

Enbridge Safety Report to the Community



Safety Report Card

In 2015 we delivered 19% more oil than 2014, with a 90% reduction in spill volume. See our Performance at a Glance, p. 4.



Shaping Our Safety Skills

A huge emergency response exercise in the Strait of Mackinac was just one of our 360 drills in 2015. See How We Prepare, p. 6.



Safe Systems 24/7/365

Last year, we completed almost 200 in-line inspections of our pipeline system. See how we maintain Safe Systems, p. 8.



Flood monitoring adds an extra layer of protection.

New system helps make pipeline watercourse crossings even safer. See page 8.

Working with our neighbors to boost safe digging.

Landowners lend their voices to promote safe digging after two incidents involving our pipelines. See page 10.

Understanding Our Business



We transport energy, operating the world's longest crude oil and liquids transportation system, and natural gas systems that extend from British Columbia to the Gulf of Mexico.

We generate energy, with growing interests in renewable and green energy technologies including wind, solar and geothermal.

We distribute energy, owning and operating Canada's largest natural gas distribution company, and providing service to more than two million customers in Ontario, Quebec, New Brunswick and New York State.

Together our team of more than 10,000 employees and contractors across the Canada and the United States strives to transport, generate and distribute the energy North America counts on as safely and reliably as possible, every day.

Our Safety Mindset

At Enbridge, safety is what matters most.

Safety is at the core of everything we do, and it has to be, because every day we move the energy that Canadians and Americans count on: millions of barrels of oil, billions of cubic feet of natural gas and renewable energy as well. Life takes energy and it's our role to safely and reliably deliver the energy that helps fuel people's lives.

We've created our *2015 Safety Report to the Community* to share more about our safety mindset and the steps we take to keep you and your communities safe, and protect every member of our team, the public and the environment.

Through the stories in this report we hope you'll see how our approach to safety is based on challenging assumptions and always striving for better performance. And, as you'll discover, last year's results show that we're making strong progress. Yet, even as we improve, we know that being safe last year doesn't count unless we continue to be vigilant and focused on being even safer today and tomorrow.

We also know safety is an active partnership with landowners, indigenous communities and the public. This report is one of the ways we're working to be a good neighbor, accountable for our actions and open about where our safety performance is strong and where it needs to improve, and highlighting our shared role in the safety of the systems that deliver the energy we all rely on.

Please take a few moments to review the *2015 Safety Report to the Community* and to visit enbridge.com and search *safety* to find out more about our safety performance last year and all that we're doing to deliver the energy you count on, more safely and more reliably, every day.



Sincerely,

Al Monaco, President and CEO



Enbridge also produces an annual Corporate Social Responsibility report which provides information on our performance, including our environmental impact, innovation, and economic and community benefits. Please view our CSR Report online at csr.enbridge.com

Contents



1

Performance at a Glance

We know you care about keeping your family, community and environment safe. So do we. That's why safety and reliability is our Number 1 priority and why we share how we're doing with you. Review our safety performance in 2015 and how it compares to previous years. [p.4](#)

2

How We Prepare

We believe that every incident can be prevented, but we practice and train—like at our emergency response drill in the Straits of Mackinac last year, and more than 360 other exercises—so we're ready to respond quickly, safely and effectively. [p.6](#)

3

How We Prevent Incidents

We all count on energy to be there when we need it, reliable and safe. We build our systems to be safe and we keep them that way through continuous monitoring, testing and maintenance, and by looking for ways to add more layers of safety—such as creating a new flood monitoring system for where our pipelines cross rivers and streams. [p.8](#)

4

How We Respond

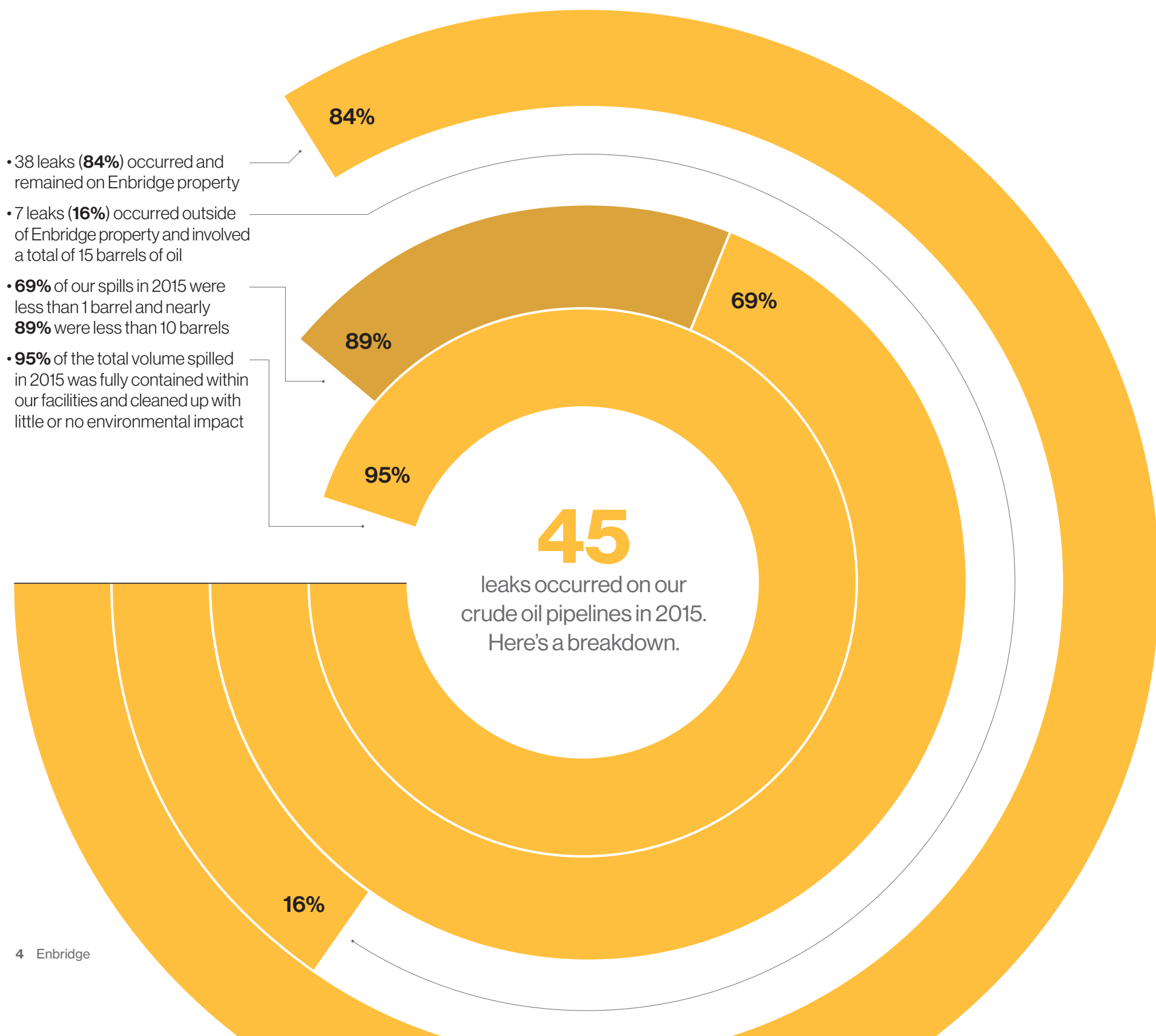
For us, incident response goes beyond getting crews on-site, keeping everyone safe and cleaning up. Find out how we connected with two landowners after line strikes on our pipelines to bring the message of safe digging to life and help prevent future incidents. [p.10](#)

