

## Transmission Pipeline Mapping

The National Pipeline Mapping System (NPMS) is a geographic information system (GIS) created by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS) in cooperation with other federal and state governmental agencies and the pipeline industry to provide information about pipeline operators and their pipelines. The NPMS Web site is searchable by ZIP code or by county and state, and can display a county map that is printable.

Within the NPMS, PHMSA has developed the Pipeline Integrity Management Mapping Application (PIMMA) **for use by pipeline operators and Federal, state, and local government officials only.** The application contains sensitive pipeline infrastructure information that can be viewed via internet browser. Access to PIMMA is limited to Federal, State, and Local Government officials as well as pipeline operators. PIMMA access cannot be given to any person who is not a direct employee of a government agency.

For a list of pipeline operators with pipelines in your area and their contact information or to apply for PIMMA access, go to [www.npms.phmsa.dot.gov/](http://www.npms.phmsa.dot.gov/). Operators of production facilities, gas/liquid gathering piping and distribution piping, are not represented by NPMS nor are they required to be.

**For more information regarding pipeline safety and an overview of the pipeline industry please visit the following Web sites:**

### Pipeline Resources and Information

- Call Before You Clear - [www.callbeforeyouclear.com](http://www.callbeforeyouclear.com)
- Pipeline 101 - [www.pipeline101.com](http://www.pipeline101.com)
- Pipelines and Informed Planning Alliance- [www.pipa-info.com](http://www.pipa-info.com)
- Association of Oil Pipe Lines (AOPL) - [www.aopl.org](http://www.aopl.org)
- American Petroleum Institute (API) - [www.api.org](http://www.api.org)
- Interstate Natural Gas Association of America (INGAA) - [www.ingaa.org](http://www.ingaa.org)
- American Gas Association (AGA) - [www.aga.org](http://www.aga.org)
- Common Ground Alliance (CGA) - [www.commongroundalliance.com](http://www.commongroundalliance.com)
- 811 - [www.call811.com](http://www.call811.com)
- Gopher State One Call - [www.gopherstateonecall.org](http://www.gopherstateonecall.org)
- Minnesota Regional CGA: [www.mncga.com/](http://www.mncga.com/)

### Regulatory Agencies

- Department of Transportation (DOT) - [www.dot.gov](http://www.dot.gov)
- Office of Pipeline Safety (OPS) - [www.phmsa.dot.gov](http://www.phmsa.dot.gov)
- National Transportation and Safety Board (NTSB) - [www.nts.gov](http://www.nts.gov)
- Federal Energy Regulatory Commission (FERC) - [www.ferc.gov](http://www.ferc.gov)
- Federal Energy Regulatory Commission (FERC - Oil Pipelines) - [www.ferc.gov/industries/oil.asp](http://www.ferc.gov/industries/oil.asp)
- Occupational Safety & Health Administration (OSHA) - [www.osha.gov](http://www.osha.gov)
- National Fire Protection Association (NFPA) - [www.nfpa.org](http://www.nfpa.org)
- Minnesota Office of Pipeline Safety (MNOPS) - <http://dps.mn.gov/divisions/ops>
- National Pipeline Mapping System - <https://dps.mn.gov/divisions/ops>

## Minnesota Pipeline CAER Members

Alliance Pipeline  
Austin Utilities  
Centennial Utilities  
CenterPoint Energy  
Cities of Fairfax-Gibbon  
City of Brownton Municipal Natural Gas  
City of Duluth Public Works & Utilities Dept  
City of Hallock  
City of Stephen  
City of Tyler, MN  
Dooley's Natural Gas  
Enbridge Energy Company, Inc.  
Enterprise Products  
Flint Hills Resources Pipelines and Terminals  
Great Plains Natural Gas Company

Greater Minnesota Gas & Transmission  
Heartland Corn Products  
Hibbing Public Utilities  
Hutchinson Utilities Commission  
Lake Region Energy Services  
Lakes Community Cooperative  
Magellan Midstream Partners, L.P.  
New Ulm Public Utilities Commission  
New York Mills Municipal Gas  
Northern Natural Gas  
Northwest Gas  
NuStar Pipeline Operating Partnership LP  
Onward Energy  
Owatonna Public Utilities  
Paul Bunyan Natural Gas, LLC

Pembina Cochin LLC  
Petroleum Fuels Company  
Sheehan's Gas Company  
Suburban Propane  
United Natural Gas  
Virginia Department of Public Utilities  
WBI Energy Transmission  
Xcel Energy

For additional information regarding a specific pipeline operator or underground utility, please contact company directly. Contact information for each member company can be found on our website at [www.mncaer.com](http://www.mncaer.com)



Pipeline Safety & Awareness Information for Public Officials

Spring 2025

## Safety and Efficiency of Pipeline Systems in Minnesota

Pipelines are the safest and most efficient means of transporting natural gas and petroleum products, according to National Transportation Safety Board

statistics. In the United States alone, there are over 200,000 miles of petroleum pipelines and 300,000 miles of natural gas transmission pipelines in use every

day. These pipelines transport the natural gas, which provides about 24 percent of all the energy used in the United States, and over 700 million gallons of petroleum products per day, to American consumers and businesses.



