



Manaaki Whenua
Landcare Research

Landcare Research's new facilities at the University of Auckland's Tamaki Campus

Reducing sewerage

The goal is to minimise the load that 90 staff, visitors and laboratory usage places on the sewer and wastewater system. The key to achieving this goal is using low-impact alternatives that meet all health and waste discharge requirements.

Ground floor conventional toilets

Low water-use flush toilets have been installed on the ground floor. Rainwater (collected and stored on site) is used for flushing these toilets plus the urinals on all floors.

Composting toilets were not suitable for the ground floor because the hole that would have needed to be excavated for the collection unit of the composting toilets would have been below flood level. This, plus the additional costs associated with excavation, extra pumping, tanking and ventilation, made composting toilets impracticable and uneconomic for the ground floor.

Composting toilets on Levels 1 & 2

The first and second floors have composting toilets with seven toilets feeding two large Clivus Multrum composting units. These toilets are located against the north wall to help keep the composting tanks warm for optimal functioning. Cleaning uses bio-friendly products similar to those used with a septic tank system. It is expected that the tanks will need emptying about once every six months, and the tank area has external access to make servicing easier.

The system conforms to the Australian standard for composting toilets, and the New Zealand standard for on-site wastewater disposal. This means compost can go onto the surrounding gardens.

Liquid toilet waste drains to the sewer system, as do the urinals and washbasin wastewater. Waste water from laboratories goes via local sediment / dilution traps to the sewer via a 1000 litre detention/dilution tank, and then into the sewer system. There is insufficient land area available for soakage pits for 'grey water' disposal.

The load being placed on the sewer system is markedly smaller than for a conventional building of similar size and function.

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