

Interflow[®]

Rutherford Water Main Renewal



\$595k 

project value

Hunter Water 

customer

NSW 

Rutherford

2023 

year completed

560m 

of pipeline

Providing effective
and affordable
trenchless
solutions

The project

The Rutherford water main project renewed 560m of pipeline which was previously showing serious signs of wear and decay. Faced with the challenge of limited access to pipe alignment, Interflow used its Titeflow solution to successfully renew the pipeline and created a new single pull distance record of 560m.

This project involved a DN500 pipeline running under a built-up, well-established industrial commercial area with a high traffic flow in Rutherford NSW, near Newcastle.

Following several failures, resulting in disruption to local businesses and interruption to bulk water supply, the water main was isolated, reducing the network capacity. To maintain redundancy to the bulk supply network and meet seasonal peak demand, the water main needed to return to service.

Because of the pipe's location, very little of the alignment, which ran under commercial properties, could be accessed directly. This meant a dig and relay or any option that required multiple access points wasn't viable and would cause considerable disruption.

Trenchless technologies were considered to maximise the residual value in the in the CI/CL water main. Hunter Water approached Interflow to ascertain whether Titeflow was an acceptable technology at this length.

Titeflow is Interflow's die-reduction close-fit lining system with a brand new HDPE water pipe.

The site conditions proved to be ideal, and Titeflow was given the green light. Using this trenchless method, Interflow provided Hunter Water with a fully rehabilitated water main with minimal community disruption.

At 560m, this was the longest single installation of Titeflow that Interflow has ever installed, nudging out the previous record of 550m in 2014.





The challenge

The existing water main and easement transects the industrial parcels. Replacing the water main by trenching in the existing alignment would have resulted in the closure of several businesses during the construction period.

To avoid interrupting business operations, the entire length needed to be rehabilitated in one pull. The total length of Titeflow that can be installed is usually limited by the space available to string the pipe out. The longer the length, the greater the potential to disrupt the community or to simply run out of space to store the pipe.

The solution

Titeflow was chosen because it could be installed from end to end without any need to access the alignment along the way.

There was ample space to 'string out' the new HDPE pipe adjacent to a nearby creek prior to installation into the host pipeline. The location also meant disruption was minimal.

By observing the site-specific parameters, Titeflow became the most cost-effective solution over other trenchless rehabilitation alternatives and resulted in an acceptable internal diameter capable of delivering the required capacity.

The success of this project proves that long lengths of new pipe can be installed with minimal community disruption.

The Rutherford water main renewal demonstrates that, under the right conditions, Titeflow is an effective and affordable rehabilitation solution for long lengths of pipe.

Using trenchless rehabilitation technologies on longer lengths of water main can reduce the social, environmental and economic impacts of pipeline rehabilitation.



Winner



Finalist



How we help

Our 4 Waters



Water



Stormwater



Wastewater



Culverts

Interflow[®]

Creating the Future of Water

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