

Papakainga & Marae Project Profiles AdvanTex® Wastewater Treatment Systems

Papakainga and Marae provide living spaces that support communities to gather, rejoice, and grow.

Having a reliable wastewater system that is low in ongoing operating requirements is critical to honor the current and future environment and community experience.

To support this, Innoflow designs, builds and operates AdvanTex ® wastewater treatment systems that are:

- Simple and largely passive
- Resilient to fluctuating usage
- Scalable to support future growth
- Can be retrofitted in sites with existing septic tanks or infrastructure
- Very low ongoing operating costs
- High quality components with long warranties
- Minimal visual impact and no noise
- Produces high-quality treated effluent for effective reuse and land irrigation



Contact Innoflow on +64 9 426 1027 or info@innoflow.co.nz

Kaikohe Papakainga (10 Houses) (Kaikohe, Far North)



Innoflow scope: design, build, operate Installation date: 2021

Usage and design summary: Occupancy:

10 houses (42 people) at 180 L/person Total 7,560 L/day

Design volume:

7,560 L/day peak flow 5,700 L/day average flow

Required effluent quality:

BOD5 :<20mg/L TSS:<30 mg/L

Land application method:

3mm/day loading rate, applied to land via 2,250m² sub-surface laid pressure compensating driplines

Installed Wastewater System

AX100 wastewater system MVP (non-telemetry) control panel 2,520 lineal meters of sub-surface laid drip irrigation lines

Taneatua Eco Village/ Papakainga

(15 houses)

(Taneatua, Bay of Plenty)



Innoflow scope: design, build, operate Installation date: 2021

Usage and design summary: Occupancy:

15 units, ~55 people at 180 L/person

Design volume:

10,000 L/day average flow

Required effluent quality:

BOD5 :<20mg/L TSS:<30 mg/L

Land application method:

3mm/day loading rate, applied to land via 3,300m² sub-surface laid pressure compensating driplines

- 2 x 25,000 L pumped septic tanks and liquid only sewer reticulation
- AdvanTex AX100 wastewater system
- MVP (non-telemetry) control panel
- 3,333 lineal meters of sub-surface laid drip irrigation lines

Te Kao Papakainga (36 houses) (Te Kao, Far North)



Innoflow scope: design, build, operate **Installation date: 2022**

Usage and design summary: Occupancy:

36 units, ~180 people at 180 L/person

Design volume:

32,400 L/day peak flow

Required effluent quality:

BOD5:<20mg/L TSS:<30 mg/L

Land application method:

3mm/day loading rate, applied to land via 10,800m² sub-surface laid pressure compensating driplines

- Gravity sewer reticulation
- AdvanTex AX400 wastewater system
- TCOM (telemetry enabled) control panel
- 10,800 lineal meters of sub-surface laid drip irrigation lines



Piritahi Marae (Waiheke Island, Auckland)



- * 1210 day visitors at 40 L/person and 90 overnight visitors at 150 L/person.
- * ² 10 day visitors at 40 L/person and 4 overnight visitors at 150 L/person 35 afterschool program attendees at 15 L/person.

Innoflow scope: design, build, operate Installation date: 2021

Usage and design summary: Occupancy:

- * 1 Large events Total 21,900 L/day
- * ² Daily & Weekly Activities Total 1,525 L/day

Buffered design volume using a buffered AdvanTex ® system: 3,450 L/day

Required effluent quality:

BOD5 :<15mg/L TSS:<15 mg/L

E.coli: <200 cfu/100mL

Land application method:

3mm/day loading rate, applied to land via 1,150m² sub-surface laid pressure compensating dripline

- Gravity sewer reticulation
- AdvanTex AX400 wastewater system
- TCOM (telemetry enabled) control panel
- 10,800 lineal meters of sub-surface laid drip irrigation lines



Ngati Kohua Marae (Clevedon, Auckland)



- * 1200 day visitors at 40 L/person and 60 overnight visitors at 150 L/person.
- * ² 15 people at 220 L/person

Installation date: 2022

Usage and design summary: Occupancy:

- * 1 Large events Total 17,000 L/day
- * ² Daily & Weekly Activities Total 3,300 L/day

Buffered design volume using a buffered AdvanTex ® system: 5,000 L/day

Required effluent quality:

BOD5 :<15mg/L TSS:<15 mg/L

E.coli: <200 cfu/100mL

Land application method:

3mm/day loading rate, applied to land via 1,667m² sub-surface laid pressure compensating dripline field.

- 6,000 L grease traps at kitchen
- 2 x 25,000 L buffer tanks and timer dosed pumps
- 2-stage AX120
- UV disinfection unit
- · Telemetry enabled control panel.
- 1,667 lineal meters of sub-surface laid drip irrigation lines

Past Installations

Installation date: 2012

Usage and design summary:

- Occupancy: weekend visitors, small events, and occasional Tangi
- Peak volume over 3-day event: 20,000 L/day
- Buffered volume using a buffered AdvanTex * system: 9,590 L/day
- Required effluent quality: BOD5 :<20mg/L TSS:<30 mg/L
- Land application method: highly treated effluent applied to 1,920m² pressure compensating dripline field



Installation date: 2013

Usage and design summary:

- Occupancy: 50-day guests, 150 overnight guests and general use
- Peak volume over 3-day event: 63,500 L/day
- Buffered volume using a buffered AdvanTex ® system: 10,000 L/day
- Required effluent quality: BOD5:<20mg/L TSS:<30 mg/L
- Land application method: highly treated effluent applied to 2,000m² pressure compensating dripline field

Ötākou Runaka Marae (Dunedin)

Installation date: 2009

Usage and design summary:

- Occupancy: general visitors and 150-person overnight events
- Peak volume over 3-day event: 15,000 L/day
- Buffered volume using a buffered AdvanTex * system: 10,000 L/day
- Required effluent quality: BOD5:<20mg/L TSS:<30 mg/L



Past Installations

Installation date: 2014

Usage and design summary:

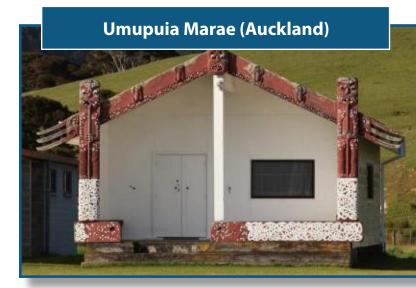
- Occupancy: 100 day and 60-person overnight guests plus general use
- Peak volume over 3-day event: 23,700 L/day
- Buffered volume using a buffered AdvanTex * system: 6,000 L/day
- Required effluent quality: BOD5:<20mg/L TSS:<30 mg/L
- Land application method: highly treated effluent applied to 1,920m² pressure compensating dripline field



Installation date: 2011

Usage and design summary:

- Occupancy: 400 day and 100-person overnight guests plus 3 permanently occupied residential dwellings
- Peak volume over 3-day event: 31,000 L/day
- Buffered volume using a buffered AdvanTex ® system: 10,000 L/day
- Required effluent quality: BOD5 :<20mg/L TSS:<30 mg/L
- Land application method: highly treated effluent applied to 2,000m² pressure compensating dripline field





wastewater specialists

Contact Innoflow for Design and Pricing Information

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