Constructing a pipeline

Stage 2 is critical infrastructure needed to help secure water supply for SEQ.

Fact Sheet

South East Queensland (SEQ) is one of the fastest growing regions in Australia with our population set to increase significantly in the next 20 years. A secure water supply is essential.

The Northern Pipeline Interconnector (NPI) Stage 2 is critical infrastructure needed to help secure water supply for South East Queensland. It involves the construction of about 48 km of underground pipeline from the Noosa Water Treatment Plant (WTP) to NPI Stage 1 near the Landers Shute WTP at Eudlo.

The Northern Network Alliance (NNA) has been engaged to plan, design and construct the NPI Stage 2. The NNA consists of LinkWater Projects, McConnell Dowell, Abigroup and KBR.

Building a pipeline is a major construction project. We are committed to working with landowners to minimise impact from the project wherever possible.

Generally, the following process is followed to construct a pipeline:

Survey

Before construction starts, teams clearly mark out the construction area, existing infrastructure and areas of environmental or cultural heritage significance.

Using a Global Position System (GPS), surveyors mark the outer limits of the construction area, also known as the Right of Way (RoW). The location of existing services, such as fibre optic cables and water mains, are also marked using information gathered from surveys and existing sources such as Dial Before You Dig.

Environmental and cultural heritage monitors identify and report on areas within the construction area that need special attention.

Fencing

Existing fences and gates may be temporarily relocated or replaced so that construction can start. Temporary fencing and gates used will be similar to, if not better than, existing ones.

At all times, the project team will liaise closely with landowners to minimise any inconvenience and ensure the safety of people and livestock.

Preparing the RoW

Before preparing the RoW, licensed fauna spotters will check the area for any native animals. Animals found are safely relocated to nearby habitats.

Large machinery such as graders and bulldozers fitted with rakes are used to remove vegetation along the RoW. Topsoil and vegetation are removed and stored separately ready to be re-established after pipeline construction is completed.

Fact Sheet

Pipe stringing

The pipe is transported to the construction site on trucks. The pipe is then laid out end to end adjacent to the trench, ready to be installed. To protect the coating on the pipe, each one is held off the ground using bags filled with sawdust or sand.

Backfill material stockpiling

Sand or aggregate used as backfill and bedding for the pipeline is stockpiled along the RoW so it is ready to use during construction.

Pipelaying

For areas where the pipe is installed with the open trench method, excavators are used to create a trench. Excavators with rock breakers may be used in rockier sections of the route.

Excavators are also used to lower pipes into the trench. Once in the trench, the pipes are joined together by a rubber ring joint or welding.

Backfilling

Sand or aggregate is placed around the pipe and compacted, filling the majority of the trench. Soil originally removed from the trench is used to fill the remainder of the trench. The trench is then compacted to Australian Standards.

Installing valves

Where air or drain-down valves are required, minor excavated areas will be left open to allow valves to be installed by separate crews once the pipe has been installed. Once the valve is installed, the excavated area is backfilled.

Pressure testing

Once the pipe is installed, the pipeline is tested in sections to locate leaks ensuring the pipeline can operate at its designed pressure levels.

Reinstatement and revegetation

Once pressure testing is successfully completed, the construction area is reinstated. This includes respreading the topsoil and seed stock, contouring the land, installing erosion controls and re-vegetating. This work will be monitored for at least 12 months after completion of the pipeline to ensure reinstatement has been successful.

To allow future access during operation, secure gates will be installed in existing fences where necessary.

Construction maintenance crews

Small work crews will be used to fix minor faults throughout construction. While this work is expected to be isolated and short in duration, it could involve re-excavating areas after the main construction teams have left the area.

If you'd like to find out more about the project or receive regular updates, please contact the Northern Network Alliance.

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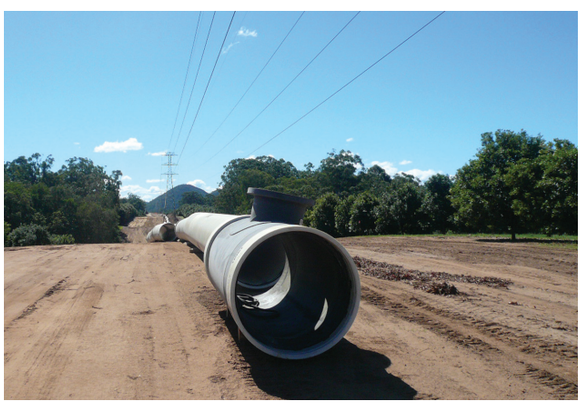

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CONSUMER

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