Local distribution companies (LDCs) deliver natural gas to most homes and businesses through underground main and natural gas service pipelines. These lines cover over 800,000 miles of underground pipeline in the United States.

When you learn and follow the guidelines contained here, not only do you help ensure that energy and natural resources continue to flow smoothly and safely to your town and other towns like it, but you also become a steward of the environment.

### IN THIS ISSUE:

**Safety and Efficiency of Pipeline Systems in Minnesota**

**What do pipelines transport and what are the potential hazards?**

**Call 811 before you dig**

**Planning, Zoning & Property Development**

**What do the pipeline companies do in the event a leak was to occur?**

**What can you do to help?**

**Call before you clear**

**How do pipeline companies facilitate safety, integrity & reliability of their systems**

**How would you know where a pipeline is?**

**How would you recognize a pipeline leak?**

**Transmission Pipeline Mapping**

**Minnesota Pipeline CAER Members & Emergency Contact Numbers**

**Helpful Web sites**

## What do pipelines transport and what are the potential hazards?

Many pipelines transport petroleum products and natural gas. Some pipelines transport other hazardous products such as chemicals, highly volatile liquids, anhydrous ammonia, or carbon dioxide. Exposure to these products can be harmful if inhaled, and can cause eye and skin irritation, and difficulty in breathing.

Fortunately, pipeline accidents are extremely rare, but they can occur. Natural gas and petroleum products are flammable and potentially hazardous and explosive under certain conditions. Pipeline companies undertake many prevention and safety measures to ensure the integrity of their pipeline systems.

You can obtain more specific information regarding pipelines and the products they

carry by contacting the pipeline company directly.





**Call 811 before you dig,  
IT'S FREE, AND IT'S THE LAW!**

811 is a federally-mandated number designated by the FCC to consolidate all local "Call Before You Dig" numbers and help save lives by minimizing damages to underground utilities. One easy phone call to 811 starts the process to get all utility and pipeline company-owned lines marked for FREE. When you call 811 from anywhere in the state, your call will be routed to the Gopher State One-Call Center. The law requires that you call 48 hours (excluding weekends & holidays) before you begin your project. Once your underground lines have been marked for your project, you will know the approximate location of your pipelines and utility lines, and can continue your project by digging with care and respecting the marks. More information regarding 811 can be found at [www.call811.com](http://www.call811.com).

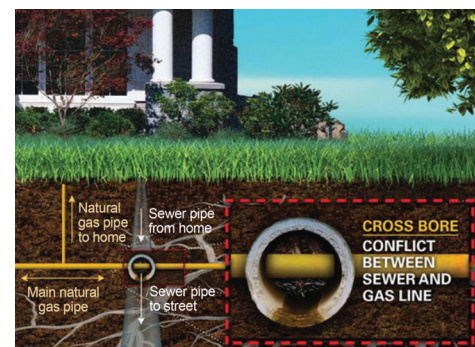
Excavators must notify the pipeline company directly or through the One-Call Center immediately but not later than two hours following a damage incident.



**Call before you clear**

Cross bores can be dangerous because the mechanical equipment used to unclog sewer pipes can easily penetrate a natural gas pipe and lead to the dangerous release of natural gas.

If you are having trouble with your sewer, or think you have a blockage, make sure the natural gas utility serving the area is contacted first (either by you or your sewer cleaner). More information can be found at [www.callbeforeyouclear.com](http://www.callbeforeyouclear.com)



**Planning, Zoning and Property Development**

It is crucial to coordinate with pipeline operators to take the location of pipelines into consideration in land use plans, zoning, and property development activities. Developments can make use of pipeline easements as open spaces and greenway connectors. Pipeline depth is a crucial consideration during development planning. Changes to the topography on either side of the pipeline may impose unacceptable stresses on the pipeline. Public officials can enhance

public safety by working with pipeline operators to coordinate development of site plans where large numbers of people congregate, including schools, churches, etc. or other high consequence areas. The Pipelines and Informed Planning Alliance (PIPA) encourages the adoption and implementation of PIPA-developed recommended practices related to risk-informed land use planning near transmission pipelines. Go to [www.Pipa-info.com](http://www.Pipa-info.com) for additional information.

**What do the pipeline companies do in the event a leak was to occur?**

Top priorities in any pipeline emergency response is public safety and environmental protection. In order to prepare for the event of a leak, pipeline companies regularly communicate, plan and train with local emergency personnel such as fire and police departments. Upon the notification of an incident or leak, either by the pipeline company's internal control center or by phone, the pipeline operator will immediately dispatch trained personnel to assist public safety officials in their response to the emergency. Pipeline operators will also take steps to minimize the amount of product that leaks out and to isolate the pipeline.



