



Byford DN630 Distribution Main – Mitchell Street to George Street

Client:
Water Corporation

Location:
Byford WA

Construction Period:
Aug 15 – Nov 15

Project overview

Water Corporation identified that the available water pressure in the pipe network was no longer adequate to supply the rapidly expanding town of Byford and surrounds. To meet this growing demand, a design was implemented to upgrade the area to the South of Thomas Road which required the construction of a DN630 water main from the supply point at Mitchell Street valve complex.

A contract was let to DM Civil to install 4,950 metres of DN630 PN16 PE100 water main from Mitchell Street to George Street. A condition of contract was to complete the works by November in line with a direction from minister to ensure adequate supply for peak demand over the Christmas period. To meet this timeline, DM Civil committed to 3 pipelaying crews supported by 2 PE welding crews.

The project required 2 horizontal bores across existing South West Highway and Thomas Road and a 76 metre long directional drill under Wungong Brook. DM Civil offered a further section of trenchless work, which was accepted by Water Corporation, to directionally drill in the verge of Thomas Road.

DM Civil has extensive experience in, and is a leading installer of pipelines for Water Corporation including all sizes of HDPE.

Significant achievements and benefits

The use of the trenchless technology division to install the pipework under Thomas Road allowed personnel to work in a safer environment away from the high daily traffic volumes on South West Highway and Thomas Road. This also applied to pedestrians, cyclists and all other road users and reduced traffic management requirements.



Buried existing services and overhead powerlines, stretching over 4 kilometres were a significant production issue. The project team spent an appropriate length of time carefully locating, marking, pot holing and recording these service positions to ensure that delays to the programme were minimised and more importantly, that excavation crews could work safely. This service protection was a significant factor along the high voltage electrical aerial lines where catenary flagging and spotters were required between South West Highway and Butcher Road.

The challenging aspects of the project were magnified by a contract let in the winter months. Constructing pipelines in the wet season is problematic in clay soils with boggy access for excavators and loaders, slippery surfaces and the spreading of mud material from the site to the surrounding access roads. To mitigate the effect of these boggy conditions, a tracked 5 tonne tipper was purchased to cart sand and metal bedding and a pole trailer purchased and modified to haul 20 metre pipes.

The project was restricted to 3 months which required 3 crews installing pipework, building concrete structures and installing horizontal bores. Over 13,718 man hours were worked without a single minor incident, medical treatment injury or lost time injury. These safety statistics demonstrate to Water Corporation that DM Civil has a robust HSE system in place and that a safety culture is shared across the company.

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The completion of the pipeline construction in difficult conditions during the winter months ensured that Water Corporation was able to deliver a critical asset to the rapidly expanding Byford residential area.

**Contact DM Civil to discuss
your pipeline projects.**

GUARANTEED PERFORMANCE

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