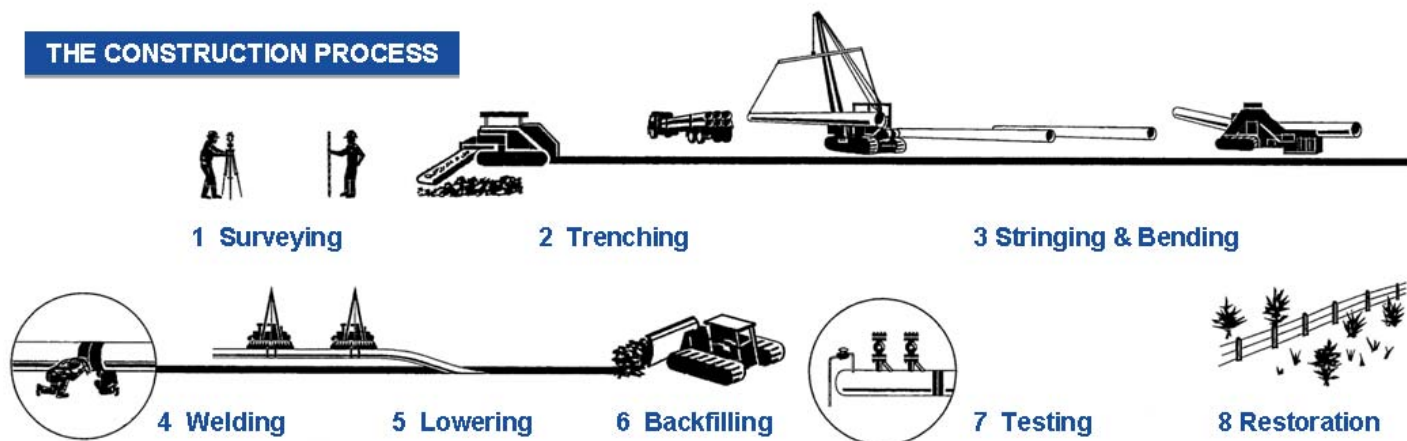




THE CONSTRUCTION PROCESS



Pipeline construction steps

The construction process involves the following general stages however they may vary as a result of the design and construction specifications that are yet to be developed:

- 1. Surveying** Site surveys and studies are undertaken to ensure the pipeline is located and built to match construction techniques and environment and heritage protection measures.
- 2. Trenching** The trench is excavated for the pipe with excavation materials stockpiled for backfill and excess materials to be removed to a clean fill site.
- 3. Stringing and Bending** Pipe that has already been inspected for integrity is laid end to end adjacent to the trench. Where necessary the pipe is bent to conform to land contours.
- 4. Welding** Pipe segments are welded together & the joints are sealed.
- 5. Lowering** The pipe is lowered into the trench in sections by side-boom cranes or excavators.
- 6. Backfilling** The pipe is covered with fine materials that do not damage its protective coating. The trench filled & compacted in layers & the road pavement is constructed to Council specifications.
- 7. Testing** The entire pipeline is pressure tested with water to ensure the integrity of the pipe & the welded joints.
- 8. Restoration** Following construction the grassed road reserve is restored as close as possible to its original condition prior to construction with suitable topsoil & appropriate grass seed.



Geotechnical drilling that will be used to investigate ground conditions for the design

Lilydale Gas Pipeline – Community Newsletter Edition 1 - May 2010



Jemena Asset Management (6) Pty Ltd, Australia's leading provider of infrastructure solutions is the prime contractor for the gas network owned by Multinet Gas.



In the Pipeline

Ensuring Gas Supply Security – outer eastern region

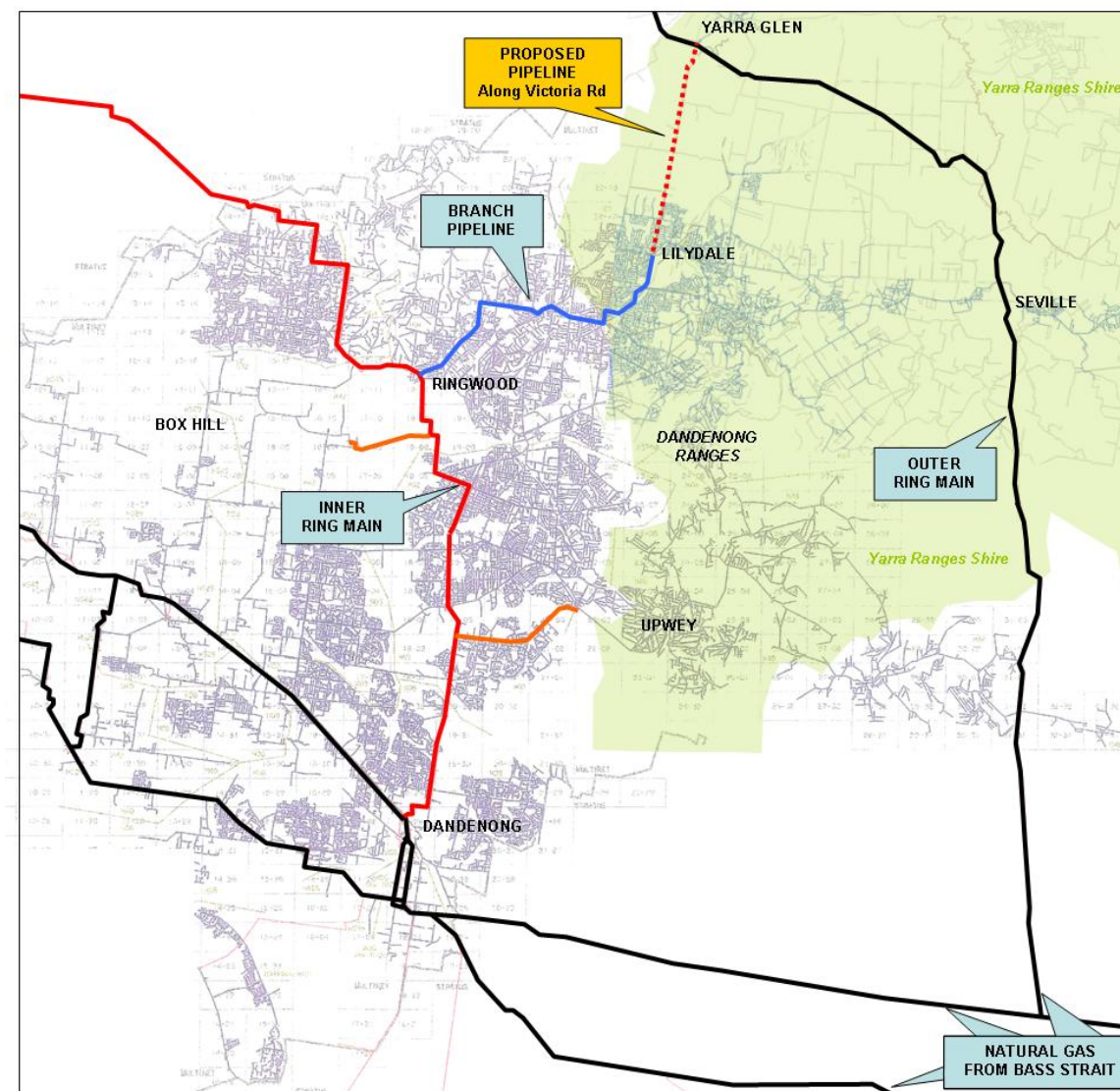
The gas distribution network is constantly monitored to ensure that it has the capacity to supply customer demand for gas especially during winter. **To meet current and rapidly growing demand in the outer east and to reinforce the security of supply to your area it has become necessary to increase the capacity of existing transmission pipelines that transport natural gas to the region.**

