



**BANKSIA ROAD ORGANICS
PROCESSING FACILITY**

**ANNUAL ENVIRONMENTAL
REPORT**

1st April 2016 – 31st March 2017

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1. INTRODUCTION

Bunbury-Harvey Regional Council (BHRC) provides personnel and equipment to manage, supervise, operate and maintain the Banksia Road Organics Processing Facility (BROPF).

This facility processes Food Organics, Garden Organics and Green waste collected from the councils of the Wellington Regional Group (City of Bunbury, Shires of Harvey, Dardanup, Capel, Collie and Donnybrook-Balingup).

The BROPF began operating in July 2013 when it was granted the first Environmental Protection Licence from the Department of Environment. The facility is located within the Dardanup Putrescible Landfill Site that is licenced as a Category 64 Class II landfill.

Department of Environment Licence L8746/2013/1

This licence was issued 22nd November 2015 and expires on 14th July 2018.

2. SITE INFORMATION

2.1 LOCATION

BROPF is located at Lot 81 Marginata Close CROOKED BROOK in the Shire of Dardanup.

Shire of Dardanup has renamed the road the Banksia Road Organics Processing Facility was on as it was a private access road that led to the facility. The facility has not changed location since starting operation.

The name 'Marginata Close' was approved on 11 May 2015 in conjunction with the subdivision of Lot 1 Banksia Road (parent lot), which created the road reserve that now provides access to Lot 81 Marginata Close (this previously was a private access way). Banksia Road, which is the connector road to Marginata Close, has not changed.

See Appendix 1: Maps

2.2 SURROUNDING LAND USE

The Banksia Road Compost Facility is located approximately 220 Kilometres South of Perth and approximately 20 km south of Bunbury in the local government area of the Shire of Dardanup.

The Premises is located on the Swan Coastal Plain and is an existing licenced premises, being the site of the Shire of Dardanup landfill.

Other prescribed activities within proximity to the premises include:

- Dardanup wastewater treatment plant
- Transpacific Class II landfill, located on Banksia Rd
- Depiazzi soil mixes and manufactures

There are two commercial receptors within 1000 metres of the site which are:

- A regional landfill
- A waste water treatment plant.

The closest residence receptor is approximately 1.7 km to the south-west.

2.3 METHOD OF OPERATION

The site currently operates as an Organics Processing Facility and under the terms of the current Licence is permitted to accept the following wastes:

- Mixed food/putrescible and vegetable food waste
- Greenwaste

Greenwaste from surrounding councils is accepted and organic waste from the three bin system from the City of Bunbury, Shires of Capel, Collie and Donnybrook-Balingup are also accepted and processed through the facility.

A Mobile Aerated Floor (MAF) system is used throughout the facility for the processing of incoming waste. This system pushes air through the compost material rather than turning the material through air.

This system is designed to work in open areas and is only operated by trained personnel.

3. GROUND WATER USE

BROPF is located on the edge of the Swan Coastal Plain in the Shire of Dardanup. The sub-surface hydrology comprises of clay sediments of the Quaternary and Yoganup /Guildford Formations that form a protective barrier over the deeper and confined Leederville Formation which contains high quality groundwater.

Lundstrom Environmental Consultants (1998) indicated in a study of the adjacent landfill site that previous investigations had confirmed the presence of the permanent, confined aquifer (Leederville Formation) at levels that vary between 35m and 40m below ground level. This aquifer is separated from the surface sediments by a clay/shale layer that occurs at depths of 20m to 30m and is between 10m and 20m thick. This water has an upward hydrostatic head resulting in an upward pressure exerted on the base of the confined layer. There is no evidence of significant quantities of shallow, unconfined groundwater.

The site is located in the Ferguson River catchment, close to the boundary of the Crooked Brook catchment. Surface water runoff is collected in the catchment pond on site and reused back onto the compost piles.

4. ODOUR CONTROL

Mobile Aerated Floor (MAF) is a compost aeration system that uses an electrically driven and computer controlled fan that pushes air through movable perforated pipes underneath the compost pile. It allows you to control oxygen levels minute to minute, rather than day by day with traditional compost turners.

Minimum odour emissions are the key benefit of the MAF composting system therefore on a day to day basis further odour controls are not required.

5. SCOPE OF WORKS

The BHRC operates under the *Environmental Protection Act 1986*, Licence No. L8746/2013/1, this licence is administered by the Department of Environmental Regulation. This Annual Environmental Report provides a review of environmental monitoring and performance of the BHRC and assesses compliance with licence conditions, for the period 1 April 2016 to 31 March 2017.

6. COMPLIANCE

It is a requirement of the licence agreement that the BHRC supply this Annual Environment Report within 28 calendar days after the end of the annual period. The report is to contain the information as listed in Table 3.2.1.

Table 3.2.1: Annual environmental report

Condition or table (if relevant)	Parameter	Format or form'
Table 2.2.1	Inputs and outputs	None specified
Table 2.3.1	Process monitoring data	None specified
3.1.3	Compliance	Annual Audit Compliance Report (AACR)
3.1.4	Complaints summary	None specified

3.2.2 The licensee shall ensure that the Annual Environmental Report also contains an assessment of the information contains within the report against previous monitoring results and Licence limits.

6.1 Inputs and Outputs

BHRC will undertake the monitoring of inputs and outputs according to the specifications in

Table 2.2.1: Monitoring of Inputs and Outputs.

Input / Output	Parameter	Units	Averaging period	Frequency
Mass of each input listed in Table 1.3.1	Waste type as detailed in Table 1.3.1	Tonnes	Annual Period	Each load arriving at the Premises

For the reporting year, BHRC has accepted 13,417 tonnes of waste which is within the parameters of the licencing agreement. Accordingly this is 1,938 tonne more from last years reported amount.

During the same period BHRC had sales totalling 3,712 tonnes which was 1,710 tonnes less than last year and 1,561 tonne of contaminated product was removed from site and disposed of accordingly.

See Appendix 2: Inputs and Outputs

6.2 Process Monitoring

Monitoring is undertaken in accordance with *Table 2.3.1: Process Monitoring.*

Monitoring point reference	Process description	Parameter	Units	Frequency	Method
Compost windrows	Composting	Temperature	°C	Twice daily	None specified
Final compost volume	Completion of composting and prior to sale or distribution to the public	Weight produced	Tonnes	Continuous	None specified
Final compost quality	Completion of composting and prior to sale or distribution to the public	Faecal coliforms	MPN per gram (dry weight)	Each batch	As specified in AS 4454
		<i>Salmonella spp.</i>	N/A		
		<i>Arsenic</i>	Mg/kg (dry weight basis)		
		Cadmium			
		Chromium			
		Copper			
		Lead			
		Mercury			
		Nickel			
		Selenium			
		Zinc			
		DDT/DDD/DDE			
		Aldrin, dieldrin, Chlordane, Heptachlor, HCB, Lindane or BHC			
		PCB's			
		Glass, metal and rigid plastics			
Plastics – light and flexible or film					

Note 1: Twice daily monitoring is to be undertaken at least five hours apart.

See Appendix 3: Daily Temperature Readings
See Appendix 4: Testing Results

6.3 Compliance

Appendix 5 AACR attached

6.4 Complaints Summary

There were no complaints during this period.