



Licence

Environmental Protection Act 1986, Part V

Licensee: Tullamore Holdings Pty Ltd

Licence: L8462/2010/2

Registered office: Unit 11, 885 Albany Highway
 EAST VICTORIA PARK WA 6981

ACN: 009 127 413

Premises address: Tullamore Holdings
 1 Bailye Road
 BOSCABEL WA 6394
 Being Lot 1 on Plan 18959 as depicted in Schedule 1.

Issue date: Thursday, 17 September 2015

Commencement date: Saturday, 19 September 2015

Expiry date: Friday, 18 September 2020

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 solids	1 000 tonnes or more per year	20 000 tonnes per annual period

Conditions

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

.....
Ruth Dowd
 Senior Manager – Industry Regulation (Waste Industries)
 Officer delegated under section 20
 of the *Environmental Protection Act 1986*



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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

The Tullamore Holdings Premises is situated within the locality of Boscabel, 14km north of the township of Kojonup. The Kojonup district is a mixed farming area. The nearest residence is located 1.5km west of the Premises.

The Premises receives an average rainfall of 400mm per annum. Groundwater within the area is estimated to be approximately 20m below ground level. The nearest surface water bodies are a dam on a neighbouring property approximately 270m south of the Premises, and a small intermittent creek approximately 500m south of the Premises.

The operation includes twice weekly receipt of partially dry biosolids (primarily from the Water Corporation Albany Wastewater Treatment Plant (WWTP) and other WWTP. The composting process consists of the placement of biosolids and manure (typically chicken manure) in windrows to be mixed with straw and clay. Water is added to wet down the mixture which is turned regularly using a windrow turner. Following initial breakdown (approximately two weeks), two windrows are merged into one and additional clay is placed on top of the windrow to stabilise the compost. Further regular turning of the windrows occurs until the composting process is complete (usually within another 6-8 weeks). The compost is produced under aerobic conditions, which are monitored daily. The majority of the compost produced is spread onto the Licensees Premises, or other properties owned by the Licensee.

The main potential emissions from the Premises are odour and the contamination of land or groundwater from contaminated stormwater or leachate emissions. Composting is undertaken on a hardstand of 300mm constructed of compacted water bound clay /gravel road base. Potentially contaminated stormwater runoff and leachate from the hardstand are captured within the drainage channel excavated into the existing clay soils downslope of the composting hardstand. The channel flows to a sediment trap and then a dam which is excavated into the existing clay soils.

There is the potential for odour emissions from the biosolids and manure used within the process. To reduce the potential for odour emissions, any stored manure and biosolids are required to be covered, and aerobic composting conditions are maintained.

This Licence is the successor to licence L8462/2010/1 and includes the conversion into the new licence format.

The licences and works approvals issued for the Premises since 17/09/2010 are:

Instrument log		
Instrument	Issued	Description
L8462/2010/1	17/09/2010	New application
L8462/2010/2	17/09/2015	Licence re-issue

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 31 December in the following year;

'AS 4454' means Australian Standard AS 4454 *Composts, soil conditioners and mulches*;

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

'biosolids' means solid, semi-solid or slurry material produced by the treatment of sewage (sewage sludge);

'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*;

'covered' means completely covered with a tarpaulin (or other impervious material to the same effect) to minimise odour and leachate generation;

'freeboard' means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point;

'green waste' means waste that originates from flora and which does not contain or has not been treated or coated with, preserving agents, biocides, fire retardants, paint, adhesives or binders;

'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 L8462/2010/2 and issued under the Act;

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

'manure' means any organic product composed mainly of animal excreta;

'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;

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

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

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.

1.1.5 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:

- (a) pollution;
- (b) unreasonable emission;
- (c) discharge of waste in circumstances likely to cause pollution; or
- (d) being contrary to any written law.

1.2 General conditions

1.2.1 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.

1.2.2 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.2.3 The Licensee shall:

- (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
- (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.¹

Note1: *The Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

1.3 Premises operation

1.3.1 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 1.3.1; and
- (c) it meets any specification listed in Table 1.3.1.



Table 1.3.1: Waste acceptance		
Waste type	Quantity limit tonnes/ annual period	Specification¹
Manure	4600	None specified
Biosolids	6000	None specified
Clay	N/A	None specified
Green waste	1600	Including straw

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*.

1.3.2 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in conditions 1.3.1 it is removed from the Premises by the delivery vehicle or, where that is not possible, the Licensee shall contact the CEO to agree a course of action in relation to the waste.

1.3.3 The Licensee shall ensure that wastes accepted onto the Premises are only subjected to the processes set out in Table 1.3.2 and in accordance with any process limits described in that Table.

