

TAPPED IN

Bringing you news, updates and information from Watercare



Programme manager Sven Harlos at the Waikato A Water Treatment Plant construction site.

Big boost for Auckland's water supply

We are currently building the first stage of the Waikato A Water Treatment Plant which will be able to deliver up to 50 million litres of water a day from June. While we planned to carry out this project in 2026 to stay ahead of population growth, its delivery has been brought forward in response to the drought.

Since work began last October, the construction site has been a hive of activity with 200 to 350 people working on site each day, making it one of Auckland's busiest sites. The team is using modular construction methods, with a great deal of pre-manufactured equipment, as well as new technology that has allowed large stainless-steel tanks to be spiral-welded on site.

By the time it's finished, it will be producing the same high-quality water as the existing Waikato Water Treatment Plant, using ultra-filtration membranes and activated carbon.

In addition to the new plant, we are building a booster pump station in Papakura to increase the volume of water that can flow through the Waikato watermain to the city each day.

As with the original Waikato Water Treatment Plant, the new plant has been designed to be expanded in stages to cater for Auckland's growth. The original plant's capacity has increased six times since it was built in 2002.

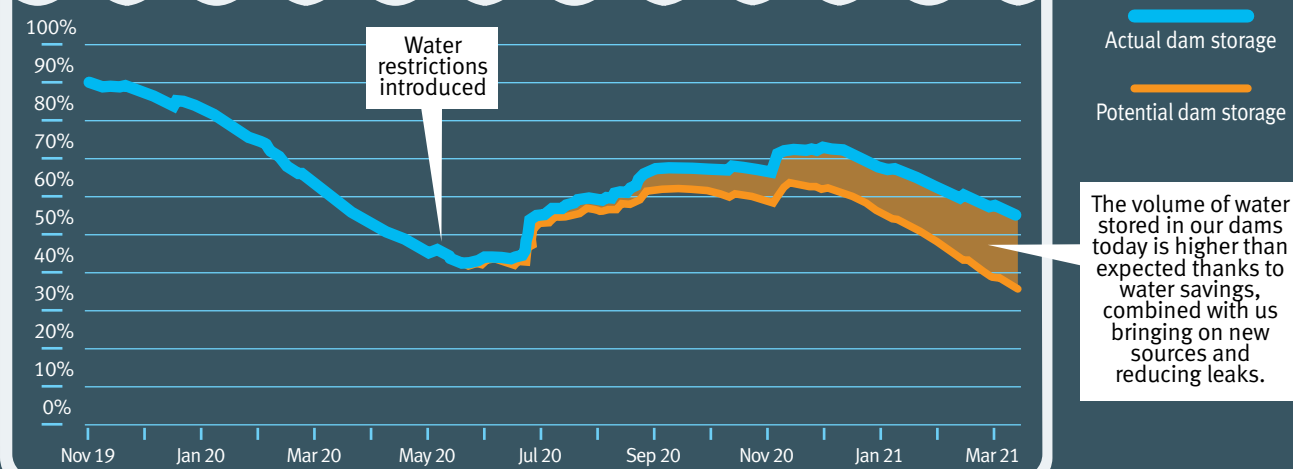
Waikato A is the biggest of our drought response infrastructure projects and will make our city's water supply more resilient to drought. That's because the Waikato River's catchment area covers more than 14,000 square kilometres, whereas our water supply dams have a combined catchment area of 158 square kilometres.

Find out more about our drought response in this edition of *Tapped In*.

Our drought response

While our dam levels are similar to this time last year, our city's water supply is in a stronger position today thanks to our customers' incredible water-saving efforts, combined with us bringing on new sources and reducing leaks. This is proof that a successful drought response requires action from us, the water provider, and you, the affected community. Together, let's keep up the good work as we head into winter.

Total dam storage



New water sources

Since May 2020, we have been working to increase the total volume of water available for Auckland. Our work to expand three existing treatment plants and build three new treatment plants means that by the end of 2021, the total volume of water available will have increased by up to 106 million litres of water a day. That's enough to meet the needs of 400,000 people (about the population of Palmerston North, Tauranga and Hamilton combined).

Water savings

Since May 2020, Aucklanders have collectively saved close to 15 billion litres of water – that's almost enough to fill Mangatawhiri Dam, our second largest dam in Auckland.

Our leak detection programme has also helped save 5MLD* – that's the equivalent of what we can produce at our new treatment plant in Pukekohe.

How are we performing against our targets?

We are committed to ensuring our customers can enjoy unrestricted access to water 95 per cent of the time. We have been meeting this standard, having only implemented restrictions twice in our 29-year history. During severe droughts, such as the ones we experienced in 1993/4 and last year, restrictions are a good way of conserving the water stored in dams until the rain returns.

From an infrastructure perspective, we must ensure the volume of water stored in our dams doesn't drop below 15 per cent during a severe drought (specifically, a drought with a 1 per cent chance of occurring). The drought we experienced last year was the worst on record however the volume of water stored in our dams didn't drop below 42 per cent.

