

Wilton Integrated Servicing Program

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

PROJECT OVERVIEW

UEA was engaged by several civil contractors across late 2025 and 2026 to deliver multiple HDD packages of work for the Wilton Integrated Servicing Program (WISP). Sydney Water's WISP project will deliver new drinking water, recycled water and wastewater infrastructure to support planned growth in the Wilton area, including infrastructure for up to 15,000 homes by 2047. The program is intended to provide a reliable water supply while reducing environmental impacts, particularly around koala habitat and threatened vegetation communities.



LOCATION

Wilton NSW



CLIENT

Athassel Civil, Vaughan Infrastructure, Acciona, Sydney Water



PIPE

1x 800mm PN25, 5x 800mm PN20, 3x 560mm PN20 & 3x 250mm PN20 PE112



GEOLOGY

Sandstone & shale



LENGTH

1x 1100 metres, 3x 650 metres, 4x 360 metres & 4x 300 metres



MARKET

Utilities

CONSTRUCTION TECHNIQUE

UEA was engaged to complete the below packages of works:

Athassel Civil – Wilton Package 5A

Engaged by Athassel Civil, UEA was contracted to complete HDD design, HDD support calculations, drilling, pipe welding and pipe testing for eight underbores across two locations. At each location, UEA installed two 800 mm PN20, one 560 mm PN20 and one 250 mm PN20 HDPE pipeline, running parallel and with approximately one metre of separation between the final reamed bore diameters.



UEA mobilised to the first site on the eastern side of Picton Road in November 2026. A HK250C drill rig and V600 mud pump were utilised to drill the four Picton Road Crossings within a narrow easement underneath Picton Road. UEA's D300 and new electric mud pump were mobilised to the second site in December 2025 and drilled the four parallel bores within private property and adjacent to the NSW National Park's boundary.

Vaughan Infrastructure – Wilton Package 5B

Engaged by Vaughan Infrastructure, UEA designed, drilled and installed 650 metres of 250mm, 560mm and 800mm PN20 HDPE pipelines. UEA also completed the design package on the small rig package of works for the two crossings passing underneath Picton Road and two crossings passing underneath Pembroke Street.

Challenging site constraints required the HDD bores to be designed with just 1 metre of horizontal separation, adding complexity to the construction of this critical drinking water and recycled water infrastructure. A combination of Gyro, Beacon and Paratrack 2 guidance systems were utilised to steer the bores in accordance with the design.

Vaughan Infrastructure – Wilton Package 8

UEA was engaged under a separate contract by Vaughan Infrastructure for the Wilton Package 8 scope of works that contracted UEA to complete the design package, drilling works, pipe welding and pipe testing for the 1100m 800mm PN25 pipe HDD passing from the corner of Wilton Road and MacArthur Drive to 281 Wilton Road.

CHALLENGES

Due to the narrow easement across the projects containing multiple pipes, the bores were designed with close proximity to one another. UEA adjusted the bore profiles and entry and exit angles to introduce additional vertical separation. This reduced the risk of drilling fluid migrating into an adjacent bore and maintained suitable clearance between the final reamed bore diameters.

Additionally, challenging ground conditions were encountered on the 5B and 8 package of works that resulted in unprecedented tooling wear on UEA's reamers and drill rods. In particular, highly abrasive sandstone was encountered on the package 8 works that required UEA to ensure a range of tooling and back up tooling was available on site to minimise any down time due to tooling damage.

COMPLETION

The use of HDD allowed the pipelines to be installed beneath Picton Road, private property and Wilton Road without requiring a continuous open trench along each alignment. By limiting surface excavation to defined work areas at the bore entry and exit locations, the methodology reduced the extent of surface disturbance, vegetation clearing, spoil generation and reinstatement that may otherwise have been required.

UEA's scope of works across the various packages was successfully delivered by August 2026, with all quality assurance activities signed off and accepted.