

LOWER SOUTH CREEK EFFLUENT PIPELINE VALVE UPGRADE

CLIENT: SYDNEY WATER

LOCATION: ST MARYS & QUAKERS HILL

DURATION: 4 MONTHS

VALUE OF ENGAGEMENT: \$4 MILLION

Ferrycarrig has recently completed works at both St Mary's and Quakers Hill Water Recycling Plants. Due to a successful and collaborative approach, our Client Sydney Water has also engaged our services on the Lower South Creek Effluent Pipeline Valve Upgrade that links both plants.

The works include the following:

- Decommissioning of 6 no existing air valves
- Installation of 18 no new auto air valves
- Supply and installation of 4 new manual air valves
- Replacement of 2 existing air valves with auto air valves
- Replacement of 29 existing air valves with manual air valves, including supply of manual air valve
- Construction of 19 odour control slabs
- Installation of carbon canisters and conveyor belts
- Installation of 19 stainless steel enclosure
- Construction of vent shaft footing including supply and installation of rag bolts
- Installation of 20 12m high vent shafts
- Regrading of 5 sections of existing pipeline
- Pressure testing

Key challenges associated with the delivery of the works included:

- Short program to complete all works within an 8-week shutdown window.
- Detailed staging of works especially for road crossings and working in close proximity to residential areas.
- Working in the proximity of environmentally sensitive areas such as parklands and creeks
- Pressure testing valve and pipe installations
- Inaccurate Work-As-Executed Plans

Ferrycarrig overcame the key challenges by utilising in-house resources, both people and plant, to ensure the ambitious program could be achieved. Our experienced project management teams extensively planned and executed the works so that all stakeholders can be confident that we will deliver.

Preparing relevant methodologies and keeping all stakeholders informed on the works being carried out was key for works undertaken in Western Sydney Parklands to ensure that all environmental controls were followed and that disruption to this busy parkland was kept to a minimum.

Working from inaccurate WAE drawings caused several delays in the project but Ferrycarrig was able to provide solutions to the changes in design to enable works on the project to continue.

The greatest challenge of the project was the testing of the pipework installed by Ferrycarrig. This was designed in conjunction with Sydney Water's commissioning team and a final methodology was approved

This methodology also allowed us to test the remainder of the existing effluent line to ensure it is fit for purpose. Ferrycarrig will work alongside Sydney Water to locate and determine any existing leaks in the pipeline.

