



Licence

Environmental Protection Act 1986, Part V

Licensee: City of Wanneroo

Licence: L8403/2009/3

Registered office: City of Wanneroo
23 Dundobar Road
WANNEROO WA 6065

Premises address: Wangara Recycling Centre
Lot 9005 on Plan 73863 Motivation Drive
WANGARA WA 6946 as depicted in Schedule 1

Issue date: Thursday, 17 December 2015

Commencement date: Thursday, 24 December 2015

Expiry date: Tuesday, 23 December 2025

Prescribed premises category

Schedule 1 of the *Environmental Protection Regulations 1987*

| Category number | Category description | Category production or design capacity | Approved Premises production or design capacity |
|-----------------|--|--|---|
| 67A | Compost manufacturing and soil blending: premises on which organic material (excluding silage) or waste is stored pending processing, mixing, drying or composting to produce commercial quantities of compost or blended soils. | 1 000 tonnes or more per year | 50 000 tonnes per annual period |

Conditions

This Licence is subject to the conditions set out in the attached pages.

Date signed: 17 December 2015

.....

Stephen Checker

MANAGER LICENSING (WASTE INDUSTRIES)

Officer delegated under section 20

of the *Environmental Protection Act 198*



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Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role

The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:

<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.



Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non-payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

Wangara Recycling Centre site was acquired by the City of Wanneroo in 1985, prior to which it was mined for sand. It was historically a municipal waste landfill known as Badgerup Tip, which ceased receiving putrescible waste in 1991. Inert waste continued to be accepted for a number of years and the site was licenced as a class I inert landfill and compost manufacturing/ blending facility (L7225/1997/1). In 2009 the licence was amended and the landfill category removed from the licence.

Residents of the City of Wanneroo and City of Joondalup deliver green waste to the Premises where it is processed into mulch for resale to the public.

Only low-hazard greenwaste is accepted and carted away by contractor and shredded off site, the mulch is then delivered by the contractor as needed. Only 300 cubic metres at a time is stored on a hard stand in a single windrow.

The recommended separation distance for outdoor composting facilities is 150 metres in the Environmental Protection Authority's Guidance Statement No. 3 *Separation Distances between Industrial and Sensitive Land Uses* (June 2005). The area is zoned Industrial and the City of Wanneroo approved the development of light industrial units inside the 150 metres from the premises. The nearest residents (sensitive receptors) in the area are approximately 450 meters north east and 1100 meters to the south.

DER's draft Guidance Statement: *Separation Distances* recommends a separation distance of 2,200 meters between sensitive receptors and premises producing up to 50,000 tonnes of compost per year using turned windrows. Whilst the actual separation distances between the premises and residential receptors are significantly closer, only low-hazard composting activities occur onsite and impacts to the closest receptors are considered manageable through appropriate operational and licence controls.

The depth to groundwater on the premises ranges from 18 to 28.5 meters and the surface geology is considered Tamala limestone (Perth Groundwater Atlas, Department of Water). The nearest surface water body, Little Badgerup Lake, is 800 meters to the north and a sump land (former Environmental Protection Policy (EPP) wetland) about 600 meters to the east. There is a Public Drinking Water Source Area (PDWSA) located 2 kilometres away to the west.

There are Bush Forever areas located 400 meters north and 700 meters to the east. The premises is listed as a contaminated site, *possibly contaminated - investigation required*. This is due to the historical landfill operations.

In the past there were a few complaints received by the Department of Environment Regulation (DER) regarding dust, noise and odour. Operations onsite have now managed to control these issues and there have been no recorded complaints since January 2014.



The DER is in the process of assessing all composting facilities, and will be requiring a gap analysis of all current operations, infrastructure and monitoring requirements.

This Licence is the successor to licence L8403/2009/2 and includes changes to formatting and conditions.

