

Welcome!

We are Heritage Gas, the company that is bringing natural gas to people and businesses in six counties of Nova Scotia. Heritage Gas is proud to be part of your community.

Heritage Gas now operates in Dartmouth and we're looking forward to bringing natural gas to Amherst. We have been working hard with the community to serve Amherst and surrounding areas as soon as we can.

We are Heritage Gas, and we're *"Putting our Energy here. Naturally"*

Our plan is to invest \$10 million over five years to bring natural gas access to 2,500 households and businesses in Amherst and surrounding areas. We plan to construct a natural gas pipeline from the Beecham Road north of Amherst Head and Truemanville, crossing Highway 6 in Warren, and ending near the John Black Road. Refer to maps on other panels.

Public Input

Thank you for attending this information session about the Amherst natural gas pipeline. We are looking for community feedback on the project and on the pipeline route before we finalize our plans. Please look over the maps and information on display today. Our staff and environmental consultants are available to provide explanations and answer your questions. Comment forms are available if you would like to leave us with your thoughts.

Thank you for your time!

What's Planned?

Pipeline Systems

The Heritage Gas system includes several types of pipelines:

- High pressure steel pipelines – transfer natural gas from the M&NP pipeline to the service region; located in dedicated right-of-way or easement; operated at 720 pounds of pressure or less
- Elevated pressure steel pipelines – within community streets, “trunk” lines connecting large customers and pressure regulating stations; operated at 275 pounds of pressure or less.
- Polyethylene plastic pipelines – within community streets, operated at 100 pounds of pressure or less, distribute natural gas to residential and small commercial customers.
- Service lines – connect customers to the distribution network through underground service connections and a meter and pressure regulator located above ground on their property.

Above Ground Facilities

Above-ground facilities include pressure regulator stations, valves and gas meters. The Town Border Station (TBS) and District Regulator Stations (DRS) are designed to regulate the pressure of gas delivered to the various types of pipelines.

The figure below illustrates how these system components are linked to distribute natural gas throughout the service region:

Meeting Environmental Requirements

Construction of the natural gas pipeline into Amherst will require various approvals from both the Federal and Provincial governments, as well as working with the Municipalities of the County of Cumberland and the Town of Amherst.

Provincial Environmental Assessment

The Heritage Gas Amherst pipeline project must go through the Nova Scotia Environmental Assessment (EA) process to assess its environmental effects. Heritage Gas believes that the project poses no significant adverse environmental impacts with proper planning, design and construction practices. Heritage Gas is preparing a comprehensive EA document for submission to the Department of Environment and Labour by the end of October.

Federal Environmental Screening

Heritage may be required to obtain environmental approvals from the Federal government if the *Canadian Environmental Assessment Act (CEAA)* is triggered, for example if the pipeline crosses Federal lands.

Other Permits

Numerous other approvals are required for the pipeline project, including:

- Approval to work in a surface watercourse (NS Dept of Environment and Labour)
- Authorization of harmful alteration of fish habitat (Fisheries and Oceans Canada)
- Navigable Waters Protection Act (Canadian Coast Guard)
- Soils Breaking Permits, to cross or run parallel to a public highway or roadway (NS Dept of Transportation and Public Works)
- Municipal approval for the use of Town streets
- Permit to Construct the pipeline from the Nova Scotia Utilities and Review Board (NSUARB), issued prior to construction and following the filing of detailed engineering drawings and specifications
- Licence to Operate the pipeline from the NSUARB, issued prior to introduction of natural gas and after successful completion of final pressure testing.

Environmental Protection

As with any project, construction of the natural gas pipeline has the potential to affect the environment. Heritage Gas is committed to completing all of our projects in a manner that protects the natural and cultural environment. Heritage will develop specific protection measures for these various features:

- Wetlands
- Rare plants/animals and their habitat
- Significant wildlife habitat
- Water supplies
- Archaeological resources
- Built heritage resources

The processes of designing the pipeline helps minimize environmental impacts well in advance of construction.

