



11 August 2025

Thornleigh Pipeline Duplication – Start of Tunnelling and 24/7 works

Greater Sydney's population is forecast to reach 8 million people over the next 40 years. We are investing now to transform and integrate our water, wastewater, stormwater, and recycled water systems to ensure we can continue to provide safe, reliable and affordable services to customers as the region continues to grow.

One of the ways we are doing this is by duplicating the 1.4 km drinking water pipeline between Thornleigh Reservoir (on Quarter Sessions Road) and the Thornleigh-Wahroonga Water Pumping Station (on Dale Close). This will increase the resilience of the local water supply and cater for the growing population.

The pipeline will start at Thornleigh Reservoir in the south-east corner of the site and extend around 1.2 km to the south side of Zig-Zag Creek at Thornleigh-Wahroonga Water Pumping Station.

What's happened so far

During June and July we continued work at Thornleigh Reservoir and the Thornleigh-Wahroonga Water Pumping Station. We have now excavated to the bottom of our pit at Thornleigh Reservoir and are ready to commence tunnelling. Components of the tunnelling setup have been installed and our small Tunnel Boring Machine (TBM) named Jane Starkey is now on site with final testing underway.

What you need to know

From **18 August**, the tunnelling and related construction activities at Thornleigh Reservoir will occur **24 hours a day, 7 days a week** for about **5 months**, until tunnelling is completed. This will allow us to significantly reduce the duration of tunnelling.

Tunnelling work will include:

- excavating rock using the TBM and installing a carrier pipe to support the tunnel
- construction activities at Thornleigh Reservoir to support tunnelling
- removing excavated material from our tunnelling compounds by truck
- delivering concrete pipes by truck.

We will also continue to work at the pumping station as we continue pit excavation.

What you might notice

The TBM will move an average rate of 12 metres per day and is only expected to be under any one particular property for about one to two days. However, some ground borne noise might be heard as the machine moves towards and away from your property. The noise is not constant. During tunnelling there are quieter periods; for example, as new pipe sections are inserted and when the machine is turned off for maintenance.

Depending on your property's location relative to the tunnel, you may hear ground borne noise for up to 10 days subject to progress and ground conditions. Ground borne noise will be loudest when the machine is within 25 metres.

Generally, we find that noise will build slowly as the machine approaches a location and tapers off quickly once it passes that location. This is because the majority of the noise from the machine is projected forward from the rock cutting face similar to how a sound speaker is noisier in front of it than behind it.

We will provide regular updates on the tunnelling work and overall work progress to the community.

We will make every effort to minimise the impact of these works on the community including:

- erecting 4m noise barriers around the site where tunnelling is based
- monitoring noise and vibration
- using quieter equipment where possible and turning off equipment when not in use
- delivering pipe sections and removing excavated material during standard hours
- using water carts and covering loads and stockpiles to suppress dust.

About Jane Starkey



We are thrilled to introduce Jane Starkey, the TBM we will use on our project. Named in honour of Jane Starkey, a former nurse who was instrumental in the formation of what is now the NSW Ambulance and established the first hospital in Thornleigh in the early 1920's. This 2.4m diameter TBM is engineered to handle intricate tunnelling tasks with ease. She is compact yet robust and equipped with a 315kW electric engine, roughly equivalent to a Porsche 911 and more than most double decker buses.

Jane Starkey is both laser guided and remote controlled with the TBM pilot able to make fine adjustments from a cabin at the surface.

TBM's are traditionally named after women in honour of Saint Barbara, the patron saint of tunnelling and mining.