**The pipeline company's control center may:**

- Stop or reduce the flow of product

**What can you do to help?**

While leaks with pipelines and pipeline facilities are very rare, damages to pipelines are more likely to occur. Awareness of the location of the pipeline, the potential hazards, and what to do if a leak does occur can help minimize the number of accidents that do occur.

A leading cause of transmission & local distribution pipeline leaks occur because of unsafe digging by third parties. Pipeline companies are responsible for the safety and security of their respective pipelines. To help maintain the integrity of pipelines and their rights-of-way, it is essential that pipeline and facility neighbors protect against unauthorized excavations or other destructive activities. Here's what you can do to help:

- Dispatch pipeline emergency response personnel and equipment to the emergency site
- Inform you of any special precautionary recommendations
- Act as a liaison between emergency response agencies and pipeline company personnel
- Help bring the emergency to conclusion as quickly and safely as possible

- Become familiar with the pipelines and pipeline facilities in the area (marker signs, fence signs at gated entrances, National Pipeline Mapping System, etc).
- Record the company name, 24-hour emergency contact information and any pipeline information and keep in a permanent location near the telephone.
- Be aware of any unusual or suspicious activities or unauthorized excavations taking place within or near the pipeline right-of-way or pipeline facility; report any such activities to the pipeline operator and local law enforcement.
- Contact your pipeline operators to verify their Emergency Preparedness Response plans contain current contact information for your community/county.

**How do pipeline companies facilitate safety, integrity and reliability of their systems?**

Even though most transmission pipelines are made of steel, covered with protective coatings and buried underground, pipeline companies invest significant time and capital maintaining the quality and integrity of their pipeline systems. Most active pipelines are monitored 24 hours a day via manned control centers. In addition, pipeline companies utilize aerial surveillance and/or on-ground observers to identify potential dangers to their pipelines, such as construction or excavation activities or possible leaks. Control center personnel continually monitor the pipeline system and assess changes in pressure and flow along the pipeline. They notify field response personnel if there is a possibility of a leak or release of product. Automatic

shut-off valves are sometimes utilized to isolate a leak.

Pipeline operators have developed supplemental hazard and assessment programs known as Integrity Management Programs. Integrity Management Programs have been implemented for areas designated as "high consequence areas" in accordance with federal regulations. Specific information about an operator's program may be found on their company website, or by contacting them directly. State and federally regulated pipeline operators maintain Damage Prevention Programs. The purpose of these programs is to prevent damage to pipelines and facilities from excavation activities.



**How would you know where a pipeline is?**

Pipeline markers are important for the safety of the general public and provide emergency responders with critical information. Most pipelines are underground, where they are more protected from the elements and minimize interference with surface uses. Even so, pipeline rights-of-way are identified by pipeline markers along pipeline routes that identify the approximate—NOT EXACT—location of the pipeline. Every pipeline marker contains information identifying the company that operates the pipeline, the product transported, and a phone number that should be called in the event of an emergency. Markers do not indicate pipeline burial depth, which will vary. Markers are typically seen where a pipeline intersects a public road, highway, waterway or railway. For any person to

willfully deface, damage, remove, or destroy any pipeline marker is a federal crime. Local distribution pipelines are not typically identified with pipeline markers. A call to 811 will help identify the location of these pipelines.

**Pipeline Marker** — This marker is the most commonly seen. It contains operator information, type of product, and an emergency contact number.

**Aerial Marker** — These skyward facing markers are used by patrol planes that monitor pipeline ROW.

**Casing Vent Marker** — This marker indicates that a pipeline (protected by a steel outer casing) passes beneath a nearby roadway, rail line or other crossing. Sometimes overflow of product may be seen.



**How would you recognize a pipeline leak?**

Although pipeline leaks are rare, knowing how to recognize and respond to a possible leak is a key component in pipeline safety. Trust your senses. You may recognize a pipeline leak by:

- **Sight:** Liquid pools, discolored or abnormally dry soil/vegetation, continuous bubbling in wet or flooded areas, an oily sheen on water surfaces, and vaporous fogs or blowing dirt around a pipeline area can all be indicative of a pipeline leak. Dead or discolored plants in an otherwise healthy area of vegetation or frozen ground in warm weather are other possible signs.
- **Sound:** Volume can range from a quiet hissing to a loud roar depending on the size of the leak.
- **Smell:** An unusual smell, petroleum odor, or gaseous odor will sometimes accompany pipeline leaks.
  - Gas transmission/gas gathering pipelines are odorless, but may contain a hydrocarbon smell.
  - Highly Volatile Liquids (HVL's) can be odorless and colorless in their natural state and most are considered irritants to eyes and nose. Commercial odorants are added to many HVL's to assist in detection of a leak.
  - Gas distribution systems are odorized with the chemical Mercaptan or other similar chemicals.
  - Mercaptan is a harmless non-toxic chemical that is added to make it easier to detect a gas leak due to its "rotten egg" odor.
  - Landfill gas, which is becoming a popular source of natural gas, has a more pungent and unpleasant odor similar to the smell of rotting garbage.