Multinet Gas has contracted Jemena Asset Management to undertake the design, construction, operation and maintenance of a new transmission link approximately 10 km in length along Victoria Road connecting the Lilydale Branch Pipeline to the Outer Ring Main in Yarra Glen (see map).

“Because hot water and heating are so critical in the middle of winter it is essential to increase the volume of gas available to the distribution network that supplies our customers,” said Mike Fajdiga, Chief Operating Officer of Multinet Gas.

Multinet Gas is a natural gas distributor with a network servicing the densely populated inner and outer eastern and south-eastern suburbs of Melbourne. The network includes approximately 9,800 kilometres of pipelines over an area of 1,700 square kilometres supplying approximately 660,000 domestic and business customers. In the outer eastern region its distribution network extends to Lilydale, Yarra Glen, Millgrove and to locations across the Dandenong Ranges.

It is proposed that construction would be between January and June 2011 and will be managed to minimise impact on community, the local environment and roads.



Design process

The project includes route selection, survey, cultural heritage and environmental plans, design, procurement, construction and commissioning. The Pipeline will require its own Pipeline Licence and Government approvals.

In preparation for the design, survey works are due to commence along Victoria Rd at the beginning of May 2010. At the same time Jemena's Stakeholder Manager will commence discussions with Landowners and provide notification for the survey where necessary. While the surveyors are at work, geotechnical investigations to determine soil conditions will take place along the proposed route.

In Australia pipelines of this type are required to meet stringent safety standards. The Project will comply with the requirements of the Pipelines Act 2005, its Regulations, Codes and Standards, and Australian Standard AS2885.

Jemena's Project manager, Jonathan Spink explains, "Safety aspects addressed in the Australian Standard include design, construction, operation and maintenance. Particular attention is given to wall thickness, fracture factor toughness, depth of cover, marking indicators and signs."

Community Consultation

Consultation will begin with a local awareness program, including letter drops and visits to Landowners and Community groups that may be affected along the pipeline route.

A display at a major local shopping centre will be held to provide information and receive feedback from members of the Community.

Community consultation is an essential part of the project consisting of a two-way discussion process that encourages a communications flow between Multinet (the owner), Jemena (the construction and maintenance contractor), Yarra Ranges Council, other affected Stakeholders and the Community in general.

Jonathan outlined, "It is important that members of the Community are informed about the project and have the opportunity to ask questions and make comments."

Information gleaned from discussions with the Community will ensure that any issues or concerns are taken into account in the design of the pipeline.

Stakeholder Manager
Martin Wettenhall
Tel: 0419 761 849

Community Relations
Rob Magennis
Tel: 8551 7116



Welding pipe in the suburbs of Sydney



Lowering pipe into the trench



Commencing road pavement reconstruction

Proposed pipeline route

Wherever possible it is proposed that the 30cm diameter pipeline be installed within the Victoria Rd road reserve at a depth of 1.0 to 1.2 metres. The exact route cannot be determined until the survey, geotechnical investigation, and environmental, cultural heritage and safety plans have been input into the design.

Connecting to the existing Ringwood-Lilydale Branch Pipeline, the southern end of the proposed pipeline route starts at the intersection of Maroondah Hwy and Victoria Road in the urban residential area, travelling northward up Victoria Road for approximately 2.85 km.

North of Switchback Road the land traversed is primarily rural residential with some minor cropping, small vineyards and other agricultural uses. At the end of Victoria Road the route crosses under Spadoni's Reserve and the Yarra River. North of the Yarra River the land is rural residential along Glenview Road until the end of the proposed pipeline connects into the Pakenham-Wollert pipeline near the intersection of Glenview and Yarraview Roads.

