CENTRAL BULLETIN

Norgrove Avenue site, Norgrove Reserve

We're building the Central Interceptor, a super-sized wastewater tunnel to reduce overflows, creating a better environment for you to enjoy.

Project update:



Breakthrough at Western Springs

On Wednesday 10 September, our main TBM, Hiwa-i-te-Rangi, broke through into our Western Springs shaft. In the original CI programme, this would have been her final stop. Since the first consents, we now have plans to continue the tunnel some 3.2km further. Her journey now takes her through the shaft at Tawariki St and on to Point Erin Park in Herne Bay.



Our southern section inspection

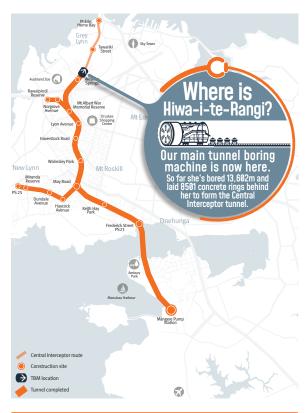
Commissioning the southern CI tunnel section

Come the end of 2024, we will be ready to commission a long section of the CI tunnel, along with Link Sewer C. This section runs from the western end of Miranda Reserve in Avondale, 3.2km to our May Rd site, then south, under the Manukau Harbour to the Māngere wastewater treatment plant. Before then we are carrying out a wide range of electrical, mechanical and instrumentation tests to ensure we are all ready on Day One.

Tunnel progress

Check out our website which now has a weekly update of the TBM's progress. https://www.watercare.co.nz/Central-interceptor/Constructing-the-Central-Interceptor.

You can also follow us on Facebook, or Instagram.







Site update

There are several construction activities happening at our Norgrove Ave site simultaneously. We are currently installing the 18 concrete shelf segments into the fully-lined shaft and concreting them into place. These oversized segments are brought to site in the early hours of the morning due to traffic restrictions and for the safety of road users. The shelves take the power out of wastewater flows, cascading these to the bottom of the shaft. If these flows were to strike the shaft floor from 29m they would quickly erode the shaft lining.

In mid-year we began constructing the control chambers in the reserve behind the shaft site. Chambers are concrete underground structures which provide access for regular maintenance and inspections. These chambers are also fitted with a control device to regulate the flow of wastewater from new and existing sewer networks entering the CI Tunnel. We are now installing a mechanical gate at another chamber – this gate enables us to manage overflows in heavy rain events.



Cascade shelves ready for installation at Norgrove Ave

Fibre-optic cable laying

You may have noticed some work in the edge of the roadway around the area. Our specialist fibre network contractor is installing 1.4km of new telecommunication ducting. This is for a fibre-optic cable from our Mt Albert site to Norgrove Ave and on to Rawalpindi Reserve. The new cable will enable Watercare to operate control gates at each site when the tunnel comes into service. It will do so via radio communications from the Māngere wastewater treatment plant to Mt Albert via the Sky Tower.

What's next

After we install the shelves, we will carry out a series of concrete pours to construct the shaft roof lid. We are now starting off-site construction of a further chamber to install on private land near the reserve. This will be connected later to the two chambers we have finished in the reserve. The permanent plant room, in the reserve area, which controls all the mechanical and electrical equipment, is next on the agenda.

In the previous bulletin, the May 2024 edition we stated our work was still on track to be completed by the end of the year. Our apologies as it was not clear that this meant shaft construction. We will still have works in the reserve itself until mid-2025.

Who it takes to build the Central Interceptor

CI stretches across 17 sites from Mangere to Herne Bay. Each of these sites has a team of people working on various activities and construction stages. There is a wide range of jobs on this project, each requiring different skills, backgrounds, experience, and qualifications. This regular feature will give some insight into one of our many important roles.

Andy Schmidt, Ventilation Mine Officer. (Unofficially "The Oracle")

What is a VMO? Describe some of your daily activities:

I started on CI in 2019 as TBM Tunnel Safety Advisor and Ventilation Officer. Initially the role was to design the ventilation systems for the shafts and tunnels, working out the best arrangements and suppliers. And getting everything planned and ready, such as electrical, mechanical, people and documentation.

I have a lot of day-to-day involvement with each site:

I assist the tunnelling and civils teams with gas monitoring. This involves checking maintaining, calibrating equipment, fixing faults with gas monitors. Ventilation surveys including long term studies especially once drives or tunnel sections are complete to determine the natural ventilation pressures.

Mine regulation work also takes up my time, particularly assisting with the emergency management plan: exercises and organising all the emergency equipment for sites, such as stretchers, trauma kits, oxygen therapy. I manage the self-rescuers for all sites, forecasting the numbers required and conducting monthly checks. I am a First Responder, a NZ Mines Rescue team member with bimonthly training.

One role I enjoy is to present at site pre-starts on subjects such as air quality, Occupational Health surveys and Mine Regulations compliance.

What is your background (work!)

I qualified as a Mining Engineer (Otago), worked as a coal miner for a few years, then a tunnel shift engineer on the Channel Tunnel), followed by mining engineer roles here and Australia. I've since had 23 years as a safety manager, including at Manapouri and the Waihi Gold Mine.

What qualifications do you need for your job?

I have a Certificate of Competence (CoC) as Ventilation Officer and hold A Grade Quarry and A Grade Tunnel Manager CoCs. My engineering degree gives me the technical ability to calculate and solve problems.

What are the challenges of your role?

On this project, is the changing dynamics and number of project work areas. At times it can get stretched, so I keep a field note-book for action items. There is a lot of working with people: there's a big focus ensuring a safe working environment, both daily and in an emergency, so that comes down to personal interaction.

Any questions?

For up to date information please see our website:

www.centralinterceptor.co.nz

You can also email us at:

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