

Mangere Wastewater Treatment Plant

Sector	Building & Infrastructure
Sub-sector	Infrastructure
Project size	Dependent on end user of wastewater volumes
Looking for	A solution to use or recycle the disposed water from the Mangere wastewater treatment plant instead of it being discharged directly into the Manukau Harbour.
Web-links	<ul style="list-style-type: none">• www.watercare.co.nz• https://www.watercare.co.nz/CMSPages/GetAzureFile.aspx?path=~\watercarepublicweb\media\watercare-media-library\wastewater-collection-treatment\2015_wastewater_treatment_performance_watercare.pdf&hash=aa332c69c252b093aca40752be05827cdo497adaa91e27b5fa8dc7412d19085

Summary

Each day, Watercare Services Limited (Watercare) supplies around 326 million litres of water to the people of Auckland and collects, treats and discharges around 400 million litres of wastewater. The most modern of Watercare’s wastewater treatment plants, the metropolitan plant at Mangere, discharges 116,522,212 litres of that. It uses primary (mechanical), secondary (biological) and tertiary (filtration and disinfection) methods to treat that wastewater. Composition of the final effluent must meet standards established to protect public health, the local environment, and Auckland’s coasts, estuaries and harbours. Currently water is discharged in the Manukau Harbour after treatment at the Mangere wastewater plant. Auckland is working towards a circular economy, so an opportunity exists to use or recycle this water instead.

Background

The land-based wastewater treatment plant at Mangere is designed to manage the bulk of Auckland’s wastewater treatment needs well into the 21st century. The technology used at the plant has reduced the treatment cycle of wastewater from 21 days to 13 hours, and the treatment process reduces odours and significantly improves the water quality going into the Manukau Harbour.



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