The licences issued for the Premises since 2004 are:

| Instrument log | | |
|----------------|------------|--|
| Instrument | Issued | Description |
| L7225/1997/4 | 2004 | Inert landfill and compost manufacturing licence |
| L7225/1997/5 | 5/12/2005 | Licence amendment – to remove the inert landfill |
| L7225/1997/6 | 10/11/2006 | Licence amendment - to licence conditions |
| L8403/2009/1 | 24/12/2009 | Licence re-issue – new licence number |
| L8403/2009/2 | 09/11/2012 | Licence re-issue |
| L8403/2009/3 | 17/12/2015 | Licence re-issue – new format |

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION



Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986*;

'annual period' means the inclusive period from 1 January until 1 December in the same year;

'AS 4454:2012' means the Australian Standard AS 4454:2012 *Composts, Soil Conditioners and Mulches*;

'AS/NZS 5667.1' means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*;

'AS/NZS 5667.11' means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters*;

'averaging period' means the time over which a limit is measured or a monitoring result is obtained;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Chief Executive Officer
Department Administering the Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

'compost' means an organic product that has undergone controlled aerobic and thermophilic biological transformation through the composting process;

'composting' the process whereby organic materials are microbiologically transformed under controlled aerobic conditions;

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

'green waste' means waste that originates from untreated trees or plants;

'hardstand' means a surface with a permeability of 10^{-9} metres/second or less;

'leachate' means liquid released by or water that has percolated through waste and which contains some of its constituents;

'Licence' means this Licence numbered L8403/2009/3 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;



'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

'pasteurisation' means the process whereby organic materials are treated to significantly reduce the numbers of plant and animal pathogens and plant propagules;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'quarterly' means the 4 inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'six monthly' means the 2 inclusive periods from 1 April to 30 September and 1 October to 31 March in the following year; and,

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 Premises operation

1.2.1 The Licensee shall only accept waste on to the Premises if:

- (a) it is of a type listed in Table 1.3.1; and
- (b) the quantity accepted is below any quantity limit listed in Table 1.2.1; and
- (c) it meets any specification listed in Table 1.2.1.

Table 1.2.1: Waste acceptance

| Waste type | Quantity limit tonnes/ annual period | Specification ¹ |
|-------------|--------------------------------------|----------------------------|
| Green waste | 50,000 | None specified |

Note 1: Additional requirements for the acceptance of controlled waste (including animal effluent or residues; and vegetable and food processing waste) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.2.2 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in condition 1.2.1 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a segregated storage area or container and removed to an appropriately authorised facility as soon as practicable.

1.2.3 The Licensee shall ensure that wastes accepted onto the Premises are only subjected to the processes set out in Table 1.2.2 and in accordance with any process limits described in that Table.



| Table 1.2.2: Processing of materials | | |
|--------------------------------------|---|---|
| Waste type | Process | Process requirements |
| Green waste | Receipt, handling, mulching and storage prior to composting | <p>Waste shall not be stored within 5 metres of the premises boundary.</p> <p>Water sprays shall be used (for the purposes of minimising dust emissions) on any mulchers, shredders, chippers, grinders or other potentially dust-generating equipment used in the processing of greenwaste onsite.</p> <p>Water sprays shall be used as required during the handling and transfer of mulch so that dust emissions are minimised.</p> |
| | Treatment by composting and pasteurisation | <p>i) Windrows shall be turned regularly to ensure aerobic conditions are maintained.</p> <p>ii) Windrows shall not exceed 2.5 metres high, 5 metres wide and 25 metres long.</p> <p>iii) Windrows shall be separated by at least 5 metres of clear ground.</p> |

1.2.4 The Licensee shall ensure that waste is stored and/or contained within infrastructure in accordance with Table 1.2.3 and that the integrity of the containment infrastructure is maintained.

| Table 1.2.3: Containment infrastructure | | |
|---|-------------|-----------------------------|
| Containment area/infrastructure | Material | Infrastructure requirements |
| Waste storage area | Green waste | Hardstand area |
| Composting area | | |

2 Monitoring

2.1.1 The licensee shall ensure that:

- all compost samples are collected and preserved in accordance with AS 4454;
- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
- all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.