On the cover: During one of the largest emergency response drills in Enbridge's history in September, 2015, NOAA personnel deploy a device to measure currents in Michigan's Straits of Mackinac to help better understand the potential trajectory of oil in water in the event of a spill. See *How We Prepare* on Page 6 to learn more.

Performance at a Glance

In 2015, Enbridge safely delivered billions of barrels of crude oil to refineries across North America to become the everyday energy we all rely on: gasoline, diesel and aviation fuel that drives our economy and powers our society. We also moved trillions of cubic feet of natural gas to heat homes and drive industry, and generated thousands of megawatts of renewable energy to power our daily lives.

While we safely delivered 2.8 billion barrels of oil last year, our record was strong but not perfect. We had a total of 45 leaks on our crude oil pipelines — 38 of them contained on Enbridge property — totaling 279 barrels. The best safe delivery record in our recent history shows that our safety focus is making a difference. But, like you, we know that even one spill is one too many, and we apply what we learn from every incident to become even safer.





Visit enbridge.com and search *2015 Safety Report* to learn more and view our interactive report online.



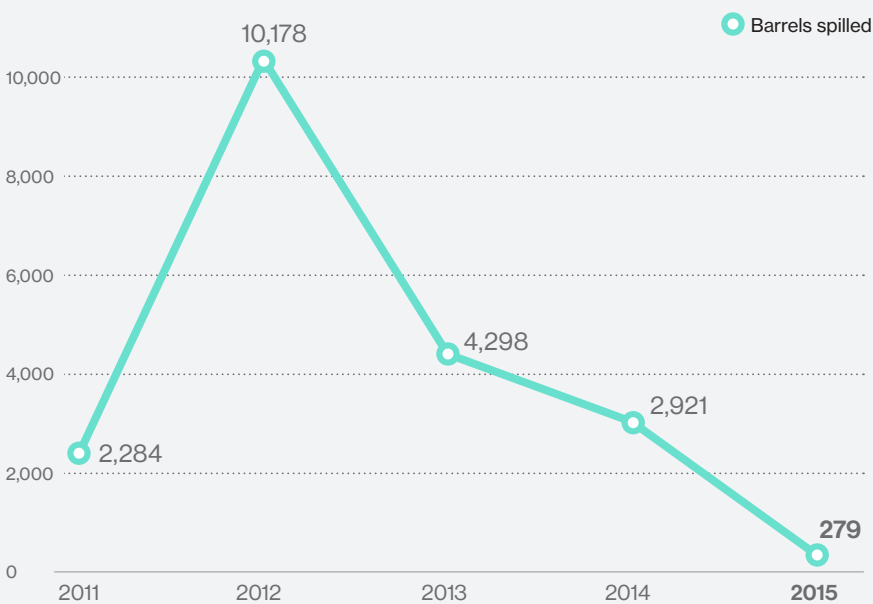
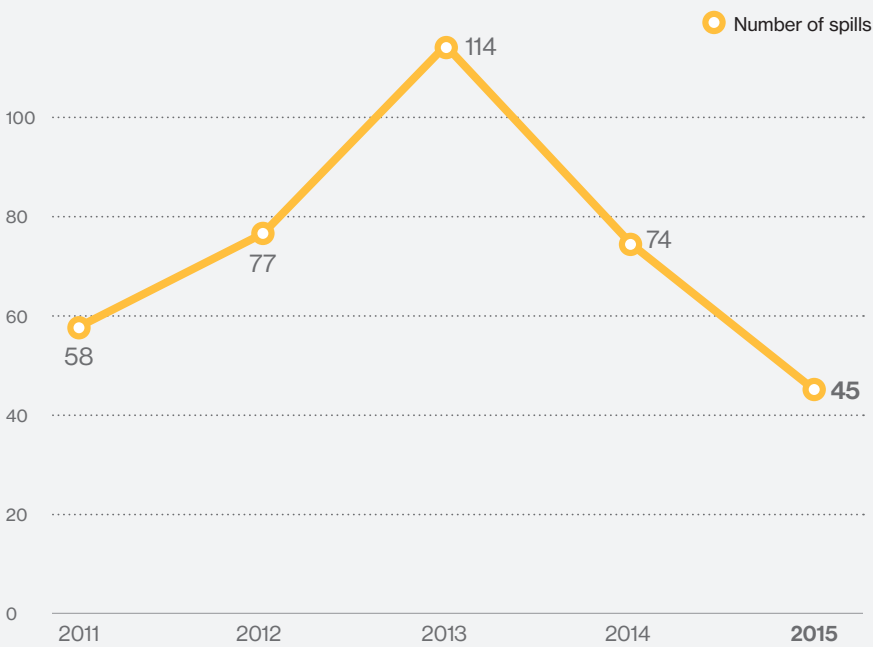
Crude Oil Pipelines

Barrels of crude oil safely delivered in 2015	2,861,591,093
Total barrels spilled in 2015 (0.00001%)	279
Barrels spilled within our facilities	264
Barrels spilled outside of Enbridge's property in 2015 (0.0000005%)	15

More oil safely delivered with fewer spills in 2015

Both in terms of the number of leaks (45) and the volume of crude oil released (279 barrels), last year was our best performance, by far, in the last decade. At the same time, the amount of crude oil we safely delivered increased significantly. We delivered nearly 19% more oil than in 2014, with a 90% reduction in spill volume.