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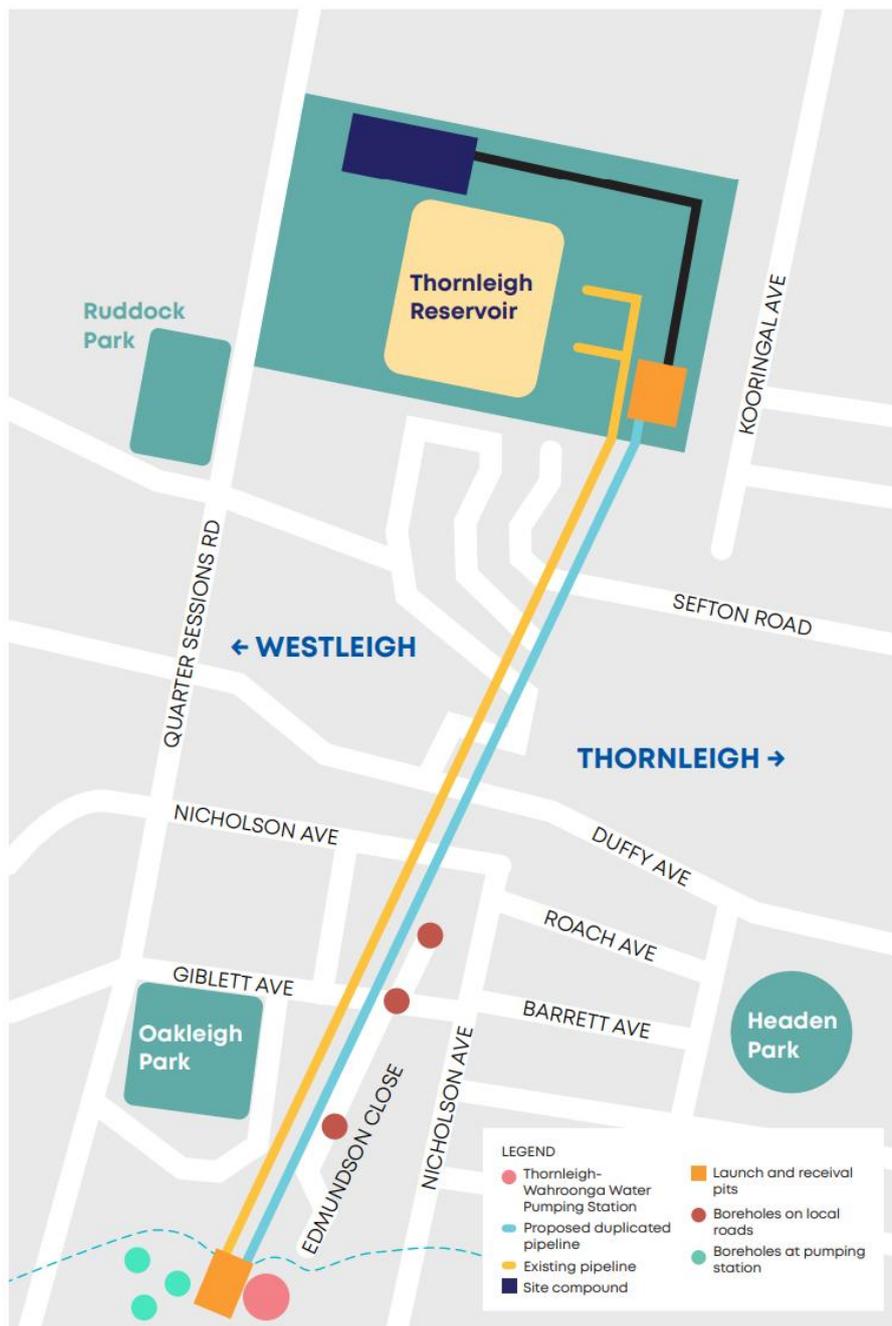
Where can I get more information?

If you have any questions about this work or the Thornleigh Pipeline Duplication project please contact the project team on **1800 010 556** and thornleighiom@sydneywater.com.au

You can also visit our website at sydneywater.com.au/thornleighiom

Thank you for your cooperation during this essential work. We will continue to keep you informed as the project progresses.

Work location map



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