Initial Screening

In this initial stage, topographic maps and available environmental data are used to identify potential pipeline routes and, as much as possible, avoid existing built-up areas and minimize the number of watercourses, wetlands and other sensitive areas crossed.

Evaluating and Selecting a Route

Field studies are then conducted in areas of potential routes to identify fish habitat, rare plants/animals and archaeological resources. With input from the public, this information is then used to identify the preferred route.

Developing Mitigation Measures

In order to minimize the environmental impacts of construction and operation of the pipeline, Heritage Gas develops standard and site-specific environmental protection plans

Crossing Watercourses

Heritage Gas is committed to protecting our lakes and rivers and will employ the most appropriate methods to route the pipeline across watercourses. The type of crossing used reflects the size of the watercourse, environmental sensitivities, land use, and physical features (such as bedrock and topography). The following crossing techniques will be employed for the pipeline:

Going through a Watercourse

Smaller water bodies may be crossed directly by the pipeline. Usually, this will involve isolating the construction activity from the flow of water for a short time. This is accomplished by constructing a dam and diverting the water through pump or flumes. The time of year when this is permitted is normally restricted to low flow summer months.

Crossing Under a Watercourse

Where conditions warrant, watercourses are crossed without any disturbance to the streambed by using "trenchless" techniques such as directional drilling, to draw the pipe from one stream bank to the other. These methods are used for large or sensitive watercourses, where not restricted by physical conditions, including slopes, distances and soil type.

Locating the Pipeline and Acquiring Easements

The Heritage Gas pipeline will be located in a dedicated cross-country right-of-way.

Easements will be negotiated with landowners to allow the construction, operation, and maintenance of the pipeline. Parcels of land for above-ground facilities are normally purchased outright.

An easement is an agreement registered at the local registry office. Defined rights and responsibilities are assigned to the property and will pass on to any future owners.

Typically, Heritage Gas easements are 20 m wide, with the pipeline located near the centre. Heritage Gas will compensate for the fair market value of the land. The landowner retains the use of the land but requires permission from Heritage Gas to develop on the easement. No buildings or permanent structures can be built on the easement.

Heritage Gas follows these steps for acquiring easements:

- Identifies the lands required and advises affected landowners
- Prepares a property sketch and completes title search and property appraisal
- Serves notice to all interested parties, providing a description of the lands required and of the next steps of the process
- Provides the landowner with an Option which details the proposed compensation and includes a copy of the proposed agreement for review
- By signing the Option, the landowner signifies his or her agreement, and construction is allowed to proceed
- Completes a legal survey, the easement agreement is executed and registered, following which final payment is made to the landowner.

Constructing the Pipeline

Pipeline Construction

- During the construction season, from May to September
- Sensitive watercourses crossed in June, July or August, when the water flow is at its lowest
- Construction continuous and quite rapid -- under ideal conditions as fast as 500 metres a day
- Disturbed area typically does not exceed 1.5 km at any one time
- Specialized equipment such as trenchers and side booms
- Trenches narrow, between 1.0 m and 1.5 m deep

Pipeline construction steps:

- Alignment surveyed, route marked
- Treed areas cleared, right-of-way prepared
- Pipe is laid out along the route (stringing)
- Sections welded into a continuous pipe, welds inspected and tested, and joints coated for protection
- Trench is dug and bottom prepared to receive the pipe
- Pipe lowered into the trench, pipe coating is tested
- Trench backfilled, compacted and ground surface restored
- Special backfilling precautions taken for agricultural lands
- Pipeline pressure tested at one and a half times the maximum operating pressure
- Pipeline cleaned and dried, natural gas introduced and facilities activated

Directional Drilling and Boring

- "Trenchless" methods can be used to minimize environmental impact, avoid disrupting traffic and minimize surface restoration requirements
- Directional drilling used under watercourses or possibly roadways
- Boring normally under major roads and rail tracks
- Crossings normally installed ahead of pipeline construction
 - Pipe pre-assembled on one side of the crossing and equipment areas are prepared
 - Specialized drilling or boring equipment set-up on the opposite side
 - Pilot hole drilled and the pipe is pulled back
 - Crossing pipe later connected to the pipeline at both ends.

