

For Excavators and Contractors

\$500

Your feedback is important to us. Please fill out and return the pre-paid survey card for a chance to win a \$500 gift card.

Pipeline safety and emergency information

> Important safety information enclosed.



Enbridge Pipelines (Athabasca) Inc.

Enbridge Pipelines (Woodland) Inc.

Public Awareness Program, 2019



Enbridge Public Awareness Program

7500 River Road

Richmond, BC V6X 1X6

24-hour Enbridge emergency number: 1-888-813-6844

All pipeline markers provide the name of the pipeline operator, product being transported and a telephone number for reporting pipeline emergencies.



Click Before You Dig.com

Pipeline safety

You have received this brochure because your company is located near where Enbridge pipelines or associated facilities exist and may be involved in ground disturbance activities such as: excavation-related work, land development, dredging, construction, or facility installations.

This brochure has been designed to provide you with information regarding:

- The presence of pipelines in your community.
- How to work safely near pipelines.
- Alberta One-Call information, including how to have underground utilities properly located and marked.
- The need to obtain written approval from the pipeline owner before working near a pipeline and for vehicle crossings.
- How to recognize, report and respond in the event of an emergency.
- How to contact Enbridge in emergency and non-emergency situations.

In case of emergency:

All of our pipelines are monitored 24/7. If you suspect a pipeline emergency, please find a safe place to call 911 and then call Enbridge's toll-free emergency number.

24-hour emergency number

1-888-813-6844

How you can reach us (non-emergencies only):

Phone
1-877-640-8665

Email
CdnPublicAwareness@enbridge.com

Mail
Public Awareness Program
200, 425-1st Street SW
Calgary, AB T2P 3L8

Website
enbridge.com/publicawareness

Facebook
facebook.com/enbridge



Please read and then share the information in this brochure with others in your organization.

Our responsibility is to educate you on how to safely conduct activities near our pipelines. In turn, your responsibility is to ensure that before any activity commences, you've received the necessary approvals and confirmed the location of any underground pipelines.



Enbridge takes seriously the responsibility for the safe operation of its pipelines.

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

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

If we do disturb the ground, every effort is made to restore the land to its original condition and to protect the quality of the air and water that sustain us.

Whether it's wildlife, soil, freshwater or historical artifacts, in every aspect of our business, we work hard to preserve the natural balance of our land. To do that, we carefully plan every project from start to finish, making sure our people know what is expected and implementing programs that will help to protect the environment.

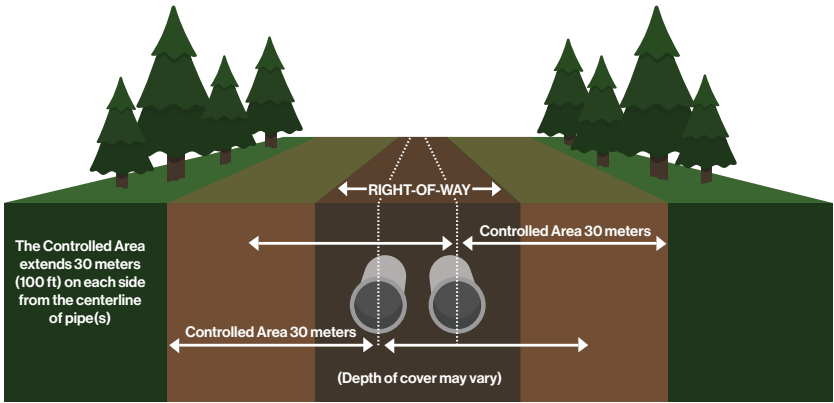
If you would like more information about the Enbridge pipelines in your area—including pipeline size, contents transported, or pipeline location—please contact us.

Being responsible for pipeline safety, however, does not mean we are in it alone.

Engaging with communities is important to us. That's why we work year-round to provide safe, reliable operations, and why we regularly communicate important safety information to utilities, contractors, local governments, emergency services, landowners, tenants, regulators and neighbours.

