

# Essential facilities

South East Queensland (SEQ) is one of the fastest growing regions in Australia, with the population set to increase significantly in the next 25 years. A secure water supply is essential.

The Northern Pipeline Interconnector (NPI) – Stage 2 is a vital piece of infrastructure designed to help secure the water supply for the Sunshine Coast region. It involves construction of an underground, reverse-flow pipeline from the Noosa Water Treatment Plant (WTP) to NPI – Stage 1 at Eudlo.

The Northern Network Alliance (NNA) has been engaged by LinkWater Projects, a government owned company, to design and construct NPI – Stage 2. The NNA consists of LinkWater Projects, McConnell Dowell, Abigroup and KBR.

## Essential facilities

Essential facilities must be built along the pipeline corridor to ensure the pipeline operates as it should. The location of these facilities depends on the topography of the land, maintenance considerations and where they're needed along the length of the pipeline. The exact location of any facilities on your property will be discussed with you in detail.

## Pigging facilities

A pigging facility consists of a below ground pigging pit which is typically 10 m x 10 m in size and is located on the mainline pipeline at roughly 15 kilometre intervals. Pigging facilities are built to allow the launch and retrieval of a foam 'pig' which helps to clean the pipeline and maintain water quality and hydraulic performance. Cranes may be used from time to time to lift the pigging facility cover during pigging operations.



Pigging Facility

## Section valves

Section valves isolate sections of the pipeline during scheduled maintenance activities or emergency events. Section valves are located at intervals of approximately five kilometres and are buried with the pipeline.

Some of these valves will have above-ground components which allow them to be turned on and off electronically, while others will be operated mechanically.

## Drain down valves

Drain down valves are installed at low sections of the pipeline to allow sections of the pipe to be emptied of water during scheduled maintenance activities or emergency events. Should water need to be released from a drain down valve, the water flow will be managed with strict environmental controls and monitoring.

Drain down valves are typically spaced every few hundred metres to allow for maximum pipeline operating efficiency and have a concrete slab approximately 1m x 1m on the surface.



Drain down valve

## Air valves

Air valves are installed at high points of the pipeline to allow air to enter or exit the pipeline. In normal operation, the pipeline is full and the air valves are not required to operate.

Depending on topography, air valves are typically spaced every few hundred metres to allow for maximum pipeline operating efficiency. Each has a small vent pipe showing at the surface level and a concrete slab approximately 2 m x 2 m on the surface.



## Operations and maintenance

Once the pipeline is constructed, it will require ongoing operation and maintenance. The following is a guide to the maintenance schedule required for different facilities:

Facility	Equipment	Timing
Pigging facilities	Light to medium vehicles	Every 6 months
	Large equipment (eg cranes)	Every 5 years
Section valves	Light to medium vehicles	Every 3 to 12 months
Scour valves/ air valves	Light to medium vehicles	Every 3 to 12 months

Landowners will be notified in advance when property access is required for maintenance. Ongoing access to properties will be discussed with landowners to determine a mutually agreeable outcome wherever possible.