

GALSTON AND GLENORIE RETIC WASTEWATER SCHEME

OIL/GAS | SEWER | STORMWATER | POWER | WATER | TELCO

LOCATION	Glenorie and Galston NSW	GEOLOGY	Clay, shale and sandstone
PRODUCT	Pressure sewer	LENGTH	11,350 metres
PIPE	DN40 – DN125	TECHNIQUE	HDD

PROJECT OVERVIEW

UEA Trenchless successfully completed the installation of approximately 11.5 kilometres of PE Reticulation pipework by HDD for the Glenorie Galston Pressure Sewer Project.

Glenorie and Galston are two un-sewered urban villages, approximately 35 kilometres northwest of Sydney, that have been chosen to receive improved wastewater services as part of the Priority Sewerage Program (PSP) set by the NSW Government. The wastewater service is a pressure sewerage system and will service about 380 properties in Galston and 240 properties in Glenorie.

The Glenorie Subsidised Service Area (SSA) Pressure Sewer System (PSS) reticulation receives pumped flows from the properties within the SSA and transfers them to a pump station on Whites Road. The work included installation by HDD of 5,175 metres of pressure reticulation sewers, ranging in size from OD50 to OD110, to service all properties within the Glenorie SSA. The Galston Subsidised Service Area (SSA) Pressure Sewer System (PSS) reticulation receives pumped flows from the properties within the SSA and transfers them to a new pump station on Mid Dural Road near the fire station.

SCOPE OF WORKS

The work included installation by HDD of approximately 6,175 metres of pressure reticulation sewers, ranging in size from OD50 to OD125, to service all properties within the Galston SSA. Extensive service locating and vacuum excavation in advance ensured minimum disruption, with the HDD rigs constantly drilling from one site to the next without having to prepare at the start of each run. This pre-work also enabled the ability to redesign if required before crews moved into each area, minimising the risk of damaging existing services; only one water service was damaged over the entire project.

CHALLENGES

The challenges faced with this project were:

- Changing ground conditions. Within Glenorie, of the 5,175 metres drilled, 3,302 metres were in sandstone and of the 6,175 metres drilled in Galston, 2,186 metres were in sandstone.
- Aquifers throughout entire region. When a bore drills through an aquifer, water constantly flows out of the bore hole which creates additional disposable fluids. It also makes restoration difficult as a weak spot is created which becomes water logged.
- Limited timeframe. This meant that multiple crews performing different tasks on the project had to work in close proximity.