

WHERE WE'RE AT WITH WATER...

Frimley

As we head into winter, work at the Frimley water storage and treatment facility continues at pace.

This facility's three main components are a new eight million litre water storage reservoir, a new treatment building and a series of new bores; linked by a pipe network that was installed at the start of the project.

Over the last few months the reservoir and treatment building have been completed, with the installation of the pumps and equipment within the treatment facility now well advanced.

Two of the new bores have been drilled and tested and are currently being connected to the treatment building, while the third bore is due for completion in June.

This project is a key part of the Hastings Drinking Water Strategy, and is expected to be contributing to Hastings' largest urban water supply (Hastings, Flaxmere, Havelock North) by September this year.

Once all of the physical works are completed, a comprehensive commissioning and testing programme of all elements



will be carried out, prior to delivering safe, treated water into the city network.

As well as enabling effective water treatment, this facility, along with the 10 million litres at the Waiaroha site and 20 million litres in the Havelock North reservoirs will give the system resilience, ensuring there is drinking-water available in the event of a natural disaster.

NEW PARK SPACE

The removal of the maintenance area and sheds on Frimley Park has largely been completed, with a remaining building due for removal after the treatment building has been built.

The removal was agreed to during community discussions on developing the drinking water infrastructure on the park, with the land to be reintegrated into the park.

A plan for the use of the 0.2-hectare space is expected to be published for public discussion as part of a draft 10-year Reserve Management Plan for Frimley Park by July.

Waiaroha

On the corner of Southampton St and Hastings St in central Hastings, the Waiaroha water storage and treatment facility is taking shape, and will provide water to properties on the reticulated supply in Hastings and Havelock North.

The work to date has been focused on stabilising the ground on which the two reservoirs will sit; each holding five million litres of water.

Construction of the foundations and concrete floor of the first reservoir has been completed and the steel dome roof and walls are now progressing. Alongside this, the preparation of the foundations of the second reservoir are well underway.

The proposed water treatment plant building is located between the two reservoirs and work to date has included foundation excavation and placement of underground pipes.

The installation of the pipes and connections that will link the Waiaroha site to the existing network within the Hastings CBD has now been completed. The patience and support of local businesses and the general public has been appreciated.

LEARNING ABOUT FRESH WATER

While this facility is being built to increase the capacity, and improve the safety and resilience of the city's drinking water supply, there is another educational element to this project that will offer the community a chance to understand more about the water that comes out of our taps.

Facing onto Southampton St, it will comprise an education building and landscaping that will offer people an insight into how the water ecosystem works from

its source in the aquifer and following its journey from the mountains to the sea.

This education centre is being funded from external sources and will host community groups and schools, enabling them to take part in activities, discussions and planning related to water.

The aim is to help us understand our aquifer system and how nature fills them, how we use water, the importance of water to mana whenua, and the treatment and supply of our drinking water.

The landscaping of the wider site will complement the learning experience, reflecting the journey of our water from the mountains to the sea, while the 'working' parts of the site – the pipes and valves – will be visible through a glass wall on the treatment plant.

The education building is nearing the end of the building consent phase and construction is due to start in June, with the work expected to take 12 months to complete.



safety ♥ resilience ♥ capacity



Small communities

Another small community drinking water supply upgrade is nearing completion with the Whirinaki and Esk supply in the final stages of commissioning and testing. This facility is expected to be supplying drinking water in June.

It comes after new facilities for Waimārama, Haumoana/Te Awanga, Te Pōhue and Clive were commissioned in 2021.

Well advanced is the new treatment plant for the Waipātiki community, with testing and commissioning on the new plant and water supply due to be carried out in June and July. It is expected to be 'turned on' by August.

Under construction is the new water treatment facility at Whakatū and this is expected to be completed by the end of September 2022. The tank and treatment building is being constructed on Ngaruroro Avenue Reserve, with site mitigation and recreational upgrades included.

The advantages of the site include that it is close to existing drinking water infrastructure.

The work on the reserve has meant planned future upgrades of the playground have been brought forward a number of years.



Site works for drinking water treatment at Whakatū

Managing our stormwater – Lowes Pit



Prototype Littatrap filters being installed in roadside sumps on Hazelwood Street, which drain into Lowes Pit

Along with providing drinking water, managing stormwater is a key council function.

Stormwater systems are used in built-up areas to remove rain water from streets to prevent flooding, and also in commercial and home settings where water comes from other sources.

Preventing contaminated stormwater entering the natural environment takes continual management and maintenance and one project that is receiving extra attention at the moment is the remediation of Lowes Pit – a body of water in the Ōmahu industrial zone.

The site used to be used as a pit for storing shingle for building roads in the 1940s, and over time it filled up with water. It is an area that stormwater discharges into from the surrounding industrial area.

In 2020, council undertook independent assessments of the make-up of this stormwater discharge to find out whether there was a risk of contaminants, and while there was no evidence of human waste in

samples taken, E-coli bacteria (predominantly from sheep and cows) was found at levels consistent with other urban stormwater systems, and there were some elevated zinc levels associated with roofing materials and copper levels associated with the wear of vehicle brake pads.

In response, to treat the stormwater and improve the quality of the water discharge into the lake, a programme of work is underway to install filters in the roadside sumps, construct first flush devices to divert the first 5-10% of stormwater from rainfall events (which typically hold the highest contaminant load) to wastewater and install two bioscape systems at the discharge points into the lake.

In addition, council intends to work with industry to improve onsite stormwater management measures. This work represents a \$2.2m investment to improve the quality of this stormwater discharge and protect the surrounding environment.

Wastewater treatment and management

A third water function that Hastings District Council manages is wastewater – which is collected and treated at the Wastewater Treatment Plant in East Clive.

Both industrial and domestic wastewater is treated at the plant and then discharged into Hawke Bay via a 2.75km long ocean outfall.

This plant was built in 2008/09, at the time a first of its kind in New Zealand for its innovative biological (using bugs that naturally occur in people's digestive system) trickling filter process, which has the advantage of producing no "sludge" to dispose of to landfill.

What made this a particularly unique project both nationally and internationally was its successful

achievement of not only a technical solution but one that met cultural and spiritual aspirations of tangata whenua.

This was aided through the Hastings District Council: Tangata Whenua Wastewater Joint Committee, formed in late 2001 to bring tangata whenua into the decision-making around the plant's design.

This resulted in the creation of the Rakahore Channel – a collection of rocks the treated waste flows over for spiritual cleansing and reconnection with papatuanuku, before it is piped and discharged into the ocean.

Between 35,000 and 70,000 cubic metres of mostly liquid matter goes through the treatment plant every day. There are larger flows during the height of the horticultural season, from February through to April.