Our spill performance over time



Natural Gas Pipelines and Processing

Every day, our natural gas pipelines move an average of almost 7 billion cubic feet of natural gas—nearly 2.5 trillion cubic feet each year—and in our gas processing business we prepare more than 3 billion cubic feet of gas for market on a daily basis.

In 2015, we had 9 federally reportable spills totaling 14 barrels of liquid, as well as one natural gas release totalling slightly more than 1 million cubic feet, vented to the atmosphere.

Gas distribution

Our gas distribution business provides reliable natural gas service to more than 2.1 million customers in Ontario, Quebec, New Brunswick and New York State.

In 2015, we safely delivered more than 422 billion cubic feet of natural gas to those customers and had no significant incidents during that time.

In-line inspections

In 2015, we completed nearly 200 in-line inspections on our crude oil and natural gas pipelines and distribution systems. These inspections—typically requiring months of planning and often costing millions of dollars—allow us to monitor the physical condition and health of the pipelines from the inside, using sophisticated tools to gather the information we need to keep our systems healthy and in excellent shape.

Visit enbridge.com and search *regular exams* for to find out more about in-line inspections.

\$1,300,000

in grants to community response agencies in 2015 and a total of \$9.3 million in Safe Community grants across Canada and the U.S. since 2002.

2.8GW

Our green power projects represent a total of nearly 2.8 GW (1.9 GW net) of renewable energy generation capacity from wind, solar, geothermal and other sources in North America and now Europe, with the potential to power more than 1 million homes.

139,123

Total hours of Environment Health & Safety training in 2015—an average of nearly 16 hours of training per employee.



2.5M

We safely deliver an average of 2.5 million barrels of oil each day through the world's most extensive oil pipeline system.



How We Prepare

Our first goal is always to prevent incidents before they happen, but we train and prepare so that if an incident does occur we are ready to respond quickly, safely and effectively, working with local first response agencies and regional and national authorities.



Emergency preparedness in 2015

Last year Enbridge held more than 360 exercises, drills and equipment deployments involving thousands of members of our team.

The objective? To stress-test our planning, practice critical emergency response activities and sharpen our preparedness so that we're always ready with the right skills, people, resources and plans if an incident occurs.

Case Study

Practice in the Straits of Mackinac

"This is a drill: At 5:30 a.m., September 23, 2015, the Enbridge Control Center in Edmonton detected a pressure drop on Line 5 under the Straits of Mackinac and immediately initiated an emergency shutdown, completing the shutdown and isolating the line within 10 minutes. An Enbridge staff member dispatched to the location has confirmed an oily sheen on the water. Repeat, this is a drill."

Last fall, those words kicked off one of the largest emergency response drills in our more than 65-year history at the location where our Line 5 pipeline crosses the Straits of Mackinac between Lake Michigan and Lake Huron.

After eight months of planning and preparation involving a dozen organizations, from Enbridge, the US Coast Guard and the US Environmental Protection Agency, to regulators, first responders and a local Native American community, hundreds of participants arrived on site in St. Ignace and Mackinaw City, MI for two days of intensive training before the drill commenced on September 24.

"We selected the Straits of Mackinac because we know that our neighbors there care deeply about protecting the Great Lakes and the local environment and have lots of questions and concerns about the safety and reliability of Line 5 where

it crosses the Straits," says Mike Koby, Vice President Enterprise Safety & Operational Reliability. "By holding the drill in a community that is watching us closely, with media and observers on hand, we tested and sharpened our emergency preparedness and also, we hope, demonstrated how committed we are and the resources and planning we have in place to protect the environment from harm."

Over the course of the day, more than 600 participants in the drill, observed by representatives of more than 20 agencies and community organizations, deployed thousands of feet of protective boom in open water and at key control points, positioned skimmers, pumps and vacuum trucks, and coordinated the actions of 20 boats and larger vessels, including the U.S. Coast Guard cutter Alder. Behind the front lines of the exercise a Unified Command team oversaw the other aspects of the drill using the Incident Command System, practicing the planning and inter-agency integration required to deliver a safe and effective response.

"We do everything we can to prevent incidents before they occur, but if they do we are determined to be ready to respond with comprehensive plans in place and the right resources and trained personnel on standby." Mike says. "This drill gave us a chance to test and refine our Straits of Mackinac Tactical Response Plan, practice open-water containment and recovery and

strengthen our skills in the Incident Command System. It also helped build the important relationships with other responding agencies that would be critical during a real incident, and boost the training and expertise of the Enbridge Enterprise Emergency Response Team."

"Ultimately, emergency response preparedness is like insurance. We hope we never have to use it, but we invest in hundreds of drills, exercises and equipment deployments each year so that we're ready if it's ever needed."

About Line 5 Straits of Mackinac

Built by Enbridge in 1953, Line 5 carries approximately 540,000 barrels of light crude oil and natural gas liquids to markets in Michigan and beyond every day. Where the pipeline crosses the Straits of Mackinac, it splits into two smaller lines with the thickest pipe wall of any line on our systems. We monitor the crossing, and all parts of our pipeline system, 24 hours a day, seven days a week, 365 days a year. We regularly inspect the line from the inside, using in-line inspection tools, and from the outside with divers and remotely operated underwater vehicles, and we operate Line 5 at less than 25% of its design capacity to further enhance safety.

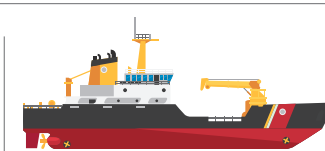
The Straits Emergency Response Exercise: By the numbers



More than 600 exercise participants



Nearly 100 observers from government, regulatory agencies, Native American groups, environmental organizations and members of the media



20 response boats including the U.S. Coast Guard cutter Alder

emergency response |



Visit enbridge.com and search *emergency response* to find out more about how we prepare to respond in the event of an incident.

Line 5 |



Visit enbridge.com and search *Straits* or *Line 5* for more information about our commitment to protecting the Straits of Mackinac and the Great Lakes.



Visit enbridge.com and search *response video* to watch a video about our exercise in the Straits of Mackinac.



