There’s a vast amount of critical infrastructure around us – like power lines, railway tracks and highways – and we must act responsibly around them. But there is also a vast amount of critical infrastructure that is largely unseen – the infrastructure below our feet isn’t always top of mind when it comes to safety.

From our 911 system to our traffic light operations, many of the networks we rely on are actually buried underground. There are millions of kilometres of buried pipes, wires and lines – including approximately 115,000 kilometres of transmission pipelines – providing the services and products that Canadians use, and rely on, every day.

So when a construction company, municipal worker or even an avid gardener wants to start a digging project, it’s necessary they find out where the buried networks are, or their activity could pose a serious risk to the public, the environment and the infrastructure itself.

In fact, preventing pipeline damage is a shared responsibility between the public and the underground utility industry – a responsibility that CEPA members, who operate transmission pipelines, take very seriously.

### A shared responsibility

**PIPELINE OPERATORS**
- Construct pipelines according to stringent regulations and accepted practices
- Respond to locate requests in a timely manner
- Be aware and respectful of the concerns of those planning a digging project
- Be proactive in helping prevent pipeline damage

**ANYONE PLANNING A DIGGING PROJECT**
- Recognize the dangers of disturbing the ground near buried utilities, like pipelines
- Always contact a One-Call Centre or Click Before You Dig program at least three working days before a digging project.
- Mark the proposed dig area with white paint or flags.
- Wait until the lines are located
- Follow the instructions from the pipeline operator
- Report any damages to the pipeline operator immediately

DID YOU KNOW?

**Underground infrastructure**

There are millions of kilometres of infrastructure found underground in Canada, including 115,000 kilometres of transmission pipelines

Some of the biggest threats to pipeline safety are unauthorized construction, development, encroachment and digging activities

Everyone, including the public, has a role in preventing potential damage to underground infrastructure

**About Pipelines**

About Pipelines is a series, dedicated to sharing the facts about transmission pipelines in Canada and their role in Canadians’ lives. This information is provided by the Canadian Energy Pipeline Association (CEPA).

**What does ‘dig’ mean?**

If you are planning a construction and excavation project, you should contact a One-Call service centre. Projects include:
- Planting a tree
- Installing fence posts
- Landscaping
- Fixing or improving an existing ditch, drain tile or fence
- Ploughing deeper than 30 cm (12 inches)

See a full list here: bit.ly/1h4g6oB
About Pipelines

Damage Prevention

Did you know?
These are examples of pipeline right-of-way warning markers that provide important emergency information.

1. Aerial marker post
2. ROW Marker
3. Roadway Marker
4. ROW Marker

Noticing the signs
Transmission pipelines are buried within a strip of land called a pipeline right-of-way or easement, which can range from 10 to 40 metres wide. Pipeline markers dot these rights-of-way, usually near a road, rail, property line or river crossing, letting everyone know that a pipeline is buried below. But these markers don’t tell the exact location, path or depth of the pipeline – they simply identify that a pipeline is present. That’s why before any work that will disturb the ground takes place, including digging, scraping or even placing heavy equipment along the right-of-way, buried pipelines and other infrastructure must be properly located.

Getting in touch
The companies who own and operate buried infrastructure have an obligation to locate and mark where their pipelines and underground facilities are located, which is why most provinces support a One-Call Centre and/or a Call or Click Before You Dig program.

Anyone who is planning a ground disturbance project has a duty to use one of these services before digging or disturbing the ground. Damages to infrastructure are avoided 99 per cent of the time when a locate request has been made to a One-Call service centre.

Once a request is received to locate buried infrastructure, the appropriate pipeline and/or utility operators will be notified that there are planned activities nearby. Within two business days, the operators will contact the project planner to determine the next steps.

Locating the infrastructure
The project planner should always wait to hear from operators before proceeding because identifying the location of pipelines and other buried infrastructure will help prevent damage and minimize risk to the public and the environment. Also, many companies are required by regulation to provide written permission before any work can be done near or on the right-of-way.

If there are buried lines and pipes, the operator will mark their buried facilities (with stakes, flags or paint on the ground), provide a drawing of the marked location and an explanation of the markings. By following the procedures and instructions closely, damage to pipelines and other critical infrastructure is prevented, avoiding the high costs of environmental and human harm.

For more information, visit clickbeforeyoudig.com or canadiancga.com.

A high standard
Canada has a national standard for damage prevention and the protection of underground infrastructure, called CSA Z-247-15, developed by the CSA Group. This standard gives operators and the public one clear standard for keeping Canada’s underground networks safe. This includes contacting a One-Call Centre or Click Before You Dig program.

Learn more here: bit.ly/1GeJBKZ

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