

Northern Interceptor wastewater pipeline construction

Improving the wastewater network in West Auckland and North Shore

Background information

As the north-west of Auckland expands, so does the amount of wastewater we collect and treat. Currently wastewater from Massey North, Whenuapai, Hobsonville, Kumeu, Huapai and Riverhead flows to the Māngere Wastewater Treatment Plant. The Northern Interceptor is a new wastewater pipe being built in stages that will redirect this flow to the Rosedale Wastewater Treatment Plant. The first stage of the pipe will be built between the Hobsonville Wastewater Pump Station and the Rosedale Wastewater Treatment Plant. We have the ability to further extend the network to meet future demands when required.

What's happening here and what are the benefits to Auckland?

- The new pipeline will free up capacity at the Māngere Wastewater Treatment Plant to cater for future growth
- The Rosedale Wastewater Treatment Plant has the capacity to manage the anticipated growth in the northern area.

Selected method of construction

Horizontal directional drilling (HDD) is a trenchless construction method for the installation of underground pipelines. This method is controlled from the surface and the tunnel follows a predefined route.

How does HDD work?

From an entry point at one side of the crossing, a steerable drill is pushed through the ground to the exit point at the other side of the crossing. The pilot bore is then enlarged through a series of reaming passes until the desired diameter is reached. These processes use a bentonite based drilling fluid to assist with the drilling of the borehole, lubrication of the equipment and return the cuttings (excavated material) to the surface for disposal. The drilling fluid is recycled during operations and disposed of after the pipe installation. In the final step, pre-prepared pipe product strings are pulled into the bentonite filled borehole to a final position in the ground.

These pipe strings are made by welding smaller lengths of pipe together to make up the length of the crossing. The welding and storage of these pipes will take place on the Causeway and to a lesser extent in the Rahui Reserve area. Boreholes are also being drilled. The pulling of the product pipe will take place at Rahui Road Reserve.



Site set up for the start of the horizontal directional drilling (HDD) at the Causeway.

(continued overleaf)

When will this take place?

Drilling will commence in October with completion by March 2020

- Three separate pipelines are being installed:
One 200 millimetre diameter line for circulation of drilling fluid during construction and for fibre cables post construction.
Two 500 millimetre diameter wastewater pipelines.
- Over the construction period there will be increased truck movements to and from both the entry and exit points.
These being the Causeway and Rahui Road in Greenhithe.
- It is a mostly continuous process with extended hours of operation required during the pulling of the product pipes.



Any questions regarding the project?

Regular updates can be found by visiting:



<https://www.watercare.co.nz/About-us/Projects-around-Auckland>



Alternatively, you can call our customer centre on 09 442 2222.