

APPENDIX M - COMPOSTING TOILET WASTE MANAGEMENT PLAN

Composting Toilet System & Waste Management Plan

Project: Rabbits Eat Lettuce Festival

Prepared for: South Burnett Regional Council



1. Overview

To supplement the number of chemical based port-a-loo toilets, Rabbits Eat Lettuce proposes the use of a composting toilet system as a sustainable and environmentally responsible alternative. This system is designed to:

- Minimise environmental impact.
- Reduce reliance on single-use plastic and chemicals.
- Support our commitment to sustainable event operations.
- Be aligned with global best practices in green event management.

The Composting Toilet System will be gradually introduced. Initially events will use a combination of both composting toilets and chemical based event toilets.

2. System Description

2.1 Toilet Design



Type: Non-flushing composting toilets.

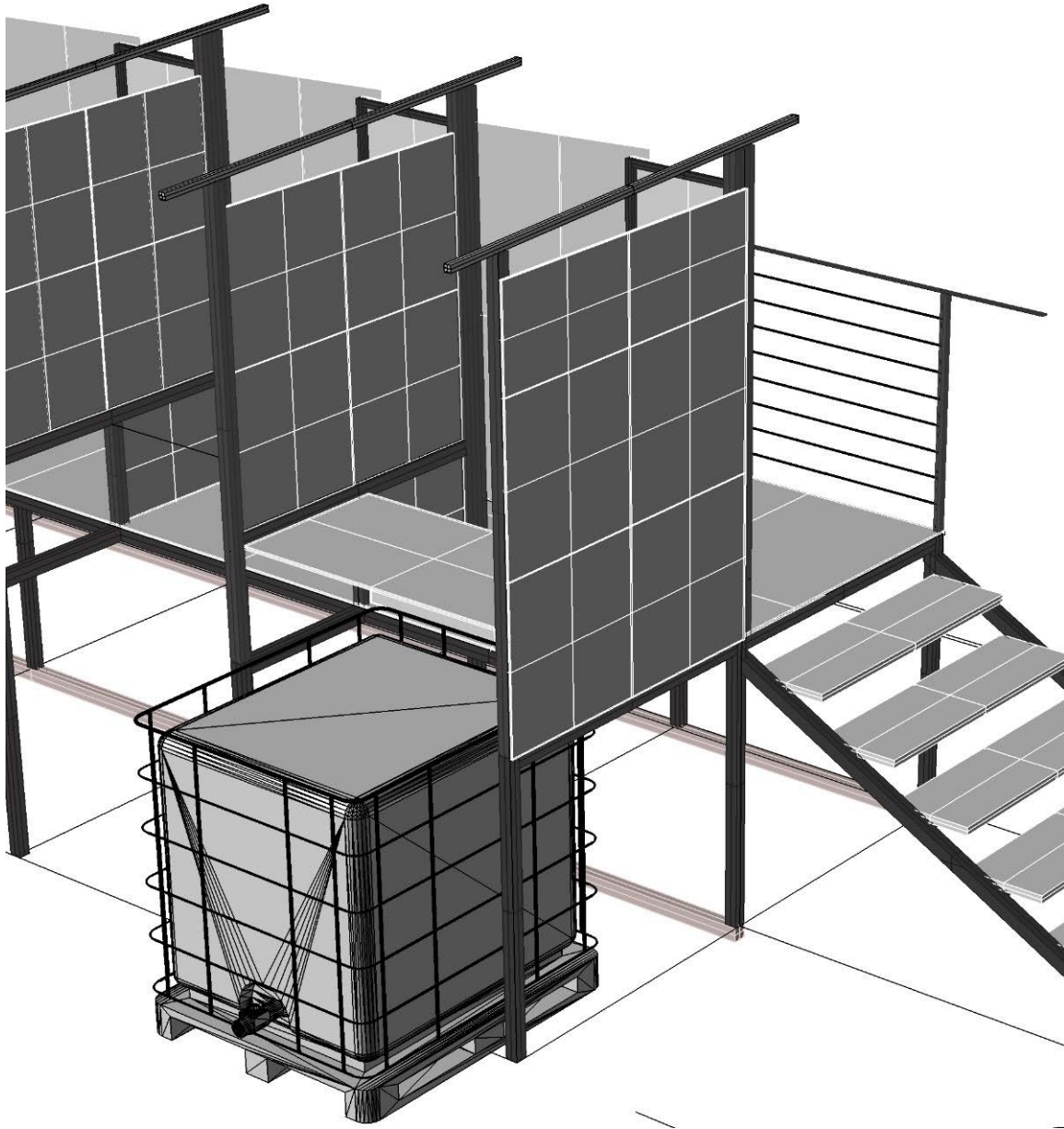
Structure: Cubicle toilets constructed from robust modular units (timber or other durable, reusable materials).