1. The U.S. Coast Guard cutter Alder was one of the many response boats involved in the exercise in the Straits of Mackinac.
2. Enbridge Field Response Team deploys boom at one of the exercise control points.
3. Shoreline Cleanup Assessment Techniques (SCAT) team practices surveying an area on the north shore of the Straits as part of the exercise.



Thinking Safety. Working Safely.



Best-trained, least-used

The Enbridge Enterprise Emergency Response Team is ready for the call if it ever comes. With more than 175 personnel from all parts of the company, this elite team is specially trained each year and prepared to lead a coordinated, effective and safe response should a major incident occur. Our philosophy: our response team will be the best-trained and least-used unit within Enbridge.

Emergency response plans

We have comprehensive and up-to-date emergency response plans in place to help us respond rapidly anywhere we operate, should an incident occur. Plans include detailed tactics, maps, available internal and external resources, key contacts, environmental and community considerations and various incident scenarios with safety and response guidelines.

Visit enbridge.com and search *emergency response plans* to view the detailed regional emergency response plans for our pipeline systems.



All on the same page

We have more than 1,400 Enbridge employees trained in the Incident Command System. This approach is the standard for first response agencies across North America and allows us to all work together safely and effectively when responding to incidents.

Lessons Learned

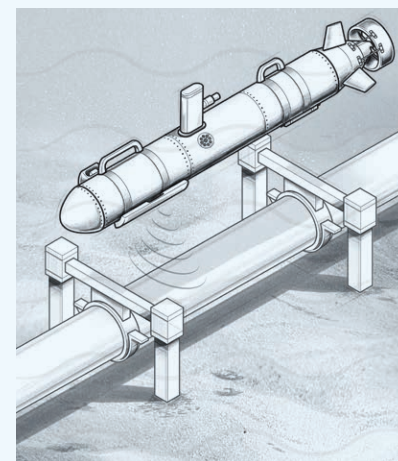
Continual improvement

An emergency response exercise or drill is about more than just practicing. We're also identifying how we can improve our skills, our relationships with other response agencies and neighbors in the area, and the key equipment and resources required to be even more effective in responding if an incident occurs.

Following our exercise in the Straits of Mackinac we're expanding our training so more Enbridge personnel have the advanced skills required to lead a safe and effective response. Our lessons learned also pointed towards having more and improved tactical response equipment available should it be needed.

While the exercise showed that we were well prepared overall, we took a closer look at our response capability and are raising the bar for oil containment and recovery on open water and in winter conditions. Over 2016 and 2017 we're adding about \$7 million of equipment in the Straits, including high-speed open-water oil recovery systems, additional booms and specialized boat-mounted skimmers to boost our safe and effective response when ice is present.

Innovation in Action



From research to reality

Following a two-year research partnership with Michigan Tech, Enbridge has a new tool to monitor Line 5 where it crosses the Straits of Mackinac. The research found that sonar-equipped Autonomous Underwater Vehicles (AUVs) are effective for mapping the bottom of the Straits which helps us monitor changes near the pipeline crossing. The sonar scans, along with inspections by divers and tethered submersibles, and in-line inspections, give us another way to keep the crossing safe.

Visit enbridge.com and search *safety in the Straits* to see a video of the AUV in action.



Skimmers, vacuum trucks and other oil recovery equipment



Three helicopters



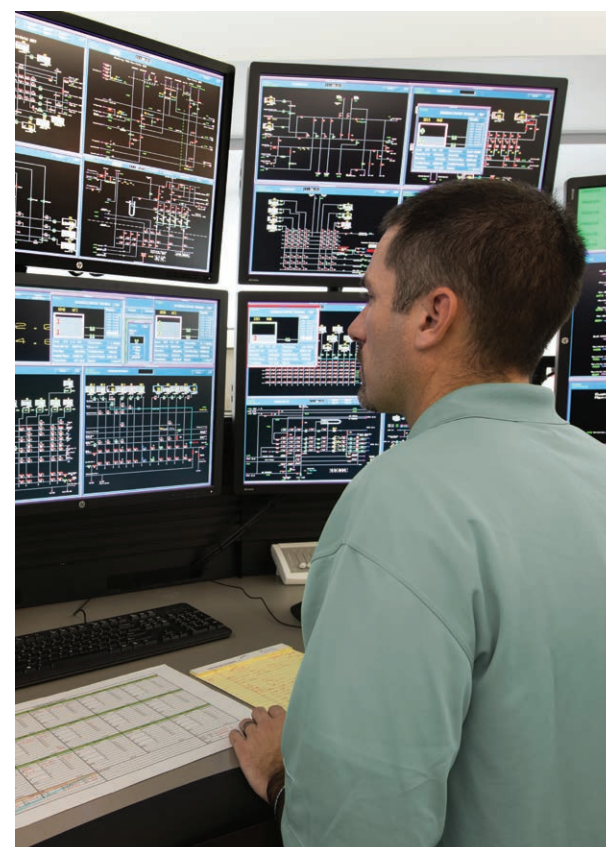
4,900 feet of boom deployed



More than 40 participating agencies, including the U.S. Coast Guard, the Michigan Departments of Environmental Quality and Natural Resources, and the U.S. Environmental Protection Agency.

How We Prevent Incidents

Life takes energy and it's our job to deliver that energy, safely and reliably, every day. That's why we constantly monitor our systems, 24/7/365, double check our performance, work to protect and enhance the fitness of our pipelines and distribution systems and continually seek additional layers of safety in everything we do, from planning and project construction to operations.



Safety from all angles

Keeping our pipelines healthy and trouble-free involves more than tracking every barrel of oil into and out of our systems every minute of the day, constantly monitoring thousands of points along the pipe, and running hundreds of in-line inspections each year. It also means looking for potential trouble from outside our systems and seeking new ways to monitor and reduce risks to make our pipelines even safer.

Case Study

Monitoring program reduces flood hazard

Mike Hill and his team had a problem: how to best manage the hazards to our pipelines at water crossings when rivers and streams are in flood. So in 2015 they created a new tool and approach to do just that.

We build our pipelines to keep watercourse crossings to a minimum, but safely crossing rivers, streams and other bodies of water, from the smallest creek to the largest river in North America, is a fact of life in the pipeline business. It's the same with building highways and railroads. You can't travel a significant distance in any given direction without encountering a watercourse that will need to be crossed, one way or another.