As an excavator, developer or utility company, you also have an important role to play, as your commitment to safe construction practices reduces the risk of pipeline damage and helps safeguard you and your employees, as well as the communities living and working along the pipeline.

Your safety, and the safety of those living and working near our pipeline, is an important part of our overall safety management system, and we continue to promote good working relationships with excavators, developers and utility companies through industry meetings, personal contact and brochures such as this one.



> In addition to the ROW where pipelines are located, the AER has established a 30-metre (100-foot) controlled area, measured perpendicularly from the centreline of the pipelines, in each direction, to protect you, the environment and the pipeline.

The ROW and pipeline markers

A right-of-way (ROW) is a strip of land of varying widths that may contain one or more pipelines.

While the depth and locations of the pipelines can vary within the ROW, the ROW:

- Identifies an area that restricts certain activities to protect public safety.
- Provides Enbridge employees and contractors access to the pipeline for inspections, maintenance, testing or in the event of an emergency.

The ROW can exist in many kinds of ecosystems, from river crossings and cultivated fields to sub-Arctic tundra and urban areas. Because of this, there is no distinct look to the ROW.

Pipeline markers are signs that indicate that a pipeline is in the area. While there are permanent pipeline markers at railways, roads and other intervals along the ROW, these show only the approximate location of pipelines. The depth and location of pipelines vary across Enbridge's systems. As such, only an Enbridge representative can accurately determine the location and depth of our pipeline in a specific area.

That's why it's important to always call Alberta One-Call at least two working days in advance of any planned ground disturbance activity. If underground utilities do exist, they will be located and identified using temporary colour-coded markings.

The Alberta Energy Regulator (AER)

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 prior notice, and in some cases written permission, before work can commence.

Ground disturbance activities

A ground disturbance is any work, operation or activity that results in the disturbance of the earth. These activities include, but are not limited to:

- Tree planting, pounding posts or building a fence.
- Excavating, digging or trenching.
- Plowing, drilling or backfilling.
- Vacuum excavating.
- Vertical or horizontal augering.
- Tunneling, boring or blasting.
- Installing an above or underground facility.
- Topsoil stripping or land levelling.
- Removing peat or quarrying.
- Clearing or grading.

When performing a ground disturbance activity, you must first contact Alberta One-Call at least two full working days prior to commencing work to request the location of any buried facilities. The One-Call centre will then notify Enbridge and request that Enbridge locate and mark any underground pipeline(s) before work can begin.

You must not proceed with a ground disturbance within the controlled area until the locating and marking of the pipeline(s) have been completed.

Per the AER's regulations, "ground disturbance" does not include:

- Cultivation to a depth of less than 45 centimetres (18 inches).
- Any other activity to a depth of less than 30 centimetres (12 inches) that does not result in a reduction of earth cover less than the cover provided when the pipeline was constructed.

Unless it falls into the above two exceptions, consider your activity a ground disturbance activity and contact Alberta One-Call before continuing work.

No ground disturbance activity may be undertaken within the pipeline ROW, or within five metres of the centreline of a pipeline where no ROW exists without first obtaining written permission from the pipeline owner.

If you are working in the controlled area, outside the pipeline ROW, you must still contact the pipeline company at least two full working days before the planned ground disturbance so that the pipeline can be located and marked.

Vehicles and mobile equipment

The AER has also set guidelines for operating vehicles or mobile equipment within the pipeline ROW.

Any vehicle crossing a pipeline that is not within the upgraded and travelled portion of an established highway or public road requires approval from Enbridge, unless:

- The vehicle or equipment is used for farming operations.
- The vehicle is an off-highway or private passenger vehicle, as defined in the Traffic Safety Act.

If your plans include a need to cross the pipeline with a vehicle or mobile equipment, please contact Enbridge to assess if the vehicle, machinery or mobile equipment is safe to cross our pipelines. We will assess the request and if approved, provide written consent including mitigation measures.

