

CENTRAL INTERCEPTOR BULLETIN

Māngere Pump Station site, Greenwood Rd, Māngere

Update on construction at Māngere site

Our Māngere team is making good progress preparing the site for the launch of Hiwa-i-te-Rangi our 190m long Tunnel Boring Machine (TBM). Pictured right, is just one small section of our TBM waiting patiently below the recent blue moon. Hiwa-i-te-Rangi, is named after a Matariki star and the name was chosen last year by students who attend schools along the tunnel route.

Preparing for a TBM launch 40m below ground is no easy feat and between December and May we've worked round the clock to construct the launch shaft, the dividing walls between our two shafts and part of the main pump station shaft. We've poured approximately 10,000m³ of concrete to date. Our biggest pour was the pump station base slab taking 17 hours and 210 concrete trucks delivering a whopping 1,300m³ of concrete.

Our civil engineering team then handed the site over to our TBM specialists. Last month, piece by piece we safely lowered several sections of the TBM and the cutterhead into the shaft which lies below sea level. We are currently connecting these pieces back together. The remaining TBM components will sit on the surface until Hiwa-i-te-rangi begins tunnelling in August.

Twin Rising Main Work

Meanwhile, closer to the Māngere Wastewater Treatment Plant, a second team is busy installing the 1200mm diameter pipes that make up the twin rising main. This consists of two large pipes connecting the new Māngere Pump Station to the Wastewater Treatment Plant. More than 420m of pipe is in place along the coastal walkway and the team is working to backfill and level the area. The coastal walkway will remain closed until we complete this work.

What's next

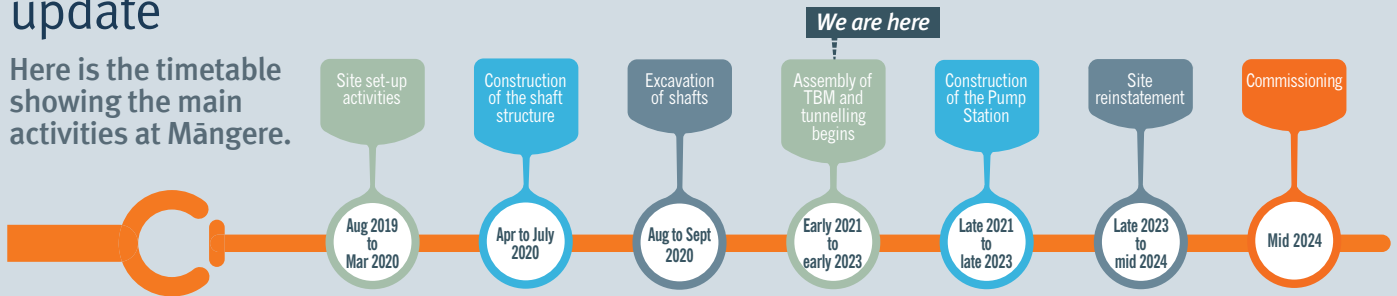
After launching, our TBM must travel about 350 metres before all sections, including the 18 gantries, can be connected. The surface team will then return to finish the remaining walls of our main shaft and start construction of the new Pump Station.

Installation of the pipeline within the coastal walkway is due for completion mid-2021. We will then start constructing the haul road to transport spoil from the Central Interceptor tunnel at Māngere to Puketutu Island. Before reopening the walkway, we need to build a divided barrier along the haul route to protect walkway users from construction trucks. We will also install a concrete barrier and fence to create a separate path along the shoreline. This path will be about 3m wide, narrowing to 2m in some places. We hope to open the walkway to the public in time for summer.



Work programme update

Here is the timetable showing the main activities at Māngere.



Our people

A lot of planning is involved in our various concrete pours. It's not just the logistics of hundreds of trucks arriving to site, it is also the technical aspects of concrete that need to be checked and double checked to make sure the quality of the concrete is maintained.

Introducing Theo Hoffman, a Project Engineer working in Māngere.

Position: Project Engineer

Role on site: Responsible for the permanent lining and internal concrete structures within the Māngere Pump Station shafts.

Background: Born in Auckland and raised on the Hibiscus Coast.

Previous jobs: I have a construction background having worked at Downer as a graduate and site engineer before spending two years working on Smart Motorway upgrades in the North West of England. After returning home last July

I started at GAJV as a site engineer and stepped up to project engineer at MPS this year.

Most memorable work moment:

Being a part of the very early rebuild stages after the Kaikoura earthquake in 2016. A few of us flew down from Auckland four days after the earthquake, picked up rental cars from Christchurch airport and drove as far north as we could until the road was undrivable, then parked in a paddock to get a helicopter into town. A key milestone was opening the first convoy routes in and out of Kaikoura for supplies and essential travel.

Outside of work: I try and stay active and during the lockdowns started doing a lot more training outdoors, completing my first half marathon and the Harbour Bridge swim. Now I'm looking for another challenge! I also like to catch up with family and enjoy spending time with my nieces.



Community Day

Keep an eye out on the Watercare Facebook page for details about an open day at our Māngere site to wish Hiwa-i-te-rangi safe travels as she gets ready to start her nearly 15-kilometre journey towards Grey Lynn.

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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