Of course, rivers and streams can flood, and when they do the rushing water can expose or undermine our pipelines. When there's a risk of that happening, we want to take steps beforehand to shut down and isolate the affected line, so that if a leak were to occur, the amount of crude oil released would be limited to the oil in the section of pipeline crossing the watercourse.

That's the challenge Mike and his team addressed early last year when they developed a new monitoring system to add another layer of protection where Enbridge pipelines cross waterways.

They tapped into the flood forecast and streamflow data collected by the United States Geological Survey (USGS) and Environment Canada and modeled the impact of flooding on riverbeds at thousands of watercourse crossings. Then they established monitoring for when flooding was likely and procedures to shut down and isolate affected pipelines when high streamflow exceeded a pre-set level.

"We've always treated watercourse crossings with care. From thicker pipeline steel to strategically placed isolation valves. In recent decades, we've used horizontal directional drilling to tunnel the pipeline well below the riverbed so that it is not affected by streamflow," says Mike.

"One of the crossings that we were looking at was where our Ozark Pipeline crosses the Mississippi River," says Mike. "It's a crossing where we see flooding pretty regularly and where the riverbed can change quite a bit when the Mississippi is running high."

The team launched the new flood monitoring system in April and just two months later got a chance to put it to the test when the Mississippi began to flood where the Ozark Pipeline crosses it.

"On June 21 the river rose past an early-warning level we had set beforehand so that we could make preparations to shut down the line if the flood increased past a second pre-established threshold,"

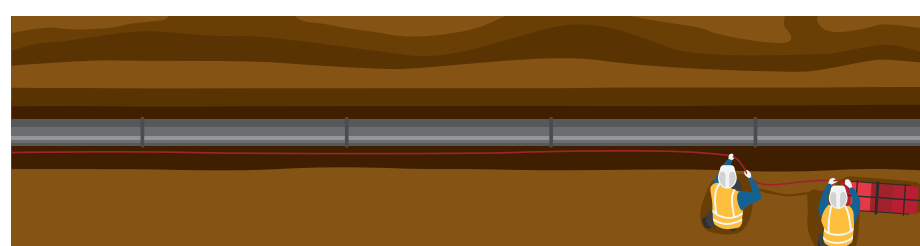
says Mike. "For seven days the river continued to flood, but below the level where we would shut down and isolate the pipeline. Then on June 28, the flood waters rose and the Control Centre in Edmonton and our operations folks in the region took quick action to shut down the line and close the isolation valves."

Five days later, after the water had receded to safe levels, the local operations team got out on the river and surveyed the line. Even though the survey showed that the pipeline was safe to restart, the operations team, the Control Center and the pipeline integrity group took a conservative approach, completing a second survey, reviewing other potential threats to the health of the line and undertaking an engineering assessment before giving the go-ahead to begin safely moving crude oil through the line again.

"Creating the flood monitoring system gave us another tool to keep an eye on our pipelines so that we can be even more proactive in controlling hazards that could contribute to an incident. We're always trying to improve all of our monitoring programs and systems to be ready for whatever comes our way," says Mike. "It's the Enbridge way—continually working to make our systems safer and more reliable—and I'm proud to be part of the team that has added another layer of safety to how we transport the energy North America counts on."

By the Numbers

We're field testing innovative fiber optic leak-sensing cables along a 20-mile stretch of our newly built Flanagan South pipeline. These new technologies use specialized fiber optic cables to monitor temperature and sound to detect very small leaks, adding another layer of protection for our systems.



safe systems |



pipng up for technology |



Visit enbridge.com and search *safe systems* to find out more about how we keep our pipelines and other assets in top shape to deliver the energy you count on.

Visit enbridge.com and search *pipng up for technology* to read about research and innovation Enbridge is undertaking to make our systems safer and more reliable.

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Thinking Safety. Working Safely.

How the flood monitoring system works

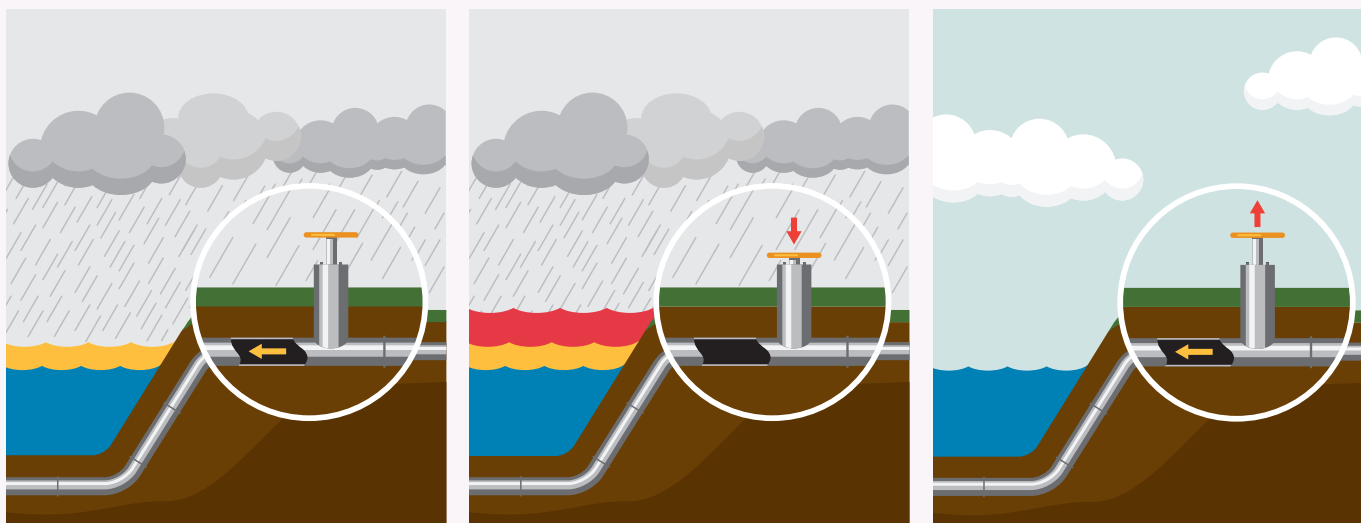
Enbridge worked with an engineering firm to individually assess each of the thousands of watercourse crossings on our systems across North America and model potential flood impacts at each location.

