

Water Supply Project Eastern and Midlands Region

Infrastructure Sites – Break Pressure Tank *Knockanacree, near Cloughjordan, County Tipperary*

Overview

The Break Pressure Tank (BPT) provides the transition point from a pumped flow to a gravity flow within the pipeline. To maximise the use of gravity, the BPT will be located at the highest point along the proposed pipeline, in the townland of Knockanacree, near Cloughjordan, in County Tipperary. The water will be pumped from the Water Treatment Plant (WTP) uphill to the BPT. From the BPT, the water will flow by gravity to the Termination Point Reservoir (TPR). In periods of higher demand the gravity flow will be supplemented by pumping from the Booster Pumping Station.



BREAK PRESSURE TANK (BPT)
Cloughjordan,
County Tipperary



What does the Break Pressure Tank do?

The BPT will have two functions during operation:

- 1 It will provide a way to stabilise the water pressure in the pipeline and ensure that it remains full at all times.
- 2 It will act as a large damping device to bring the water in the pipeline to a controlled, gradual standstill in the event of a temporary shutdown of supply.

The site will not be permanently staffed and operatives will only need to attend site intermittently for routine maintenance and inspections.

Architectural Visualisation of the Control Building





What does the Break Pressure Tank site include?

The BPT and the Control Building are the main components of the site but there will also be an access road, perimeter fencing, site drainage and buried pipes. The BPT will comprise three compartments, each approximately 48m in length and 23m wide. The compartments will be rectangular and made of reinforced concrete. They will be partially buried

below ground and covered with earth. Once built they will appear as a grassed embankment.

Each of the three compartments provides a capacity of approximately 4.6 Megalitres (ML), providing a total capacity of approximately 13.8ML. Two of the compartments will operate continuously to manage water volumes in the pipe. The third chamber will not normally hold water and will act as an overflow if more storage is needed.

The Control Building will contain the instrumentation and facilities needed to operate the site. The building will be approximately 7m high, 40m long and 20m wide. It has been designed to look similar to an agricultural barn.

The permanent land take for the proposed site is approximately 6.8 hectares, including the access road. This will include habitat creation to help deliver ecological outcomes on the project.



How will the Break Pressure Tank be built?

Construction will last approximately 4 years and 10 months between site establishment and demobilisation. The site will also serve as a construction compound during this time.

The proposed construction sequence includes:

- Site preparation works.
- Topsoil stripping.
- Earthworks to achieve required ground levels.
- Construction of the BPT and installation of below ground pipework.
- Backfill around BPT to finished formation level.
- Installation of the power supply.
- Construction of the Control Building.
- Site reinstatement, landscaping and boundary treatment.

The extent of the total area of land required temporarily during construction will be approximately 7.2 hectares.

KEY FACTS