2.1.2 The Licensee shall ensure that quarterly monitoring is undertaken at least 45 days apart.

2.2 Monitoring of inputs and outputs

2.2.1 The Licensee shall undertake the monitoring in Table 2.2.1 according to the specifications in that table.



| 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 | m ³ | Annual | Each load arriving at the Premises |
| Mass of each product or waste output listed in Table 1.3.1 | Waste type as detailed in Table 1.3.1 and finished products | | | Each load leaving or rejected from the premises. |

2.3 Ambient environmental quality monitoring

2.3.1 The Licensee shall, once groundwater monitoring bores are installed as per IR3, undertake the monitoring in Table 2.3.1 according to the specifications in that table.

| Table 2.3.1: Monitoring of ambient groundwater quality | | | | |
|--|----------------------------|--------|------------------|---|
| Monitoring point reference and location | Parameter | Units | Averaging period | Frequency |
| Groundwater monitoring bores | Standing water level | m(AHD) | Spot sample | Quarterly for the first year of the groundwater bores being operational and then six monthly. |
| | pH | | | |
| | Biochemical oxygen demand | mg/L | | |
| | Total phosphorus | | | |
| | Total nitrogen | | | |
| | Ammonia nitrogen | | | |
| | Nitrate + nitrite nitrogen | | | |
| | Total dissolved solids | | | |
| | Sodium | | | |
| | Potassium | | | |
| | Calcium | | | |
| | Magnesium | | | |
| | Chloride | | | |
| | Sulphate | | | |
| | Bicarbonate | | | |
| | Aluminium | | | |
| | Arsenic | | | |
| | Beryllium | | | |
| | Cadmium | | | |
| | Chromium | | | |
| | Cobalt | | | |
| | Copper | | | |
| | Iron | | | |
| Lead | | | | |
| Mercury | | | | |
| Manganese | | | | |
| Molybdenum | | | | |
| Nickel | | | | |
| Vanadium | | | | |



| Table 2.3.1: Monitoring of ambient groundwater quality | | | | |
|--|-----------|-------|------------------|-----------|
| Monitoring point reference and location | Parameter | Units | Averaging period | Frequency |
| | Zinc | | | |

3 Improvements

3.1 Improvement program

3.1.1 The Licensee shall complete the improvements in Table 3.1.1 by the date of completion in Table 3.1.1.

| Table 3.1.1: Improvement program | | |
|----------------------------------|---|--------------------|
| Improvement reference | Improvement | Date of completion |
| IR1 | The Licensee shall submit to the CEO an investigation report into whether a stormwater retention basin and/or leachate collection sump is required by undertaking a water balance and risk assessment for the premises. This includes outlining stormwater management onsite and determining whether bunding is required around the asphalt hardstand area to manage run off. | 1 May 2016 |
| IR2 | The Licensee shall submit to the CEO a gap analysis report that compares the current onsite composting processes with the Australian Standard (AS) 4454:2012 Composts, Soil Conditioners and Mulches, Appendix N. | 1 May 2016 |
| IR3 | The Licensee shall reinstate a minimum of three groundwater monitoring bores on the premises to allow for the detection of leachate contamination. At least one bore (control bore) is to be located up hydrological gradient of the activity area and at least two bores (impact bores) located down hydrological gradient of the activity area. The bore installation is to be constructed by a suitably qualified and Australian Drilling Industry Association (W.A. Branch) licensed driller. | 1 June 2016 |

4 Information

4.1 Records

- 4.1.1 All information and records required by the Licence shall:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
 - (c) except for records listed in 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
 - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.



- 4.1.2 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.
- 4.1.3 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

4.2 Reporting

- 4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 32 calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

| Table 4.2.1: Annual Environmental Report | | |
|---|------------------------|---------------------------------------|
| Condition or table (if relevant) | Parameter | Format or form¹ |
| Table 2.2.1 | Inputs and outputs | None specified |
| Table 2.3.1 | Groundwater monitoring | None specified |
| 4.1.2 | Compliance | Annual Audit Compliance Report (AACR) |
| 4.1.3 | Complaints summary | None specified |

Note 1: Forms are in Schedule 2

- 4.2.2 The Licensee shall ensure that the Annual Environmental Report also contains an assessment of the information contained within the report against previous monitoring results.



Schedule 1: Maps

Premises map – Lot 9005 on Plan 73863 Motivation Drive, Wangara.

The Premises is shown in the map below. The pink line depicts the Premises boundary.