Operating the Pipeline

Heritage Gas builds and operates its pipelines. Safety is our highest priority. We have developed Operation and Maintenance Manuals meeting national and provincial standards.

System Control

Pipelines are a 24/7 operation. The facilities will be remotely monitored from a central gas control room with state-of-the-art equipment. System malfunctions are reported immediately with on call staff to react.

Inspection and Monitoring

Heritage Gas staff regularly inspect pipelines and facilities. They patrol the route and are in contact with people living near the pipeline.

Leaks are detected through gas sniffing instruments and by visual indicators. Repairs are undertaken promptly so that the integrity of the pipeline, the safety of the public and the environment are not compromised.

Corrosion Protection

Pipelines are protected against corrosion by a coating and cathodic protection. This system is regularly monitored for performance.

Communications with the Public

Heritage Gas operates a 24/7 public call system. Technicians respond promptly to inquiries. Public awareness sessions and one-on-one meetings with affected landowners provide information on our operations.

“Call Before You Dig” Program

Heritage Gas operates a *Call Before You Dig* (1-800-313-3030) program. Anyone planning to excavate near the gas pipeline must request clearance to dig. Locating the pipeline is a service provided at no charge.

Responding to Emergencies

Natural gas pipelines have a very safe and reliable performance record. As a precaution, Heritage Gas sets up emergency preparedness programs to quickly and efficiently coordinate emergency response with Fire Departments and other first responders. These plans will be reviewed to ensure they are tailored to local conditions.

Development in the Vicinity of the Pipeline

During Construction

In the planning process we maintain a safe distance from residential properties. Clearing is required where the pipeline runs through wooded areas. Individual trees may be removed if the easement extends across fencerows and property lines. Trees removed during the work will be compensated for.

Building a pipeline through agricultural lands involves digging a narrow trench and the use of heavy construction equipment. Depending on the time of year that construction occurs, the current year's crops may be lost within the work area. Heritage Gas will compensate for crop loss until the land returns to full potential. In addition, Heritage Gas is committed to using appropriate construction practices to minimize potential problems. Gas can be delivered to rural areas through a small pressure regulating station.

During Operation

No houses, sheds, garages, swimming pools or other structures are allowed within the easement. Fences can be erected across the easement with permission from Heritage Gas. Deep rooting trees may not be planted within 5 metres of the pipe.

Agricultural, recreational, landscaping, and other activities that pose no safety concerns to the pipeline are permitted. Vehicle access across the pipeline will not be restricted as long as Heritage Gas is consulted beforehand and suitable protection measures are used to protect the pipeline against damage (for example sufficient cover and suitable fill material).

Pipeline easements can affect how parcels of land are developed. Pipeline easements and residential subdivisions are compatible since pipelines are buried and provide an excellent potential for green space, recreation or parkland use.

What Happens Next?

Heritage Gas and the Amherst Gas Committee are working hard to sign-up customers.

At the same time, environmental reviews and engineering design are moving forward. Here are the next 6 steps we will undertake:

- Finalize the pipeline route – October 2004
- Complete and submit the Environmental Assessment – October 2004
- Field surveys and soils investigations -- November 2004
- Prepare base mapping and carry out detailed design – November to December 2004
- Easement acquisition process – January to May 2005
- Materials Procurement – February to May 2005
- Construction tenders – April May 2005
- Centreline Survey and clearing – June 2005
- Construction – June to September 2005
- Commissioning and activation – September 2005

Your comments are welcome to help us finalize the pipeline route. Please call us or visit our website if you have any questions.

Thanks for your attention!