Table 1.3.2: Processing of materials		
Waste type	Process	Process requirements
As listed in Table 1.3.1	Receipt, handling and storage prior to composting	(a) Biosolids shall be stored on the composting hardstand. (b) Manure shall be stored on the concrete hardstand and covered. (c) Any mixing and blending of manure shall be undertaken on the composting hardstand.
	Treatment by composting and pasteurisation	Shall be undertaken on the composting hardstand.
	Final compost storage and disposal to land or removal off site	Storage shall be undertaken on the composting hardstand.

1.3.4 The Licensee shall ensure that waste is stored and/or contained within infrastructure in accordance with Table 1.3.3 and that the integrity of the containment infrastructure is maintained.

Table 1.3.3: Containment infrastructure		
Containment area/infrastructure	Material	Infrastructure requirements
Composting hardstand (as depicted in the Site layout in Schedule 1)	Biosolids, compost windrows and final compost product	Bunded hardstand area
Concrete hardstand (as depicted in the Site layout in Schedule 1)	Manure	Bunded concrete hardstand area
Dam	Contaminated stormwater and leachate	(a) Lined to achieve a permeability of less than 10^{-9} m/s or equivalent. (b) A minimum top of embankment freeboard of 300 mm shall be maintained. (c) Capacity to store a 72 hour duration, 1 in 10 year ARI critical rainfall event without



		overflow.
Drainage channel and sediment trap	Contaminated stormwater and leachate	Excavated into in-situ clay soils

- 1.3.5 The composting operation must be managed according to AS 4454.
- 1.3.6 The Licensee shall ensure that all biosolids are managed in accordance with the "Western Australian Guidelines for Biosolids Management", Department of Environment and Conservation, as amended from time to time.
- 1.3.7 The Licensee shall ensure stormwater drains are kept clean of contamination and litter.
- 1.3.8 The Licensee shall not burn or allow the burning of green waste or compost on the premises.
- 1.3.9 The Licensee shall extinguish any fire that may occur within the green waste or compost on site within eight hours of being notified of the fire.

2 Monitoring

2.1 Monitoring of inputs and outputs

- 2.1.1 The Licensee shall undertake the monitoring in Table 2.1.1 according to the specifications in that table.

Input/Output	Parameter	Units	Averaging period	Frequency
Waste inputs	Mass of each waste type as listed in Table 1.3.1	Tonnes	N/A	Each load arriving at the Premises
Compost outputs	Mass of final compost product	Tonnes	N/A	Each load leaving the premises
	Mass of final compost product	Tonnes	N/A	Each load spread within the premises
	Compost application rate	Tonnes per hectare		

3 Information

3.1 Records

- 3.1.1 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 3.1.1(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.

- 3.1.2 The Licensee shall ensure that:
- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
 - (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

3.1.3 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.

3.1.4 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.

3.2 Reporting

3.2.1 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 3.2.1 in the format or form specified in that table.

Table 3.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form¹
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
-	The effectiveness of measures taken to control pests and vermin	
-	The details of any fires on the site	
-	The effectiveness of dust suppression measures	
Table 2.2.1	Inputs and outputs	
	Any conversion factor used to convert volume in m ³ to mass in tonnes	
3.1.3	Compliance	Annual Audit Compliance Report (AACR)
3.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2



Schedule 1: Maps

Premises map

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





Site layout





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:	Licence File Number:
Company Name:	ABN:
Trading as:	
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 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: Tullamore Holdings Pty Ltd

Licence: L8462/2010/2

Registered office: Unit 11, 885 Albany Highway
EAST VICTORIA PARK WA 6101

ACN: 009 127 413

Premises address: Tullamore Holdings
1 Bailye Road
BOSCABEL WA 6394
Being Lot 1 on Plan 18959 as depicted in Schedule 1.

Issue date: Thursday, 17 September 2015

Commencement date: Saturday, 19 September 2015

Expiry date: Friday, 18 September 2020

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: Tessa Smith
Licensing Officer

Decision Document authorised by: Ruth Dowd
Delegated Officer



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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's 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	20 000 tonnes or more per annum
Application verified	Date: 08/07/2015	
Application fee paid	Date: 19/08/2015	
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		
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"/>	Referral decision No: Managed under Part V <input type="checkbox"/>



		Assessed under Part IV <input 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 type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" 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

The Tullamore Holdings Premises is situated within the locality of Boscabel, 14km north of the township of Kojonup. The Kojonup district is a mixed farming area. The nearest residence is located 1.5km west of the Premises. The Premises boundary has been defined as the entire Lot 1 on Plan 18959; however, the composting activities on the Premises occupy only 10-15% of the Lot. The area of the Premises where the composting activity is undertaken is located 260m east of the homestead on the Premises. The north west corner of the hardstand is located 40m east of the highest point on the Premises.