LEGEND

| | |
|---|------------------|
| Perth Metropolitan South 15cm Orthomosaic - Landgate 2011 | Road Centrelines |
| Perth Metropolitan Central 15cm Orthomosaic - Landgate 2011 | |
| Perth Metropolitan North 15cm Orthomosaic - Landgate 2011 | |

Scale 1:6642
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

Prepared by: RebeccaGr
Prepared for:
Date: 8/12/2015 3:37:35 PM

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

Government of Western Australia
Department of Environment Regulation
WA Crown Copyright 2012

* Project Data. This data has not been quality assured. Please contact map author for details.



Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

LICENCE DETAILS

| | |
|-------------------------------------|------------------------------|
| Licence Number: L8403/2009/3 | Licence File Number: DEC1128 |
| Company Name: Trading as: | ABN: |
| Reporting period: _____ to _____ | |

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)

Yes Please proceed to Section C

No Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each Licence condition that was not complied with.

| | |
|--|-----------------------------|
| a) Licence condition not complied with: | |
| | |
| b) Date(s) when the non compliance occurred, if applicable: | |
| | |
| c) Was this non compliance reported to DER?: | |
| <input type="checkbox"/> Yes <input type="checkbox"/> Reported to DER verbally Date _____ <input type="checkbox"/> Reported to DER in writing Date _____ | <input type="checkbox"/> No |
| d) Has DER taken, or finalised any action in relation to the non compliance?: | |
| | |
| e) Summary of particulars of the non compliance, and what was the environmental impact: | |
| | |
| f) If relevant, the precise location where the non compliance occurred (attach map or diagram): | |
| | |
| g) Cause of non compliance: | |
| | |
| h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance: | |
| | |
| i) Action taken or that will be taken to prevent recurrence of the non compliance: | |
| | |

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

| If the licence holder is | | The Annual Audit Compliance Report must be signed and certified: |
|--|--|--|
| An individual | <input type="checkbox"/> <input type="checkbox"/> | by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf. |
| A firm or other unincorporated company | <input type="checkbox"/> <input type="checkbox"/> | by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation. |
| A corporation | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation. |
| A public authority (other than a local government) | <input type="checkbox"/> <input type="checkbox"/> | by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation. |
| a local government | <input type="checkbox"/> <input type="checkbox"/> | by the chief executive officer of the licensee; or by affixing the seal of the local government. |

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____



DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)



Decision Document

Environmental Protection Act 1986, Part V

Proponent: City of Wanneroo

Licence: L8403/2009/3

Registered office: City of Wanneroo
23 Dundobar Road
WANNEROO WA 6065

Premises address: Wangara Recycling Centre
Lot 9005 on Plan 73863 Motivation Drive
WANGARA WA 6946

Issue date: Thursday, 17 December 2015

Commencement date: Thursday, 24 December 2015

Expiry date: Tuesday, 23 December 2025

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER) has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by: Rebecca Griffiths
Licensing Officer

Decision Document authorised by: Stephen Checker
Delegated Officer



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1 Purpose of this Document

This decision document explains how the application has been assessed and determined. It provides a record of the decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to the assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

2 Administrative summary

| Administrative details | | |
|---|--|---|
| Application type | Works Approval <input type="checkbox"/> | New Licence <input checked="" type="checkbox"/> |
| | Licence amendment <input type="checkbox"/> | Works Approval amendment <input type="checkbox"/> |
| Activities that cause the premises to become prescribed premises | Category number(s) | Assessed design capacity |
| | 67A | 50,000 tonnes per year |
| Application verified | Date: 05/10/2015 | |
| Application fee paid | Date: 27/10/2015 | |
| Works Approval has been complied with | Yes <input type="checkbox"/> | No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Compliance Certificate received | Yes <input type="checkbox"/> | No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Commercial-in-confidence claim | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Commercial-in-confidence claim outcome | N/A | |
| Is the proposal a Major Resource Project? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| | | |
| Is the proposal subject to Ministerial Conditions? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| | | Ministerial statement No: |



| | | |
|--|---|---|
| | | EPA Report No: |
| Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Is the Premises within an Environmental Protection Policy (EPP) Area Environmental Protection Swan Coastal Plain Lakes Policy 1992 | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | |
| Is the Premises subject to any EPP requirements? | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |

3 Executive summary of proposal and assessment

Wangara Recycling Centre site was acquired by the City of Wanneroo in 1985, prior to which it was mined for sand. It was historically a municipal waste landfill known as Badgerup Tip, which ceased receiving putrescible waste in 1991. Inert waste continued to be accepted for a number of years and the site was licenced as a class I inert landfill and compost manufacturing/ blending facility (L7225/1997/1). In 2009 the licence was amended and the landfill category removed from the licence.

