

MANGERE MATTERS



The Mangere Wastewater Treatment Plant services two thirds of Auckland's wastewater.

Project Manukau: 10 years since completion

A decade has passed since the last piece of the old oxidation pond wall was removed, giving the tide free reign over its territory and marking the completion of our \$450 million transformation of the Manukau Harbour.

Project Manukau was the largest rehabilitation project in New Zealand history and involved the removal of oxidation ponds from the Manukau Harbour, the restoration of the harbour foreshore and upgrading the Mangere Wastewater Treatment Plant to improve the quality of treated wastewater.

Reuniting the Oruarangi Creek with the sea in April 2005 also cemented the close relationship between Watercare and Makarau Marae.

It was an emotional moment for marae kaumatua Maurice Wilson, who died in 2013. At the time, recalling how he would go fishing off the Manukau Harbour foreshore before the oxidation ponds were built, Maurice said: "It was hard for our children and grandchildren to believe what we were saying was true. Now, I think they'll realise a lot of the things we talked of were true."

Prior to the upgrade, odour issues plagued the treatment plant. In 2000, we received 144 odour complaints. Last year, the plant received just 10 complaints.

The resource consents under which the plant operates requires no noxious, objectionable or offensive odours travel beyond the boundary. This is why the land on the eastern side of Greenwood Road is used exclusively as an odour buffer area between the plant and the community.

High-quality native vegetation grows over the odour buffer land, providing an environment similar to that which would have existed prior to human settlement.

The upgrade also reduced pathogens in the treated wastewater 10,000 fold, raising water quality in the Manukau Harbour to its highest level since the 1930s. In addition, replacing the ponds with the land-based

treatment plant enabled the restoration of coastal tidal flats and the rehabilitation of some 13 kilometres of coastline.

Ten years on, the foreshore continues to flourish – in particular the Watercare Coastal Walkway, from which you can see wading birds from as far away as Siberia, Mongolia and China.

Looking to the future, Watercare chief executive Raveen Jaduram says the Mangere community can be confident that the local environment is only going to get better.

Work is already under way to rehabilitate Puketutu Island as a regional park. This involves filling the former quarry with cleanfill and treated biosolids from the plant.

"Our vision for the island is for it to become a superb park for the people of Auckland while still recognising the island's unique Maori and European heritage," says Mr Jaduram.

Treating Auckland's wastewater

Our wastewater network is set up so that the majority of Auckland's wastewater flows to the Mangere Wastewater Treatment Plant.

Over the years, we have invested hundreds of millions of dollars in the plant so that it can meet the needs of our growing population.

Every day, the plant treats about 319 million litres of wastewater to a high quality. We will continue to invest in the plant while working with local community groups on transforming the surrounding area into a popular recreational place.

1. Puketutu Island

Work is under way to rehabilitate Puketutu Island as a regional park, restoring the quarry area of the island using cleanfill and treated biosolids from the Mangere Wastewater Treatment Plant.

Mangere residents are already benefiting from the project, which is preventing up to 30 trucks a day from travelling through the neighbourhood carrying the biosolids to landfills.

The park will cover 197 hectares – an area larger than Cornwall Park – and our vision is for it to become a recreational area for the people of Auckland to enjoy.

2. Central Interceptor

This is a new wastewater tunnel, proposed to run for 13 kilometres between Western Springs and the Mangere Wastewater Treatment Plant.

The tunnel will achieve three things: it will duplicate the section of the Western Interceptor that is old and at risk of failure; it will provide capacity to accommodate population growth; and it will improve the environment by reducing overflows by up to 80 per cent.

Aside from an additional pump station on the Mangere site, the tunnel will have a minimal effect on the treatment plant from volume, process or quality perspectives as flows currently served by Mangere will be diverted to the Rosedale treatment plant.

Construction is expected to begin in 2018 and is scheduled to finish in 2024.

3. BNR project

We are building an additional Biological Nutrient Removal (BNR) facility at the Mangere Wastewater Treatment Plant to ensure we can



KEY: Watercare Coastal Walkway and other public walking tracks Operational areas Watercare land

continue to operate in an environmentally sustainable fashion as Auckland grows.

BNR is a process that uses bacteria to remove nutrients from the wastewater stream. High levels of nitrogen in waterways can reduce water quality and harm marine life.

The project involves the construction of a new road linking Ascot Road and Puketutu Island, and an embankment to the south of the new facility.

Construction of the facility began in March 2015 and is scheduled to finish in December 2017. We plan to duplicate this project in the 2030s.

4. Odour buffer land

A community action group called SOUL has publicly suggested that fast-tracked housing can be developed on Watercare's odour buffer land. They say the land is a viable alternative to land adjacent to the Otutaua Stonefields that has special housing area (SHA) status. This is incorrect.

Our resource consents require us to ensure no noxious, objectionable or offensive odours

reach the plant's neighbouring community. This is why the land in question is used exclusively as odour buffer land.

We have an odour model to predict the level of odour at various distances from the treatment plant. It shows that this land is adversely affected by odour and is therefore not suitable for housing, an activity with a very low tolerance for the effects of odours.

KEEP IN TOUCH

Mangere Matters 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.

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