Pipeline(s) must be located and marked, and any mitigation measures in place prior to crossing pipeline(s) with equipment.

Safety checklist

If you are planning to conduct work in the ROW or controlled area, please follow these steps:

- 1 Plan your activity.** Identify the location of your work, including an area 30 metres beyond your proposed dig site, making sure to look for pipeline warning signs or marker posts.
- 2 Contact Alberta One-Call** at least two working days before planned work. If working within the pipeline ROW, written permission from Enbridge is required.
- 3 Be on-site** when the pipeline is being located to be sure you understand the meaning of the markings.
- 4 Make sure to obtain all necessary written permissions** from Enbridge if conducting work within the ROW or controlled area.
- 5 Follow all instructions** provided in the authorization including hand exposing or vacuum excavating the pipe before mechanical excavations.
- 6 Call Enbridge** at least one full working day before you backfill over any exposed pipeline. An Enbridge representative must be on site during backfill.
- 7 Immediately notify** Enbridge at **1-888-813-6844** if you come into contact with the pipe or its coating.

Step #1: Plan your activity

Ground disturbance within 30 metres of the pipeline.

If you are planning any ground disturbance activity, be sure to search records for the existence of pipelines in an area at least 30 metres beyond the proposed dig area.

If work includes activity within the ROW, remember that written permission from Enbridge is required before start of work; this includes any plans to cross or drive vehicles over the ROW. If you are working within the controlled area outside of the ROW, you must contact Enbridge and place a locate request with Alberta One-Call at least two working days prior to commencing work. Guidelines for working on or near Enbridge pipelines can be found at: enbridge.com/workingnearpipelines.

Explosives

If the work involves explosives, written permission must be obtained to blast within the 30 metre (100 foot) controlled area, and a detailed blasting plan must be filed with Enbridge as part of the application process.

Drainage improvements

If you are planning to improve drainage across or within the ROW, consult us first. Any excavation near the pipeline ROW must be supervised by an Enbridge representative, who can help maintain the safety of our pipelines.

Consulting with us as early as possible regarding your drainage proposal, including installing drain tiles, ditching, grading or deep tilling, will allow us to assess your work and set safe work procedures when working within the pipeline ROW or within the 30 metre (100 foot) controlled area.

For installations within the ROW, written permission is required.

Enbridge must also complete an engineering assessment on all non-farming equipment crossing a pipeline. Please allow sufficient time for review, assessment and documentation of your application.

A crossing application with drainage proposal layout must be sent to Enbridge early for our review and assessment. If approved, we will provide a crossing agreement. In certain cases, a header installation may be preferred in order to reduce the number of crossings and excavation activity within the ROW.

Step #2: Alberta One-Call: Call or Click Before You Dig

We know that sometimes work needs to be done on or near the pipeline. That's why we are a member of Alberta One-Call, a quick, **free** and easy communication service that notifies member companies of proposed activities so that underground infrastructure can be safely marked with flags, stakes or paint before work begins.

To protect public safety and reduce the risk of pipeline damage, you must first contact Alberta One-Call at least two working days in advance of any ground disturbance activity on or within the 30-metre (100-foot) controlled area. Please contact Alberta One-Call using the contact information on the side panel of this brochure.

**Click
Before
You Dig.com**

Know the code

Colour codes are extremely important. While not all facility owners have adopted the same coding system, it remains very important that you confirm colour markings when you see them.

APWA (American Public Works Association) Uniform Color Code

	White —Proposed Excavation
	Pink —Temporary Survey Markings
	Red —Electric Power Lines, Cables, Conduit and Lighting Cables
	Yellow —Gas, Oil, Petroleum or Gaseous Materials
	Orange —Communication, Alarm or Signal Lines
	Blue —Potable Water
	Purple —Reclaimed Water, Irrigation and Slurry Lines
	Green —Sewer and Drain Lines



Step #3: Be on site

Within two working days of placing your One-Call request, an Enbridge representative will be on-site to locate our facilities, free of charge. It's important that you are also on-site when these locates are being done.