Privacy & Hygiene: Each unit includes a toilet seat with a solids/liquids diverter, toilet paper, hand sanitiser, and signage.

2.2 Waste Catchment and Processing

Solids Capture:

Human solids are deposited into 1000L IBC (Intermediate Bulk Container) tanks placed below or behind the toilet units. These IBCs act as the primary composting vessels.



Microbial Breakdown:

Each IBC is pre-inoculated with a microbial composting mix (a blend of thermophilic bacteria, fungi, and enzymes) that accelerates the breakdown of organic waste. The process converts solids to gas (primarily CO₂ and water vapour) and compostable material.

Ventilation:

Each IBC has a vent stack with fly mesh and activated carbon filters to mitigate odours and support aerobic decomposition.

Carbon Cover Material:

Users are instructed to add sawdust or mulch after use to maintain optimal carbon-to-nitrogen ratio and minimise odour.

2.3 Liquid Separation & Disposal

**Urine & Leachate Diversion:**

A built-in diverter separates liquids from solids. Liquids (urine and leachate from compost) are gravity-fed to a secondary sealed holding tank.

Disposal of Liquids:

Collected liquids are either:

- Pumped out by a licensed waste disposal contractor; or
- Treated on-site in greywater treatment system (subject to separate council approval).

3. Post-Event Waste Management

3.1 Compost Maturation

After the event, partially composted solids are contained within the IBC's to allow the compost breakdown process to continue. The IBC's & facilities will be stored onsite at the Stonelands Road property between events and will be located above the recorded high-water line to ensure no risk of flooding should occur.

The compost is stored for up to 12 months to ensure full pathogen destruction and breakdown per Australian Standard AS 4454.

Final compost is used for non-food agricultural purposes or native revegetation.

3.2 Liquid Waste

All liquid waste is removed by a licensed waste contractor and disposed of at a council-approved sewage facility, until such time as an onsite waste water treatment or absorption trenches can be established at the venue and approved by council for use.

4. Benefits of Composting Toilets

- **Environmental:** No chemicals, low water use, and reduced pollution risk.
- **Odour-Free:** Proper ventilation and carbon additives ensure user comfort.
- **Sustainability:** Replaces high-emission, single-use portaloos.
- **Circular Economy:** Compostable waste becomes a usable resource.

5. Compliance & Risk Management

Risk	Mitigation
Odour	Ventilation, carbon cover, and proper microbial balance
Overflow	Sufficient storage capacity, daily inspections
Contamination	Separate containers for liquids, signage, trained staff
Pest/Vermin	Sealed systems, fly mesh, regular monitoring
Disposal Breach	Contracted liquid waste disposal; compost reused only per AS 4454

6. Capacity Planning

For a 5-day event of 8,000 patrons:

- Toilet Ratio: 1 toilet per 60 patrons = ~134 units
- Estimated Solid Waste: ~200g/person/day = ~8 tonnes over the event
- Liquid Waste: ~1L/person/day = ~40,000L

System designed with redundancy: >100,000L solid and liquid capacity combined.

NOTE: Events will be resourced as required based on expected patron numbers at a ratio of 1 toilet per 60 patrons.

Events will feature a combination of Chemical Based Port-a-loo toilets with Composting toilets introduced to supplement toilet resources, to ensure adequate toilet numbers for the expected crowd size.

7. Case Studies

Boom Festival (Portugal)

Entirely waterless, composting toilet system for 30,000+ patrons.
Similar IBC-style bio-composters with urine diversion.
Highly praised for comfort, zero odour, and sustainability.

Pitch Festival (Ararat, VIC, Australia)

Uses composting toilets for majority of patrons (~15,000).
Managed by eco-toilet contractor “Natural Event”.
Waste is composted and reused in local agriculture.

Strawberry Fields Festival (Tocumwal, NSW, Australia)

Uses composting toilets for majority of patrons (~15,000).
Managed by eco-toilet contractor “Natural Event”.
Waste is composted and reused in local agriculture.

