



HOBSON HEADLINES

REPLACEMENT OF THE HOBSON BAY SEWER WITH A WASTEWATER TUNNEL
UNDER HOBSON BAY AND THE ORAKEI RIDGE

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Tunnel passes halfway mark

Work on the three-kilometre-long wastewater tunnel being constructed as part of Project Hobson has successfully passed the halfway mark and is nearing Victoria Avenue in Remuera. The \$118 million project will see the removal of the 90-year-old sewer pipe that bisects Auckland's Hobson Bay and the construction of a new wastewater tunnel and pump station.

The tunnelling machine passed under the Orakei ridge and the south-eastern railway line in October.

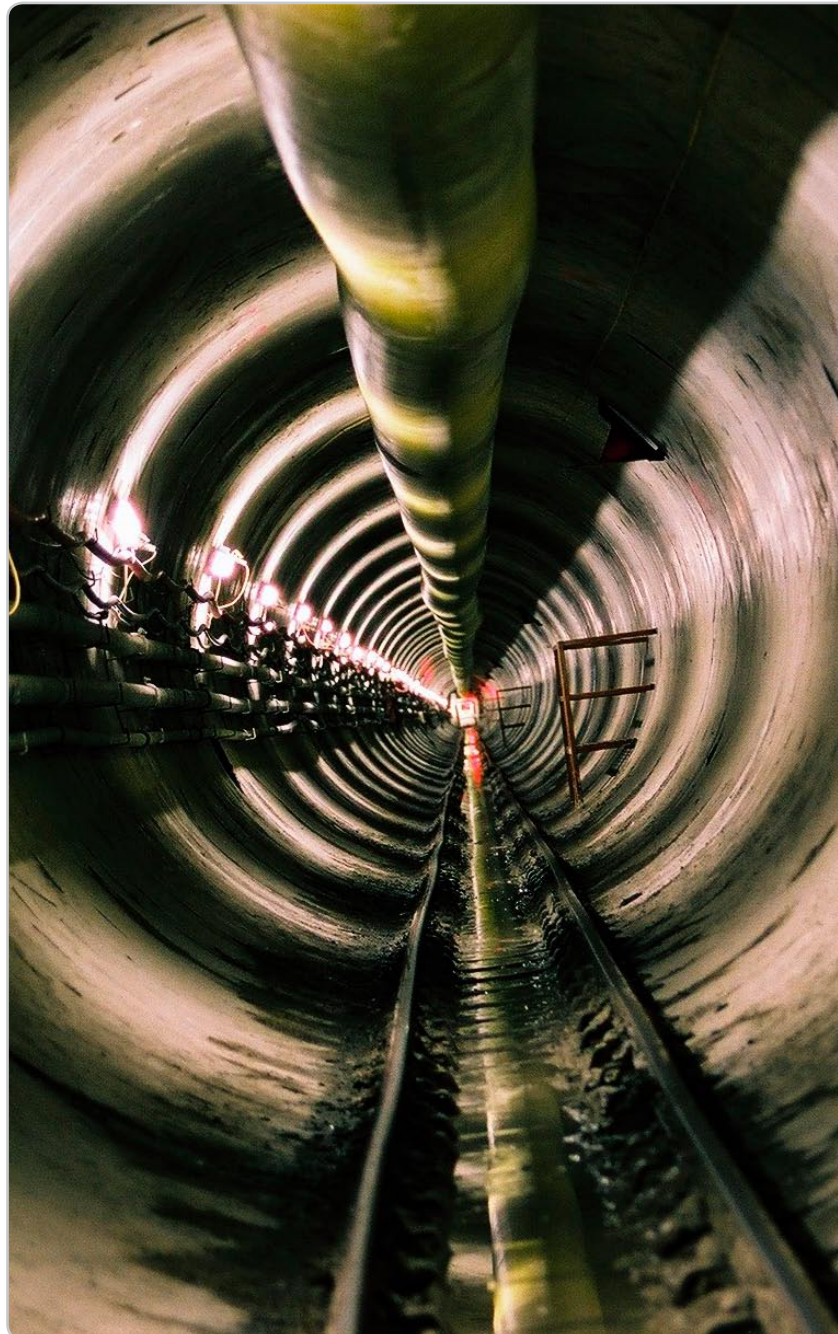
Watercare Project Manager Mike Sheffield says it has been progressing at a steady pace of around 120 metres per week since the commissioning trials were completed in July, with over 1,500 metres of tunnel now completed.

Mike says: "The tunnelling operation is very sequential; the machine's cutter-head bores through the earth and the spoil is removed using a conveyor belt system which loads it into wagons pulled by the locomotive. Upon returning to the shaft, the wagons are lifted out by gantry crane and emptied, with diggers and a further conveyor belt loading the spoil onto trucks for disposal off-site."

He continues: "At the same time, we have 150 pre-cast concrete segments arriving on site by truck each day. These are transported to the shaft by forklift, lowered by gantry crane and transported to the tunnelling machine by the locomotive on its return trip to the tunnelling face."

"To maintain the required pace, the whole cycle is repeated hourly. Over the past few months, the numerous processes have been refined and they are now working reliably, giving the good progress we have seen."

Construction on the project started in May 2007 and is due to be completed, following the removal of the old sewer, in 2010.



A view inside the tunnel.



Good progress made on drop shafts

Work on the drop shafts and retaining walls at the bottom of Logan Terrace in Parnell and Victoria Avenue in Remuera are progressing ahead of schedule.

The drop shafts will collect branch sewers from Parnell, Remuera, Meadowbank and Newmarket and connect to the new tunnel.

At the bottom of Victoria Avenue, a 12-metre-long cross passage has also been excavated to connect the drop shaft to the main wastewater tunnel. Currently it is one-metre short of the main wastewater tunnel's alignment, with the connection scheduled for early next year.

Additionally, a branch wastewater pipeline is being laid to replace the pipeline that currently runs across the bay from the bottom of Victoria Avenue to the ageing sewer pipe. Unlike the existing branch sewer, it will run under the bay rather than over it.

Wastewater from the branch sewers will be gravity fed to the new



Aerial view showing the Shore Road construction site with the causeway and trestle way along the existing sewer to the bottom of Logan Terrace and Victoria Avenue.

Orakei Domain pump station, pumped to the eastern interceptor, and then gravity fed to the Mangere Wastewater Treatment Plant for processing. The drop shafts will be covered with a concrete lid when the tunnelling is complete and the surrounding area will be landscaped.

Orakei Domain pump station progressing to schedule

Work on the new pump station in the Orakei Domain is progressing well, according to Watercare Project Manager Mike Sheffield. Contractors are lining the 36-metre-deep shaft with concrete and expect to have completed 80 per cent of it by Christmas.

“Well ahead of schedule, contractors have started work on the part of the pump station building which sits to the side of the shaft,” says Mike.

“It houses much of the electrical and control equipment needed to run the pumps and this early start will ease pressure during the later stages of the project.”

The exterior of the pump station building, which is due to be completed late next year, will be timber clad and the roof will be laid using Colorsteel. The surrounding area will be landscaped to help the site blend in to surrounding vegetation.

The station will pump wastewater from some central and eastern suburbs to the Mangere Wastewater Treatment Plant for processing.

Feedback

For more information, please contact Project Manager Mike Sheffield on 09 539 7364 (work), 021 577 364 (mobile), or by email at msheffield@water.co.nz