Residents of the City of Wanneroo and City of Joondalup deliver green waste to the Premises where it is processed into mulch for resale to the public.

Only low-hazard greenwaste is accepted and carted away by contractor and shredded off site, the mulch is then delivered by the contractor as needed. Only 300 cubic metres at a time is stored on a hard stand in a single windrow.

The recommended separation distance for outdoor composting facilities is 150 metres in the Environmental Protection Authority's Guidance Statement No. 3 *Separation Distances between Industrial and Sensitive Land Uses* (June 2005). The area is zoned Industrial and the City of Wanneroo approved the development of light industrial units inside the 150 metres from the premises. The nearest residents (sensitive receptors) in the area are approximately 450 metres north east and 1100 meters to the south.

DER's draft Guidance Statement: *Separation Distances* recommends a separation distance of 2,200 meters between sensitive receptors and premises producing up to 50,000 tonnes of compost per year using turned windrows. Whilst the actual separation distances between the premises and residential receptors are significantly closer, only low-hazard composting activities occur onsite and impacts to the closest receptors are considered manageable through appropriate operational and licence controls.

The depth to groundwater on the premises ranges from 18 to 28.5 metres and the surface geology is considered Tamala limestone (Perth Groundwater Atlas, Department of Water). The nearest surface water body, Little Badgerup Lake, is 800 metres to the north and a sump land (former Environmental Protection Policy (EPP) wetland) about 600 metres to the east. There is a Public Drinking Water Source Area (PDWSA) located 2 kilometres away to the west.



There are Bush Forever areas located 400 metres north and 700 metres to the east. The premises is listed as a contaminated site, *possibly contaminated - investigation required*. This is due to the historical landfill operations.

In the past there were a few complaints received by the Department of Environment Regulation (DER) regarding dust, noise and odour. Operations onsite have now managed to control these issues and there have been no recorded complaints since January 2014.

DER is in the process of assessing all composting facilities, and will be requiring a gap analysis of all current operations, infrastructure and monitoring requirements.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

| DECISION TABLE | | | |
|----------------------------------|---|--|---|
| Works Approval / Licence section | Condition number W = Works Approval L = Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| General conditions | L3.1.1 | <p><u>Emission Description</u> <i>Emission:</i> Stormwater contaminated with leachate from composting operations. <i>Impact:</i> Contamination of surrounding land and surface water drainage systems. Potential impacts on ecology of surface water from the addition of nutrients and heavy metals. The nearest surface water body, Little Badgerup Lake, is 800 m to the north and a sump land (former EPP wetland) about 600 m to the east. The depth to groundwater on the premises ranges from 18 to 28.5 meters and the surface geology is considered Tamala limestone (Perth Groundwater Atlas, Department of Water). <i>Controls:</i> Some parts of the premises contain an asphalt hardstand and evaporation or infiltration into the ground. Most stockpiles are located on the asphalt hardstand. The proponent only accepts green waste with no additives to reduce the risk.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Condition 3.1.1 Improvement program IR1 has been added to the licence to require the licensee operator to determine if a retention basin and bunding is required around the asphalt hardstand area to capture runoff from the premises operations as part of the</p> | <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p> <p>General provisions of the <i>Environmental Protection Act 1986</i></p> |



| DECISION TABLE | | | |
|----------------------------------|--|--|---------------------|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | <p>investigation report into surface water management on site.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> | |
| Premises operation | L1.3.1 - L1.3.4 L3.1.2 - L3.1.1 | <p><u>Emission Description</u> <i>Emission:</i> Generation of leachate from mulching and composting activities. <i>Impact:</i> Contamination of surrounding land. Potential impacts on ecology of surface water and groundwater from the additional nutrients with potential for offsite migration. Groundwater monitoring was not a requirement of the previous licence. Therefore, the impact of the operations on groundwater is unknown. <i>Controls:</i> Composting occurring on mainly asphalt hardstand areas or bare ground, but the run off from these areas is not captured. Only green waste is accepted to site and there are no additives to the process. The site was historically used as a municipal and inert landfill.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Likely <i>Risk Rating:</i> High</p> <p><u>Regulatory Controls</u> Condition 1.3.1 has been included on the licence to limit the types and quantities of waste to be accepted at the premises. Only wastes that have been assessed by DER and determined that they can be adequately managed by the occupier's infrastructure and process controls will be approved. The Wangara Recycling Centre only accepts green waste at the premises.</p> | |