Mushroom Valley Festival (Whitsundays, QLD, Australia)

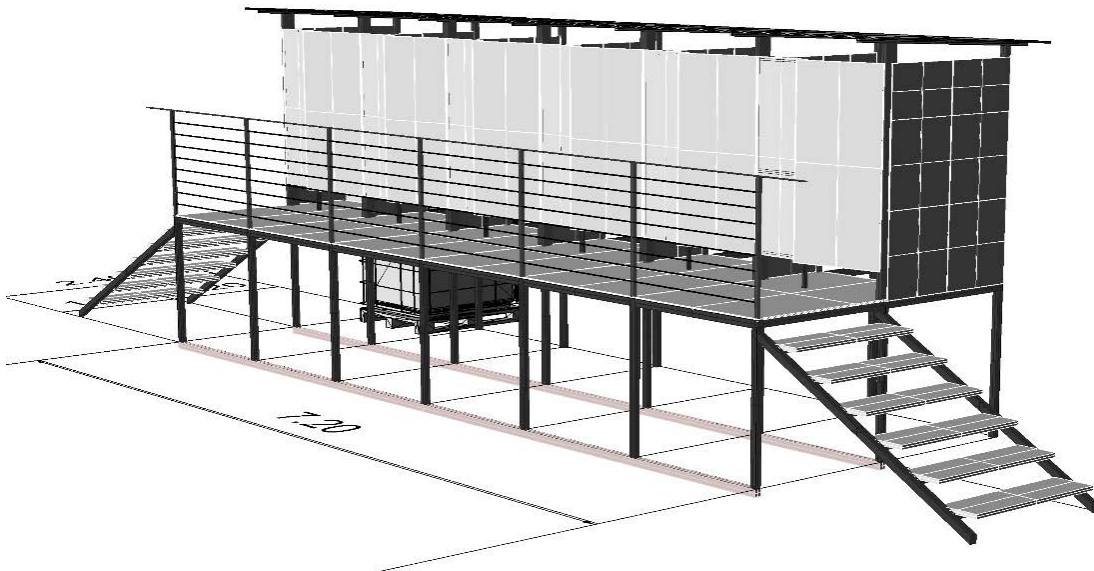
Uses composting toilets for majority of patrons (~5,000).
Managed by event operators
Waste is composted and reused in local agriculture.

8. Conclusion

The proposed composting toilet system is:

- Environmentally superior to chemical portaloos.
- Scalable and hygienic.
- Supported by global festival precedents.
- Compliant with relevant environmental and health standards when properly managed.
- More efficient in terms of water usage & transport needs
- Is more appropriate for the high demand environment of a multi day event with more capacity and less smell.
- Easier to keep clean compared to standard port-a-loo toilets

We respectfully request council's approval to use this system to supplement the use of conventional chemical based portable event toilets for the Rabbits Eat Lettuce festival at Stonelands QLD.



Appendix: Compost Toilet System Diagram

Below is a diagram showing the structure of the compost toilet system with solids and liquids separation.

Waste Management Plan & Composting Toilet System Description

Project: Rabbits Eat Lettuce Festival

Prepared for: Southern Downs Regional Council

Date: July 2025

1 Overview

Rabbits Eat Lettuce proposes the use of a composting toilet system as a sustainable and environmentally alternative

- Minimize environmental impact.
- Reduce reliance on single use plastic and chemicals.
- Support our commitment to sustainable event operations.
- Be aligned with global best practices in green event management.

2 System Description

2.1 Toilet Design

Type: Non-flushing composting toilets.

Structure: Cubic toilets constructed from robust modular units (timber or other durable, reusable materials).

Privacy & Hygiene: Each unit includes a toilet seat with solids/liquids diverter, toilet paper, hand-sanitizer, and signage [to be added] converts the breakdown of organic waste—primarily CO₂ and water vapour) and compostable material.

Ventilation: Each IBC has a vent stack with mesh and activated carbon filters to mitigate odours and support aerobic decomposition.

Carbon Cover Material: Users are instructed to add sawdust (or mulch) after use to maintain optimal carbon-to-nitrogen ratio and minimize odour.

2.5 Liquid Separation & Disposal

A built-in diverter separates liquids from solids. Liquids (urine and leachate from compost) are gravity-fed to a secondary 1000 L. Seal

Disposal of Liquids: either pumped out by a licensed waste disposal contractor or

treated on-site in a mobile greywater treatment system (subject to separate council approval).