Reducing leaks in our network

Our leak detection team has swept 4,000 kilometres of pipes with acoustic technology, saving about 6 million litres of water per day.

The programme targets areas with high numbers of reported leaks initially and will continue until all our 9,000+ kilometres of pipes are surveyed.

It is a key part of the effort to minimise water lost to leaks. When we find these invisible leaks in our network, we repair them and prevent the associated water loss. By repairing these smaller leaks which are normally invisible on the surface, we prevent larger leaks that can occur when the ground dries up and retracts, causing pipe movement and sometimes breakages.

Acoustic leak detection involves listening for signs of a leak by tapping a stick microphone to a meter or pipe connection. Leaks have a distinctive sound as they are constantly running. The volume of the leak is estimated based on the sound detected – a big leak will generate a loud sound.

Occasionally there are leaks in private pipes and if that's the case, we ask the customer to get them fixed as soon as possible. For information on how to check for a leak on your side of the point of supply, visit watercare.co.nz and search for 'check for a leak'.

Leak detection areas in Auckland



Did you know?

This summer, we had 20 per cent more people on the ground fixing leaks reported to us, which allowed us to meet our targets for repairing them.

Eden Park gets a helping hand

Eden Park – New Zealand's national stadium – is switching from using treated drinking water to bore water to irrigate its turf, thanks to a new custom-made water treatment plant and reinstated bore that we have provided, will result in projected water savings of 16 million litres of water per year.

The historic bore has been out of service since 2008 because sandy sediment and minerals were causing major concrete stains and clogging irrigators. But now, the 25-metre-deep bore will pump out up to 163,000 litres per day to water the turf.

The bore revitalisation project began in May last year when water restrictions were introduced to combat Auckland's severe drought. The turf is sown with temperate rye grass, which requires daily irrigation in summer to keep it in prime condition.

A new mechanical filter removes large sand particles, before the water is piped underground to the water treatment plant.

The mini plant consists of three tanks which remove any further small particles. Chlorine is added to remove manganese and iron. It

travels to six 30,000-litre holding tanks. A booster pump sends it to 300 sprinklers dotted around the fields as required.

The irrigation system is computer controlled but turf manager Blair Christiansen and his team of ground staff decide how much and where the water will go. What appears to be a massive green lawn is in fact a patchwork

of grass requiring complex management. Different parts of the field have their own microclimate, and the shade footprint from the stadium's roof alters as seasons progress.

We are looking to extend the bore water irrigation project and likely candidates include Lloyd Elsmore Park in Pakuranga – one of the largest sports parks in Auckland.



Eden Park turf manager Blair Christiansen monitors the grounds.

Did you know?

The water saving from using the bore equates to the annual water use of 87 households.

Learning to look after your loo



Education coordinator Sarah Slater highlights the importance of only flushing the 3Ps – poo, pee and (toilet) paper – at Eye on Nature 2021.

In March, around 400 school-children discovered the wonders of wastewater at our Eye on Nature 2021 stall in Manurewa.

This four-day event saw pupils from 16 schools participate in a range of wastewater-related activities, from making saltwater rainbows to learning why you cannot flush wet-wipes down the toilet.

The most popular challenge was the relay race, where kids enjoyed dressing up in personal protective equipment (PPE) and crawling through open barrels that resembled wastewater pipes. This led to conversations about our engineers and crews who look after more than 8,000 kilometres of wastewater pipes across Auckland.

Each year, the Eye on Nature movement takes children and their families on an experiential journey through environmental themes. This year's theme was mai nga maunga ki te moana, ko te wai te ora / from the mountains to the sea, water for life.



The event attracts more than 10,000 people and encourages children to adopt sustainable solutions every day, everywhere, in all aspects of their lives.

Our free school education programme teaches primary and intermediate children about water, wastewater and the local environment. For more information or to download the lesson plans and resources, visit waterforlife.org.nz/kids-stuff

Spruce up your meter

Each month, around 8,000 water meters across Auckland are not read due to accessibility issues. About 27 per cent of those 'no reads' are caused by overgrown shrubs or piles of gravel covering meters, and even cars parked over meters. These obstacles prevent our contractors from doing their job.

Meter readings are important for ensuring our customers are billed accurately. We base each bill on the measurement our meter readers take from the meter. If the meter isn't accessible, this means our customers will receive an estimated bill rather than an actual bill.

Most water meters can be found outside properties, on grass berms or set within concrete paving. Some water meters are on private property or sometimes on a neighbour's land.

This weekend, remember to tidy up around your meter to ensure we can bill you on an actual read.

For more information on water meters, visit watercare.co.nz and search for 'accessing your water meter'.



Price change reminder

From 1 July, our water and wastewater prices will increase by around 7 per cent. This works out to be about \$1.50 per week for average households.

For more information, visit watercare.co.nz and search for 'our charges'.



KEEP IN TOUCH

Tapped In is your newsletter. If you would like to talk to us about any stories from this edition or your ideas for future issues, we'd love to hear from you. To get in touch, please email our communications team at communications@water.co.nz.

You can learn more about what we do at www.watercare.co.nz.