| DECISION TABLE | | | |
|---|---|--|----------------------------|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | <p>Condition 1.2.2 requires the occupier to remove any waste to an appropriately licenced facility if it does not meet the requirements of condition 1.3.1. Any additional wastes have not been authorised or considered in the assessment for the premises controls. This condition mitigates the potential leachate risk of runoff from stockpiling non-conforming waste.</p> <p>Condition 1.2.3 replaces condition 6 of the previous licence and has been included to specify the process requirements for each waste type, which correspond with the occupier's process as assessed in IR2.</p> <p>Condition 1.2.3 includes the operation of water sprays on plant equipment replacing condition 20 of the previous licence.</p> <p>Condition 1.2.4 outlines the requirements for containment infrastructure on the premises. This assists in managing the risk leachate run off from operations.</p> <p>Condition 2.3.1 specifies groundwater monitoring to be undertaken onsite. The premises was formerly a municipal and inert landfill. Leachate and runoff-generating activities onsite have the potential to mobilise contaminants in waste historically landfilled at the premises. The licence therefore requires groundwater monitoring for a range of metals and other contaminants not normally associated with greenwaste composting.</p> <p>Condition 3.1.1 (improvement condition IR1) has been added to the licence to require the proponent to conduct an investigation into whether a retention basin is required by undertaking a water balance and risk assessment for the premises.</p> <p>Conditions 16, 17 and 18 of the previous licence have been removed. It required fencing to be maintained and inspected. This related to the historical landfill operations that occurred onsite that are no longer operational and therefore no longer required.</p> | |



| DECISION TABLE | | | |
|----------------------------------|--|--|---------------------------|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | <p>Condition 21 did not allow the burning of green waste in the previous licence and has been removed. It was originally a standard landfill condition and the landfill is no longer operational on site, therefore this condition is not required. Burning of green waste on site can be managed under the provisions of the <i>Environmental Protection (Unauthorised Discharge) Regulations 2004</i>.</p> <p>Conditions 22 and 23 of the previous licence have been removed as they related to the historical landfill operations that occurred onsite that is no longer operational.</p> <p>Condition 3.1.1, Improvement Condition IR2, has been added to the licence to require CEO a gap analysis report that compares the current onsite composting processes with the Australian Standards (AS) 4454:2012 Composts, Soil Conditioners and Mulches, Appendix N. This allows DER to identify any issues and risks with the existing process.</p> <p>Condition 3.1.1, Improvement Condition IR3, has been added to the licence to require existing bores to be reinstated as it is understood that there are existing bores around the premises but are not fully functional and are not being used to determine the risk. The premises was formerly a municipal and inert landfill and therefore leachate and runoff-generating activities onsite have the potential to mobilise contaminants in waste historically landfilled at the premises.</p> <p><u>Residual Risk</u> <i>Consequence: Moderate</i> <i>Likelihood: Likely</i> <i>Risk Rating: High</i></p> | |
| Fugitive emissions | N/A | <p><u>Emission Description</u> <i>Emission: Fugitive dust emissions generated from compost processing including</i></p> | General provisions of the |



| DECISION TABLE | | | |
|----------------------------------|--|---|--|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | <p>grinding of wastes and turning windrows, as well as loading/unloading of wastes and products and general onsite vehicle movements. <i>Impact:</i> Potential for nuisance dust complaints and reduced local air quality. Emissions are expected to be minor and localised. Light industrial units have been built 150 m from the premises. The nearest residents in the area are approximately 450 m north east. <i>Controls:</i> Windrows are wetted down as required which assists in maintaining moisture levels and minimisation of dust generation. A sprinkler and hose system is used on the machinery when grinding and shredding of green waste occurs to minimise dust.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Fugitive emissions of dust can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i>. This replaces condition 7 and 19 and 20 of the previous licence. Condition 19 previously outlined requirements in relation to the landfill operations which no longer occur on site. No specified conditions for fugitive emissions have been included on this licence.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> | <i>Environmental Protection Act 1986</i> |
| Odour | N/A | <p><u>Emission Description</u> <i>Emission:</i> Odours generated from composting processes. Odour may also occur from water pooling around the composting process.</p> | |