The flood monitoring system applies the continuous, real-time streamflow data from thousands of monitors across North America operated by the USGS and Environment Canada, to the models of the watercourse crossings.

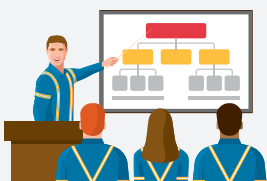
When the streamflow at a given crossing rises above a warning threshold in the model, the system alerts Enbridge teams that flooding may occur at that location and to be ready to shut down the pipeline if necessary.

If the streamflow rises above a second threshold past which currents could cause erosion and expose the pipeline, Enbridge teams shut down and isolate the pipeline until the water recedes and the safety of the pipeline can be confirmed.

When the streamflow decreases again, Enbridge confirms that the pipeline is safe to restart and brings it safely back into operation.



Lessons Learned



The incident that didn't happen: a human factors success story

Since 2014, Enbridge has been focusing on human factors—the way people interact with one another, systems and their environment, and how our human nature can lead to unsafe decisions and actions even when we think we're being safe.

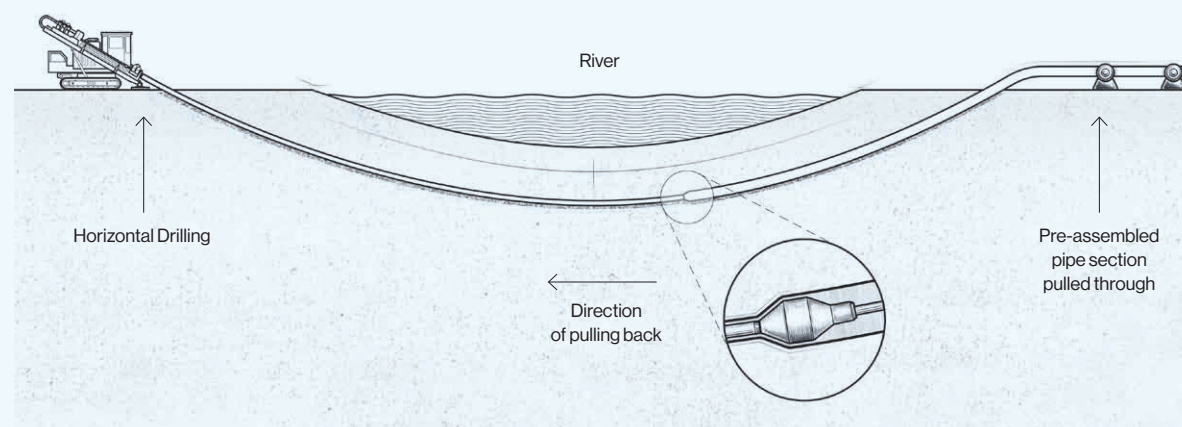
In 2015, we created case studies examining incidents where human factors such as confirmation bias or focus on the wrong risks may have led us into danger.

But when we heard the story of the team that developed and implemented Enbridge's flood monitoring system, we saw an opportunity to look at human factors in a different light.

"It might seem a little odd to try to tell a story about an incident that didn't occur," says Brad Burlock, Manager of Safety with Enbridge's Enterprise Safety team, who led the development of the case study, which Enbridge shared with employees and contractors right across the organization. "But when we looked at the timeline of actions and decisions, and talked with the folks involved, we discovered that there were some really strong lessons to share about teams collaborating, recognizing and managing the effects of human factors and keeping safety front and center."

Innovation in Action

We often use horizontal directional drilling to minimize the impact of river and stream crossings and to place the pipeline well below the riverbed, out of harm's way from flooding or erosion when geological conditions and other factors are favorable. The technique involves drilling an arched tunnel under the watercourse and pulling a pre-assembled pipe section back through the tunnel.



Digging deep for a safer pipeline.

While the Ozark Pipeline watercourse crossing of the Mississippi River is where Enbridge first put its new flood monitoring system into action in mid-2015, since then we've taken permanent steps to address the flood hazard for our line at that location.

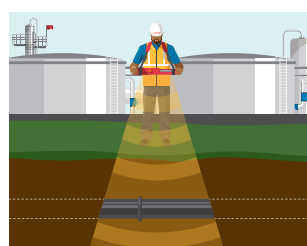
The line has operated safely for decades and successfully weathered every Mississippi flood since it was built, but Enbridge wanted to make the river crossing even safer and take floods out of the equation altogether.

Using advanced horizontal directional drilling technology, Enbridge worked with contractor Southeast Directional Drilling to bore a tunnel 65 feet below the riverbed of the Mississippi and then pull through a nearly three-quarter-mile segment of pre-assembled new pipeline, replacing the existing line which ran in a trench on the river bottom.

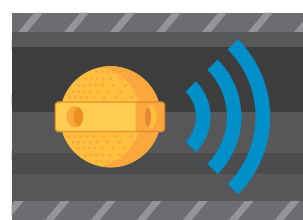
Enbridge completed the \$23 million dollar project in March of 2016, an engineering feat that has made an already safe and reliable system even safer and more reliable than before.



We've installed 15 cameras at one of our pipeline pump stations in Alberta as part of a pilot project to develop new above-ground leak detection and security monitoring capabilities for use at our stations and terminals.



In 2015 we used magnetic tomography to inspect facility piping—totaling 13 km in length—in six of our Canadian pipeline pump stations, allowing us to create detailed 3-D images of the pipes and fittings to identify features requiring a closer examination.



We've used SmartBalls to listen for tiny leaks along more than 30,000 miles of Enbridge's oil and gas pipelines. Equipped with a sensitive microphone and silently propelled by the flow of oil or gas, SmartBalls complement our extensive in-line inspection program.

How We Respond

Our systems are built to be safe and our people are focused on safety, trained and prepared to respond in the event of trouble. While we strive to prevent incidents before they occur, when they do we respond quickly, safely and effectively, to minimize the impact on people, communities and the environment, and to take steps to prevent similar incidents in the future.

Going further

In an incident, we shut down our systems right away and quickly get crews on site to lead an effective and safe response and cleanup. But our response doesn't end there. We're focused on preventing other incidents in the future and that means looking at everything from building awareness with our neighbors to continually engineering more safety into our systems.

