



Umina Beach Ocean Outfalls

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

PROJECT OVERVIEW

In May 2026 UEA was awarded a significant HDD project to install two conduits for Telstra's telecommunication subsea cables. HDD technology was utilised for the seamless installation of the new cables, launching from the Umina Beach Surf Life Saving carpark.



LOCATION

Umina Beach, NSW



CLIENT

Ventia, Telstra



PIPE

100mm ID steel conduit



GEOLOGY

Sand



LENGTH

2x 450 metres



MARKET

Ocean outfall

CONSTRUCTION TECHNIQUE

Before commencing HDD works, UEA needed to identify the two existing Telstra subsea cables due to them being within close proximity to the proposed route for the new conduits. Following on from the service locates on land and at sea, the design and cable route was adjusted to allow for sufficient clearance.

Both pilots were drilled with a 9 7/8" jetting assembly, and 27 metres of 355mm OD steel casing was installed on both HDDs to prevent a loss of drilling fluid due to the limited depth of cover and soft formation. Highside Drilling were engaged as the steering subcontractor and a combination of Partrack 2, Beacon and Gyro were utilised to track the bores to ensure both pilots were steered in accordance with the design. Due to the quick nature of drilling sand, the 450 metre pilot bores were each punched out on the sea floor within two shifts.

Following the completion of each pilot bore, UEA engaged a specialised diving subcontractor. Working in conjunction with the drill crew, the divers were first required to cut and recover the HDD tooling. Following completion of the BHA recovery, the diving crew assembled the custom-made completion piece fabricated by UEA. UEA's D330 drill was utilised to pull the completion piece into the desired location for the cable haulers, with a thorough quality report conducted on the sea floor for the client.



CHALLENGES

Due to the intricacy of the diving operations and manual hands-on work at sea, working in a calm sea state was critical to the safe and successful execution of the works. Careful planning was undertaken to ensure diving works were conducted in optimal conditions.

Working within a sensitive marine environment required the crew to be extra vigilant when drilling to minimise any risk of drilling fluid loss. As a part of this, UEA's experienced drilling fluid engineers employed specialised products that presented little to no harm if lost to the marine environment. Another mitigation strategy implemented to prevent fluid loss was the installation of 355mm OD steel casing in the entry portions of the bore to protect the boreholes whilst drilling through the softer formation and initial shallow sections of the bores.

COMPLETION

The replacement of the two submarine cables was executed in accordance with Ventia and Telstra's project specification. Additionally, the site was handed over to the client ahead of schedule and with zero incidents.