| DECISION TABLE | | | |
|----------------------------------|--|--|--|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | <p><i>Impact:</i> Potential for nuisance odour complaints. The nearest odour sensitive receptors (residents) are located approximately 400 m from the premises. Light industry offices are located approximately 150 m from the premises.</p> <p><i>Controls:</i> Only green waste is accepted to the premises. Stockpiles are turned approximately once a week to maintain aeration, and watered to maintain moisture.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Odour emissions can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i>. No specified conditions for odour emissions have been included on this licence.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> | |
| Noise | N/A | <p><u>Emission Description</u> <i>Emission:</i> Unreasonable noise emissions generated from onsite activities and vehicle movements.</p> <p><i>Impact:</i> Potential for nuisance noise emissions. The nearest noise sensitive receptors (residents) are located approximately 400 m from the premises. Light industry offices are located approximately 150 m from the premises. Any unreasonable noise emissions are anticipated to be localised.</p> <p><i>Controls:</i> The proponent has confirmed that noise reduction equipment is fitted to vehicles and mobile plants. The proponent identified operating hours as 9am – 5pm.</p> | <i>Environmental Protection (Noise) Regulations 1997</i> |



| DECISION TABLE | | | |
|---|--|---|---------------------|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | <p>Noise levels from operating machinery (green waste mulcher) was considered as barely audible above the background noise from traffic and surrounding light industrial area based on an inspection conducted of the premises by DER officers in 2013. It is considered that that operations have not changed therefore noise emissions are not expected to have increased</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> No specified conditions are required form noise emissions as these are managed in accordance with the <i>Environmental Protection (Noise) Regulations 1997</i>. This replaces previous Condition 14 of the previous licence.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> | |
| Monitoring general | L2.1.1 – 2.1.2 | Monitoring is required under conditions 2.2.1 (inputs/outputs), 2.3.1 (process) and 2.4.1 (groundwater). Condition 2.1.1 has been included on the licence to specify the methodology required to be undertaken for monitoring of compost quality and groundwater. These methods assist in ensuring reliability and accuracy of results. | |
| Monitoring of inputs and outputs | L2.2.1 | Condition 1.3.1. specifies the types and volumes of materials permitted to be accepted at the premises. This replaces condition 15 of the previous licence. To allow DER to regulate the volume of waste in compliance with this condition, condition 2.1.2 has been included on the licence to monitor the inputs and outputs of the premises. | |



| DECISION TABLE | | | |
|---|---|--|--|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | | |
| Process monitoring | L1.3.3 L1.3.4 L3.1.2 | <p>Condition 1.3.3 replaces previous conditions, 10, 11, 12, and 13. It requires the licensee to process the materials as required in Table 1.3.2. The requirements include separation distances, moisture levels and temperatures.</p> <p>The current activities onsite do not appear to follow a standard procedure for process monitoring. Condition 3.1.2. (Improvement condition IR2) has been added to the licence to compare the current processes occurring onsite with the Australian Standards (AS) 4454:2012 Composts, Soil Conditioners and Mulches, Appendix N. The final product produced onsite is sold to contractors, retailers and private individuals. By completing this comparison DER will be able to assess the emissions associated with onsite processes.</p> | Australian Standards (AS) 4454:2012 Composts, Soil Conditioners and Mulches |
| Ambient quality monitoring | L2.4.1 L3.1.2 | <p>The depth to groundwater on the premises ranges from 18 to 28.5 meters and the surface geology is considered Tamala limestone (Perth Groundwater Atlas, Department of Water). The nearest surface water body Little Badgerup Lake 800 m to the north and a sump land (former EPP wetland) about 600 m to the east.</p> <p>Condition 2.4.1 has been added to the licence to require ambient groundwater monitoring to allow for the detection of potential leachate contamination to the groundwater and nearby sump land.</p> <p>Condition 3.1.2. (Improvement conditions IR3) has been added to the licence to require the proponent to reinstate groundwater monitoring bores to assist in monitoring the risk to the sensitive environment.</p> | <p>Australian Standards (AS) 4454:2012 Composts, Soil Conditioners and Mulches</p> <p>General provisions of the <i>Environmental Protection Act 1986</i></p> |
| Improvements | L3.1.1 | Condition 3.1.1 outlines the requirements for an improvement program. There is limited information relating to the potential emissions from the property. The improvement | General provisions of the |