Case Study

Turning two close calls into a call to action

"It could have been a catastrophe." With these words, landowner James Wood sums up the June 2015 incident on his property near Paradise, TX, where a contractor struck and punctured a gas gathering pipeline while clearing brush. The escaping natural gas sprayed debris and blew out the window of the bulldozer, but fortunately did not ignite and the contractor was able to get safely away and call Enbridge to shut down the line and respond.

Four months later and nearly 1,200 miles to the north, a similar incident occurred on Enbridge's crude oil pipeline system when John and Rick Proulx were clearing brush from land on their farm near St. Hilaire, MN.

They knew they were working near the Enbridge mainline—as many as seven parallel underground pipelines that carry different types of crude oil and petroleum products—but hadn't called for the lines to be located and marked.

It felt like I hit a rock," recalls John, who thought he knew the location of the pipeline. "It didn't sound quite right, so that's when I got off the backhoe and went down into the hole and found out it was the pipe."

Fortunately, while the Line 2 pipeline was damaged in three places, it was still intact. The father and son called Enbridge's emergency line, and the control center operators immediately shut down and isolated all the pipelines in the area, dispatching local crews who arrived on site within the hour.

These two incidents, in two different parts of our business, highlight one of the most persistent and widespread hazards we must manage to protect the health of our pipelines, gathering and distribution systems: unsafe digging and ground disturbance.

In both cases, we responded immediately and decisively, with the lines quickly shut down to minimize the risk and teams on site right away to begin repairs. In Texas, we replaced the line where it crossed a creek bed, using horizontal directional drilling to situate the new pipe 18 feet below ground, and in Minnesota pipeline crews repaired and reinforced the line with sleeves.

But Kesley Tweed, Enbridge's Houston-based Manager of Strategic Partnerships & Public Awareness, notes that was just the beginning of Enbridge's response.



Today, in a pair of powerful public service videos, Wood and the Proulx candidly discuss the incidents on their properties—and how they could have been avoided by calling 811 or visiting clickbeforeyoudig.com.

"We're always looking for ways to improve safety, for the public, our team and the environment," says Kesley, whose job involves programs and outreach to landowners, farmers and excavators to build awareness around our energy infrastructure. "Mr. Wood and the Proulx family knew what close calls they'd had. They truly felt remorse for what had happened and they realized how bad it could have been. They wanted to share their stories so it wouldn't happen to someone else."

"It was very clear," adds Kesley, "that they just wanted to keep other people safe and prevent something bad from happening to their neighbors."

For Kesley, the videos will be a success if they prompt everyone who is planning digging or ground disturbance to call or click before they start their work.

"The foundation of our business is safety," she says. "It's our job. You're not bothering us when you call. Even if you've been digging in the area before, even if your family has owned the land for 60 years, put safety first and make the call."

About the Landowners John and Rick Proulx

The Proulx family has been farming land in Pennington County, MN, and the surrounding area for more than 50 years. Father and son team, John and Rick, specialize in wheat and soybeans and share the farm with John's brother. Both enjoy woodworking, travel and collecting John Deere memorabilia.

About the Landowner James Wood

James Wood is a car dealer in Decatur, TX. With a passion for wide open spaces, he farms about 3,500 acres in North Texas and buys, improves and sells land. A prominent businessman, Wood is active in his community, where he has spent most of his 78 years.

"These two incidents, in two different parts of our business, highlight one of the most persistent and widespread hazards we must manage to protect the health of our pipelines, gathering and distribution systems: unsafe digging and ground disturbance."

By the Numbers

 **950,000**

Nearly 950,000 public awareness and pipeline safety mailings delivered to affected public, excavators, public officials, schools, farmers, landowners and tenants along our pipeline systems in Canada and the U.S. in 2015.



On August 11, (that's 8/11 on the calendar) Enbridge partners with other utility operators and government agencies to drive awareness of safe digging and the U.S.-wide 811 Call Before you Dig number. Over the years, we've collaborated on advertising 811 day at NASCAR events, football games and the Olympics. On August 11, 2015 we had 811 ads behind the home plate in nearly every Major League Baseball game.

how we respond |



Visit enbridge.com and search *how we respond* to find out more about our focus on a safe, effective and thorough response if an incident occurs.



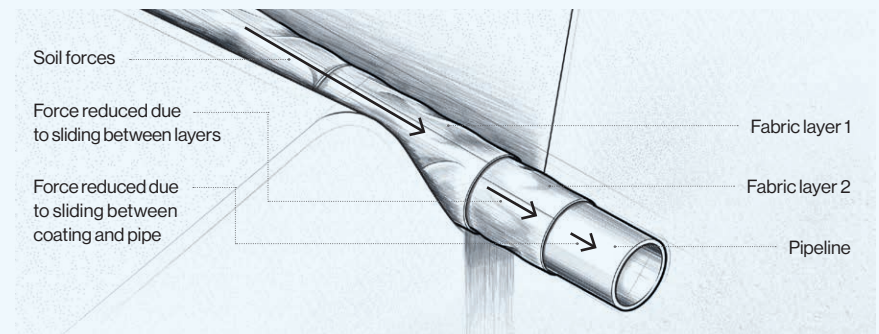
Visit enbridge.com and search *safe digging* to view the videos featuring James Wood and John & Rick Proulx.

4



Line locators use specialized tools to identify and clearly mark underground utilities to prevent them from being damaged during excavation.

Innovation in Action



Responding to ground movement

Most of us tend to think of the ground as pretty stable and not likely to go anywhere. After all, we build our houses, offices, hospitals, airports, highways and railways on it.

We also bury our pipelines under the ground. So at Enbridge we plan our routes and build our systems so we avoid areas with lots of ground movement, but in a few places our lines do cross slopes that can move—a little—perhaps a few inches per year.

Not much, you might think, but over time it can add up. Ground movement can potentially put stress on an affected pipeline, eventually causing it to deform or buckle.

So, in addition to careful route selection and ongoing monitoring and maintenance, how can we protect a pipeline from ground movement? By putting the latest research into action and wrapping it in two layers of low-friction geotextile fabric. With this technology in place, when the ground moves it grips the fabric which can slide along the pipe, and the pipe itself doesn't move as much.

Visit enbridge.com and search *slope friction* to find out more about how Enbridge manages slope movement.

Thinking Safety. Working Safely.

