



WASTEWATER MANAGEMENT – CASE STUDY

Onetangi Public Toilets

Onetangi Bay is situated on the southern shore of Onetangi Bay, Waiheke Island. It is renowned for its 1.6 kms of fine, white sandy beach and Waiheke's largest beach. It's north facing aspect hosts spectacular views of Coromandel Peninsula and Little Barrier Island. Onetangi is at the eastern end of residential Waiheke, making it a quiet place to relax.

Onetangi beach is popular for ocean enthusiasts in particular; swimming, sea kayaking, fishing, surfing, sailing, water skiing. For those who prefer land based activities the forest and bird reserve is home to an abundance of native bird and plant species and is great for walking. The unique micro climate of Waiheke has led to the birth of an internationally acclaimed wine culture. The heart of this culture can be found in Onetangi.

The Auckland Regional Council required an onsite wastewater treatment system that not only treated the effluent to a high standard but removed the nitrogen to a point that the resulting water would not have any adverse effects on the surrounding environment.



Figure 1. – Onetangi Beach, Waiheke Island

Using the set criteria Innoflow Technologies NZ Ltd (ITNZL) produced a wastewater management solution that met with the Department of Conservation and the Rotorua District Council's high expectations and strict requirements.

The wastewater system provided includes



Figure 2. Photo showing the rtPBR treatment system bed & tanks



The land application area was placed in a scrub/bush covered hill area, creating low visual impact and no odours as these two aspects were important.

This area was already established with ground cover and trees so no additional planting was required. This provides an aesthetically appealing feature in the subdivision and enhance sevap-transpiration.



Figure 3. Irrigation Field



Waipatiki Beach is a small white sand surf beach restricted by large headlands on either side. Surrounding land is steep, erosion prone farmland, with pockets of pine plantations, and an area of protected native bush.

The Waipatiki Stream is susceptible to flooding, and combined with the high groundwater table, the catchment often has surface water present in times of high rainfall.

Taking these factors into consideration was imperative to help protect the area environmentally.

Figure 4. Preservation of the coastline was a priority.