

To: Department of Planning, Housing and Infrastructure (DPHI)

Re: Submission of Objection – Ravensworth Composting Facility Modification 3 (SSD-9418-Mod-3)

Subject: Objection to Proposed Throughput Increase and Expanded FOGO/C&I Receival

Introduction

I am writing to formally object to the proposed Modification 3 for the Ravensworth Composting Facility (SSD-9418). While the diversion of organic waste from landfill is a critical component of NSW's circular economy targets, the proposed increase in throughput and the expanded receival of Food Organics and Garden Organics (FOGO) alongside Commercial and Industrial (C&I) waste streams present significant, unmitigated risks.

Transitioning a facility to handle larger volumes of highly putrescible waste fundamentally changes its risk profile. The modification should be rejected unless a comprehensive overhaul of the facility's environmental controls is mandated.

1. Unacceptable Odour Emissions and Air Quality Impacts

FOGO and C&I organic streams possess a significantly higher putrescible content compared to standard green waste or previously approved streams. This leads to a rapid generation of volatile organic compounds (VOCs) and anaerobic conditions if not meticulously managed.

- **Inadequate Processing Infrastructure:** Open windrow composting, or partially enclosed receival, is wholly inadequate for high-volume FOGO processing. The increase in throughput necessitates fully enclosed receival halls operating under strict negative pressure, coupled with biofiltration systems designed specifically for the peak ammonia and hydrogen sulphide loads typical of FOGO decomposition.
- **Meteorological Vulnerability:** The Hunter Valley experiences distinct inversion layers and prevailing wind conditions that can trap and transport odours over considerable distances. An increase in putrescible mass without corresponding upgrades to active, enclosed aeration infrastructure will inevitably result in unacceptable odour impacts on surrounding receptors.

2. Leachate Management and Groundwater Contamination Risks

The biological degradation of food waste generates a substantially higher volume of leachate with severely elevated Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), and nutrient loads (particularly nitrogen and phosphorus) compared to green waste.

- **System Capacity:** The existing leachate and stormwater management infrastructure must be scrutinized. A mere increase in throughput calculations is insufficient; the facility must demonstrate that the existing basin liners, retention times, and aeration capacities are engineered to handle the concentrated chemical profile of FOGO leachate, particularly during extended wet weather events.
- **Spill and Runoff Risk:** Any failure in the containment system risks catastrophic contamination of local surface water and groundwater systems in the surrounding Ravensworth environment.

3. Physical Contamination and Microplastics in the Local Environment

Municipal FOGO and C&I streams notoriously suffer from high physical contamination rates, primarily soft plastics, hard plastics, and glass.

- **Compost Quality and End-Use:** Given that the primary end-use for this compost is the rehabilitation of the AGL Macquarie void lands, introducing highly contaminated feedstocks risks permanently polluting the rehabilitation site with microplastics and glass shards.
- **Decontamination Shortfalls:** The modification must not be approved without the implementation of advanced, multi-stage mechanical separation infrastructure (such as air classifiers, trommels, and optical sorters) on the front-end receipt and back-end refinement processes. Standard visual inspection and basic screening are entirely insufficient for municipal FOGO.

4. Increased Heavy Vehicle Traffic and Infrastructure Wear

Increasing the facility's throughput will require a proportional, if not exponential, increase in heavy vehicle movements along Lemington Road and the New England Highway.

- **Cumulative Impact:** The regional road network is already heavily burdened by mining and industrial traffic. The addition of constant, heavy waste-haulage vehicles poses an increased risk to road safety, accelerates the degradation of road surfaces, and increases diesel particulate emissions.
- **Biosecurity and Spillage:** Increased transport of wet, putrescible FOGO increases the risk of road spillage and leachate leakage from haulage vehicles, requiring stringent transport protocols that have not been adequately detailed.

5. Fire Risk and Stockpile Management

The exothermic nature of composting, combined with larger required stockpile volumes to accommodate increased throughput, severely escalates the risk of spontaneous combustion. High-volume FOGO processing requires strict mass balance and

residence time controls. The proponent must demonstrate that pile heights, spacing for emergency vehicle access, and active temperature monitoring systems meet the latest Fire and Rescue NSW guidelines for organic waste facilities.

Conclusion

The Ravensworth Composting Facility Modification 3 represents a significant escalation in operational intensity and environmental risk. Processing large volumes of putrescible municipal FOGO and C&I waste requires advanced, enclosed, and highly engineered infrastructure, not simply an administrative increase to a facility originally designed for lower-risk organics.

Until the proponent can demonstrate that the facility will be upgraded with fully enclosed negative-pressure receipt, advanced processing technologies and advanced chemical leachate treatment, and rigorous decontamination screening, this modification poses an unacceptable risk to the environment and should be refused.

Sincerely,