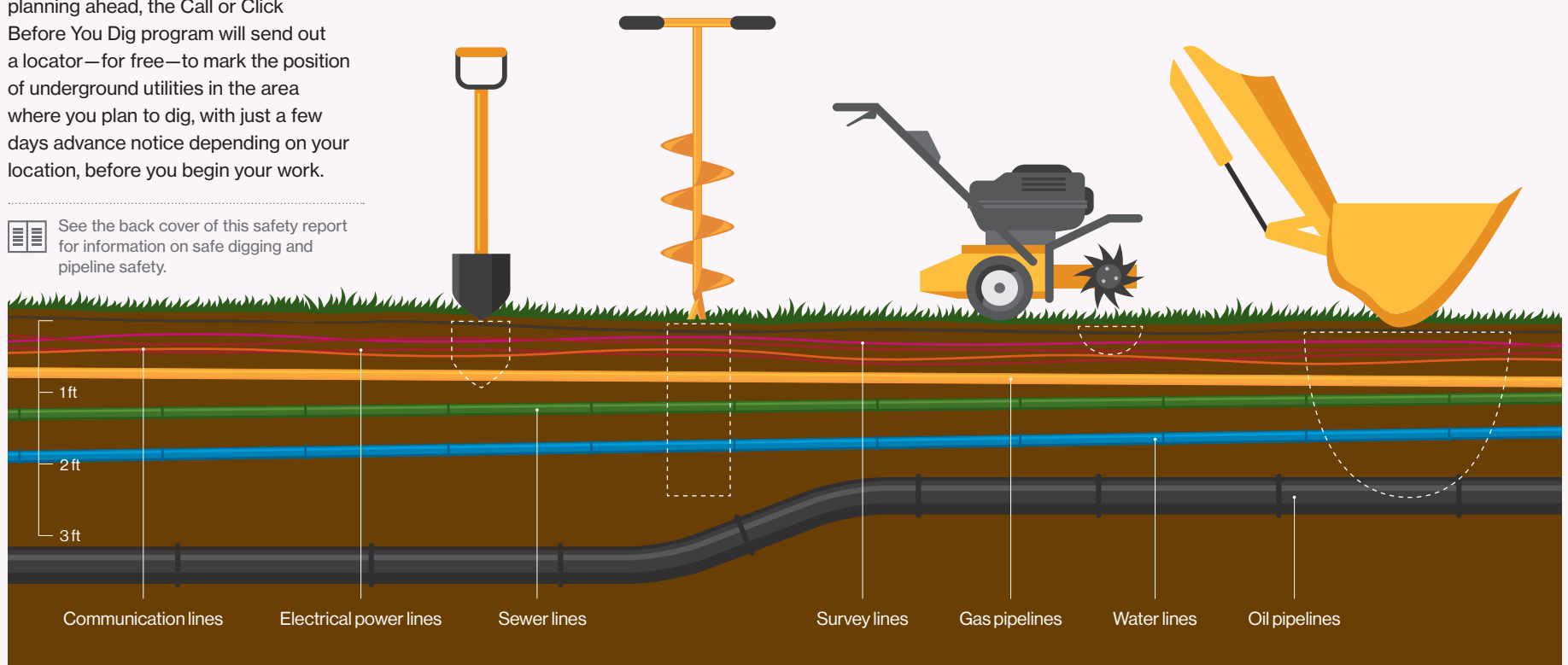
What you can do to dig safe

Line strikes are all too common, despite year-round outreach to inform the public and key groups about the hazards of unsafe digging as well as the convenience of the North America-wide Call or Click Before You Dig program. With a little planning ahead, the Call or Click Before You Dig program will send out a locator—for free—to mark the position of underground utilities in the area where you plan to dig, with just a few days advance notice depending on your location, before you begin your work.

See the back cover of this safety report for information on safe digging and pipeline safety.

The depth of underground lines can vary from just a few inches beneath the surface, to more than 10 feet. Even everyday tools like shovels can cause serious damage if lines aren't properly located and marked prior to digging. That's why we encourage everyone to dig with **CARE**.

- C** Call 811 in the U.S. or visit Click Before You Dig in Canada
- A** Await the locates
- R** Respect the marks
- E** Excavate with Care



Your Role in Safe Energy Delivery

Enbridge's Number 1 priority is safety—of the public and the communities where we live and work, of the over 10,000 members of our team across North America, and of the environment.

We're continuously striving to improve our safety performance so that we can transport, generate and deliver the energy we all count on as safely as possible.

You have a role to play as well in the safe and reliable operation of the energy systems that power our communities and society.

How you can help

There are two key ways you can contribute to the safety and reliability of Enbridge's systems in your community.

First, make sure to call or click before you dig. It's free, helps prevent accidental damage to our systems and could save your life.

In the United States call 8-1-1, and in Canada visit clickbeforeyoudig.com, two to three working days before you plan to do any excavation—from landscaping activities like planting trees, digging a new garden or building fences, to clearing brush or larger construction work—so that a locator can visit and mark underground utilities.

Second, be aware of the warning signs of a pipeline or gas distribution system leak and know what to do to stay safe in the event of an emergency.

Visit enbridge.com and search *recognizing a pipeline leak* to find out how to identify a potential leak and the critical safety actions you should take in the event of an incident.

If an incident occurs, your quick action and notification of emergency services and Enbridge can save lives and help protect your home, your community and the environment. If you suspect a pipeline or gas distribution system leak or emergency, first make sure that you and those around you are safe and then, when it is safe to do so, call 9-1-1 and then call Enbridge's 24-hour emergency hotline for your area.

Emergency Contacts

Crude oil pipeline emergencies

CANADA

Alberta, Saskatchewan, Manitoba, Ontario, Quebec
1-877-420-8800

UNITED STATES

Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Eastern Montana, New York, North Dakota, Ohio, Eastern Oklahoma, Wisconsin
1-800-858-5253

Texas, Western Oklahoma, Arkansas
1-888-650-8099

Louisiana
1-877-548-1800

Natural gas pipeline emergencies

CANADA AND THE UNITED STATES

1-888-650-8099

Renewable and power transmission emergencies

CANADA AND THE UNITED STATES

1-888-650-8099
Alberta and Western Montana electric transmission line
call 911 then call 1-888-780-8831

Natural gas distribution and storage emergencies

CANADA

Ontario
1-866-763-5427 (Gas)
1-800-255-1431 (Gas storage)

Quebec (Gazifère)
1-819-771-8321

Enbridge Gas New Brunswick
1-800-994-2762

St Lawrence Gas
1-800-673-3301

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