By being on-site when Enbridge facilities are being located you can ask questions about the markings, answer questions Enbridge may have for you, and plan for any additional measures that may be needed.

For example, you may be required to:

- Hold a pre-job meeting with Enbridge to inform construction crews of safe work procedures over or near pipelines.
- Erect temporary fencing to shield the pipeline from heavy equipment and be sure that machines follow designated routes.
- Build ramps to specifications provided in Enbridge's written consent for temporary equipment crossings in order to cross safely over Enbridge's pipeline(s). An Enbridge representative must oversee ramp construction.



Step #4: Written permission

You must receive written permission prior to doing any work within the ROW. Ensure that scope of work, appropriate plans, schedule and equipment lists are provided to Enbridge in a timely manner for our review and assessment and preparation of written consent.

If your scope of work changes, you must inform Enbridge. This includes, but is not limited to: changes to scope of work, location, schedule, method of installation, and equipment to be used. We will work with you to issue a revised consent.

Be sure to follow the specific instructions provided by Enbridge as part of the consent to conduct activities.

Step #5: Follow all instructions

All persons working on your behalf, including employees, contractors and subcontractors, must be made aware of their obligations and AER requirements before any work is to start. Be sure to keep documents with safety requirements and guidance on site.

Once the locations of all buried pipelines have been marked, you must positively identify the pipe by either hand exposure or vacuum excavating. The positive identification zone for pipelines is five metres and an Enbridge representative must be present at the time of positive identification.

Once the pipeline has been positively identified, no machinery can be used to dig within five metres of the pipeline, or any distance underneath the pipeline without the direct supervision of an Enbridge representative.

Step #6: Backfilling over exposed pipe

When you are ready to backfill, please call Enbridge at least one full working day before you cover any exposed pipe. An Enbridge representative must be on site during backfill. All work must be done in accordance with the specifications listed in Enbridge's written permission.

Step #7: In case of emergency

Any contact with the pipe or its coating must immediately be reported.

Immediately notify Enbridge at **1-888-813-6844** if you come into contact with the pipe or its coating.

It is important that you know the warning signs and how to respond in the event of an emergency. Please refer to the *Emergency Information* section of this guide to read about what to do in the event of an emergency.

How errors happen

Don't assume anything.

Call or Click Before You Dig

At any pipeline location, appearances can be deceiving.

- Never assume the location of a pipeline. Wait until the Enbridge representative is on site and the pipe is located and exposed so you know the correct alignment before excavating.
- Never assume only one pipe exists in an area. There may be other facilities within your work area. That's why calling or clicking before you dig is so important, it allows Alberta One-Call to notify other member companies who might have underground utilities in the area.
- Check for underground utility marker signs. Under no circumstances does the absence of marker signs indicate an absence of underground facilities. Signs, in some instances, may be missing, stolen or vandalized. Should you become aware that any Enbridge signs are damaged or missing, please contact us.
- Remember that pipelines exist in urban as well as rural areas. When contacting utilities to locate and mark their services on a city construction site, please also contact Enbridge.

Always remember to dig with CARE:

C all or Click Before You Dig.

A llow required time for markings.

Provide adequate notice prior to starting your excavation. This provides time for companies to accurately locate and mark their facilities in your dig area.

R espect the marks.

Before you begin your excavation, walk through the site to familiarize yourself with the markings and the location of buried facilities. Confirm that all companies have responded to you, indicating they have marked your dig area.

E xcavate carefully.

It is important that you take a proactive approach to safety not only for yourself, but also for your community by initiating the One-Call process and excavating with CARE.

Protecting the people, communities and the environment near our operations is the most important part of our job.

In an emergency

Pipelines have been proven as the safest transportation mode for energy commodities.