| DECISION TABLE | | | |
|---|---|---|--|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | <p>program sets out the information required to make a reasonable assessment of the risk to the environment from the existing operations.</p> <p>IR1 - Requires the Licensee to investigate whether a retention basin is required by undertaking a water balance and risk assessment for the premises.</p> <p>IR2 - Requires the Licensee to assess the existing composting operations against the Australian Standards (AS) 4454:2012 Composts, Soil Conditioners and Mulches, Appendix N and provide DER with a gap analysis for the existing process.</p> <p>IR3 – The risk to groundwater from the operations is considered moderate. Bores for the premises exist but it is unclear if they are operational. The Licensee is required to reinstate a minimum of three groundwater monitoring bores to allow for the detection of leachate.</p> | <i>Environmental Protection Act 1986</i> |
| Information | L4.1.1 – 4.1.3 L4.2.1 – L4.2.2 | <p>Condition 4.1.1 sets out the requirements for any records required under this licence, ensuring they are legible and retained for six years which assists the DER in regulating the conditions of this licence.</p> <p>Condition 4.1.2 replaces the previous Condition 1 and now requires the occupier to undertake an audit of their operations against the conditions of the licence and to report on this compliance in an Annual Audit Compliance Report (AACR). This condition assists the DER in regulating the occupiers' compliance with licence conditions and allows an opportunity for the DER to review the occupier's environmental performance.</p> <p>Condition 4.1.3 requires a complaints management system to be implemented where the occupier can internally address any issues that arise from premises operations. The DER will review the complaints as reported in the Annual Environmental Report (AER) and can consider the requirement for reassessment of any regulatory controls to address the complaints.</p> | General provisions of the <i>Environmental Protection Act 1986</i> |



| DECISION TABLE | | | |
|---|---|---|---|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | <p>Condition 4.2.1 replaces Conditions 2, 3, 4 and 5 of the previous licence. Condition 4 related to the historical landfill operations that had occurred previously onsite.</p> <p>Condition 4.2.1 requires the proponent to submit an AER as part of the reporting requirements. The AER is required to include the AACR and a summary of the complaints required under condition 4.1.3. The AER is also required to provide the results for the monitoring of inputs/outputs, process monitoring and groundwater monitoring. The DER reviews all of the information provided in the AER to assess compliance with the licence conditions and to monitor the environmental impacts from the premises.</p> <p>Condition 4.2.2 requires the information in the AER to be compared to last year's reporting. This will allow for changes and emerging trends to be identified.</p> | |
| Licence Duration | N/A | <p>The premises has planning approval from City of Wanneroo with no expiry date. The premises is risk ranked as medium. The licence has been granted for a period of 10 years in accordance with the Department of Environment Regulation 2015, <i>Guidance statement: Licence duration</i>.</p> | <p>Department of Environment Regulation 2015, <i>Guidance statement: Licence duration</i></p> |



5 Advertisement and consultation table

| Date | Event | Comments received/Notes | How comments were taken into consideration |
|------------|---|-------------------------|--|
| 16/11/2015 | Application advertised in West Australian | No comments received | n/a |
| 17/12/2015 | Proponent sent a copy of draft instrument | Minor comments | Minor administrative changes made |



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

| Likelihood | Consequence | | | | |
|----------------|---------------|----------|----------|----------|---------|
| | Insignificant | Minor | Moderate | Major | Severe |
| Almost Certain | Moderate | High | High | Extreme | Extreme |
| Likely | Moderate | Moderate | High | High | Extreme |
| Possible | Low | Moderate | Moderate | High | Extreme |
| Unlikely | Low | Moderate | Moderate | Moderate | High |
| Rare | Low | Low | Moderate | Moderate | High |