

Appendix 2: Waste Management Plan:

1. Purpose

This Waste Management Plan (WMP) outlines how waste generated by the proposed small-scale brewery and distribution use will be managed to ensure environmental protection, compliance with water catchment protection objectives, and consistency with applicable planning and environmental standards.

2. Scope of Waste Generation

The proposed operation will generate the following waste streams:

Waste Type	Description	Estimated Quantity	Frequency
Spent grain and yeast	By-product from brewing process	~500 kg/week	Weekly
Cleaning waste	Residual cleaning fluids from tanks and equipment	Minimal volume (biodegradable products only)	After each brew session
General refuse	Packaging, paper/cardboard, admin-related waste	< 1 wheelie bin/week	Weekly
Recyclables	Cardboard, cans, plastics (office and packaging only)	< 1 recycling bin/week	Weekly

3. Waste Handling and Storage

3.1 Spent Grain and Yeast

- Collected immediately after brewing into sealed, animal-feed safe containers.
- Stored in a dedicated area within the building (or covered external space on hardstand) to prevent stormwater contact or vermin access.
- Removed from site at least once per week by the landowner or third-party farmer for reuse as livestock feed.
- No storage for more than 7 days. No composting or on-site disposal permitted.

3.2 Cleaning Wastewater

- All cleaning agents shall be biodegradable and food-grade (e.g. PBW, Star San).
- Cleaning activities occur over bunded areas draining to the approved on-site effluent system.

- Wastewater is treated via a 3000L buffer tank and thereafter disposed of in accordance with the approved Wastewater Management system
- No cleaning waste is to be discharged to stormwater or land surface.

3.3 General Refuse and Recyclables

- Waste segregated at source into clearly labelled bins.
- Bins to be kept in a secure, screened area to prevent wildlife or windblown litter.
- Collection via standard wheelie bins (240L), removed by the landowner or private waste contractor on a weekly basis.
- All waste disposal will comply with relevant local and state waste regulations.

4. Environmental Protection Measures

- No waste is permitted to enter natural drainage lines, stormwater, or the surrounding environment.
- All waste storage areas to be hardstand or bunded with weather protection as needed.
- Wastewater management systems to be monitored regularly and maintained per manufacturer and approval conditions.
- Any spillages to be cleaned immediately using absorbent materials – no hosing to ground or drains.

5. Monitoring and Record-Keeping

- Chemical Safety Data Sheets (SDS) for all cleaning products will be kept on-site.
- Annual review of waste practices to ensure continued compliance and minimise waste generation.

6. Responsibilities

Role	Responsibility
Business Operator (Chris Hogg)	Overall responsibility for implementing and maintaining the WMP
On-site Staff	Segregation, handling, and proper storage of all waste streams
Waste Contractors/Farmers	Timely removal and correct reuse/disposal of collected waste

7. Conclusion

This Waste Management Plan ensures that all waste generated by the proposed small-scale brewing operation is managed in a manner that:

- Prevents environmental harm;
- Complies with planning and environmental policies;
- Supports sustainable practices, including reuse of organic by-products;
- Aligns with the City of Kalamunda's strategic objectives and the Middle Helena Catchment Strategy.