While rare, pipeline leaks can happen. Studies have shown that third-party damage is one of the most common reasons for pipeline leaks or ruptures, which underscores the importance of Call or Click Before You Dig programs.

The liquid hydrocarbons in Enbridge's pipeline system are under pressure, hazardous, highly flammable and can be potentially explosive under certain conditions. Crude oil can also cause environmental damage when released in large volumes, so it's important to always have underground lines located and marked before any work begins.

In addition to third-party damage, pipelines can also leak as a result of a defect or some other type of pipewall damage. Internal inspection tools are used to detect potential pipe problems, which enable companies to perform investigative digs and repair the damage. Since some commodities are more flammable than others, a pipeline leak or rupture will have different consequences depending on the commodity being transported.

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.

Know the warning signs

For pipelines carrying liquid hydrocarbons, each product has individual characteristics. This means that the warning signs can vary depending on the product involved.



You might see:

- A moist patch or pool of black liquid in proximity to the pipeline or the ROW.
- A moist patch or pool of light brown or yellow liquid in proximity to the pipeline or the ROW.



You might hear:

- An unusual roaring, blowing or hissing sound coming from the area of the pipeline.



You might smell:

- An odour similar to diesel fuel or gasoline.



The Athabasca System

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

Included in the Athabasca System is the 30-inch Athabasca Pipeline which travels from our Athabasca Terminal, north of Fort McMurray, to our terminal in Hardisty. The Athabasca Pipeline Twin runs from Kirby Lake Terminal to the Hardisty area.

The Waupisoo Pipeline is a 30-inch, 380 kilometre system that transports crude from our Cheecham Station to Edmonton via Stonefell Terminal.

Enbridge's Woodland Pipeline is a 36-inch, 140 kilometre system that connects the Kearl Oil Sands Project to Enbridge's Cheecham Terminal.

Operational since 2012, Wood Buffalo Pipeline is a 30-inch oil pipeline that runs approximately 95 kilometres. The system parallels Enbridge's Athabasca Pipeline, providing capacity between our Athabasca Terminal and the Cheecham Terminal.



What to do in an emergency

If you see, smell or hear any of the warning signs, please immediately do the following.

- 1 If you can do so safely, turn off any ignition sources. Move as far away from the leak as possible in an upwind direction, avoiding contact with escaping liquids and gases.
- 2 **Call 911.**
- 3 Call the toll-free, 24-hour Enbridge emergency number: **1-888-813-6844.**
- 4 Follow instructions provided to you by Enbridge and local emergency responders.

What NOT to do in an emergency

- Do not touch any liquid or vapour that may have come from the pipeline.
- Do not start your car, drive into the area or re-enter the area.
- Do not smoke or light a match.
- Do not turn on or off anything that may create a spark, including cell phones, telephones, light switches, vehicle alarms and flashlights – until you are in a safe location.
- **Do not operate pipeline valves or attempt to stop a leak.**
- Do not remain in a building if the smell is stronger inside than outside.

We appreciate your calls, any time of the year, any time of day. This page contains important phone numbers you can use to contact an Enbridge representative with any comments or questions.

In case of an emergency, please find a safe place to **call 911** and then call the toll-free 24-hour Enbridge emergency number:

1-888-813-6844

For questions regarding Enbridge's general operations or if you need to plan construction, fencing, digging or explosives use, please call:

Alberta
1-780-420-5164 (Collect)
crossingrequests@enbridge.com

More information can also be found at: **enbridge.com/damageprevention** or **enbridge.com/crossingapplicationguidelines**

Call or Click Before You Dig

Before performing any ground disturbance activity, please visit ClickBeforeYouDig.com or contact Alberta One-Call:

Alberta One-Call
1-800-242-3447



Links for more information

AER Alberta Energy Regulator.
aer.ca

Canadian Common Ground Alliance
canadiancga.com

Alberta Common Ground Alliance
albertacga.ca

Enbridge Inc.
enbridge.com