The Premises receives an average rainfall of 400mm per annum. Groundwater within the area is estimated to be approximately 20m below ground level. The nearest surface water bodies are a dam on a neighbouring property approximately 270m south of the Premises, and a small intermittent creek approximately 500m south of the Premises.

The operation includes twice weekly transport of partially dry biosolids (primarily from the Water Corporation Albany Wastewater Treatment Plant (WWTP), but includes other Water Corporation WWTP's) to the Premises by the Licensee. The composting process consists of the placement of biosolids and manure (typically chicken manure) in windrows to be mixed with straw and clay. Water is added to wet down the mixture which is turned regularly using a windrow turner. Following initial breakdown (approximately two weeks), two windrows are merged into one and additional clay is placed on top of the windrow to stabilise the compost. Further regular turning of the windrows occurs until the composting process is complete (usually within another 6-8 weeks). The compost is produced under aerobic conditions, which are monitored daily. The majority of the compost produced is spread onto the Licensees Premises, or other properties owned by the Licensee.

The composting hardstand slopes from west to east and north to south (approximately 1.2m in both directions). The hardstand consists of 300mm of compacted water bound clay/gravel road base. The top soil was removed prior to the application of the road base. The top soil depth was up to 100mm over a clay sub soil base. An old wash down bay within the Premises is currently being used as a concrete hardstand for the storage of manure.

A drainage channel 1 km in length is excavated into the existing clay soils downslope of the composting hardstand, collecting potentially contaminated stormwater runoff and leachate. The channel flows to a sediment trap and then a dam which is excavated into the existing clay soils. The sediment trap is routinely excavated via front end loader, and the sediment that is removed is reused within the composting process. The water within the dam is at times re-used within the composting process. In the rare event that the dam becomes full and is at risk of overflowing, as a contingency measure the wastewater can be pumped to a second smaller dam within the Premises which is kept empty (by using the water captured within the dam in the composting process).

The main potential emissions from the Premises are odour and the contamination of land or groundwater from contaminated stormwater or leachate emissions. Biosolids, compost windrows and final product are required to be stored on the composting hardstand. Potentially contaminated stormwater runoff and leachate from the hardstand are captured within the drainage channel downslope and contained within the dam on the Premises. Manure is required to be stored on a concrete hardstand, and covered to reduce leachate generation.

There is the potential for odour emissions from the biosolids and manure used within the process. Stored manure is required to be covered, which will reduce the potential for odour emissions. The compost is produced under aerobic conditions, which are monitored daily.



The licence has been converted into the new format, in line with current licensing process. Risk assessments have been undertaken for dust, odour and potential contamination of land and groundwater. Some requirements of the previous licence have not been included in this licence and they were not considered necessary. Details are included within the decision table. In regards to the risk to land and groundwater, the need for further mitigation measures and monitoring has not been reviewed at this time pending the finalisation of the DER draft Environmental Standard: composting and instruction regarding how this will be applied to existing Premises.



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
Interpretation	L1.1.1 – 1.1.5	The licence format has changed in line with the current licensing process. This has involved the addition of conditions 1.1.1 to 1.1.5 which were not on the previous version of the licence.	N/A
General conditions	1.2.1 - 1.2.3	The licence format has changed in line with the current licensing process. This has involved the addition of conditions 1.2.1 to 1.2.3. Condition 1.2.1 and 1.2.2 were not on the previous licence and require the maintenance of pollution control equipment and the immediate recovery of spills of environmentally hazardous materials. Condition 1.2.3 replaces conditions 7, 8 and 9 of the previous licence, regarding the management of stormwater within the Premises.	N/A
Premises operation	1.3.1 – 1.3.9	<p>Existing Premises operations have not been reviewed or re-assessed as part of this re-issue of the licence.</p> <p>Conditions 1.3.1 and 1.3.2 were not on the previous licence. The conditions have been included as a control on the waste types that may be accepted at the Premises, and specify the action required in the case of waste not meeting the acceptance criteria. Quantity limits for manure, biosolids and green waste (straw) have been included as were stated in the works approval application for the Premises.</p> <p>Condition 1.3.3 within the licence replaces condition 5 and 15 of the previous licence. A definition has been included for 'covered' which was not in the previous licence, specifying that covered means completed covered with a tarpaulin (or other impervious material to the same effect) to minimise odour and leachate generation.</p>	<p>Western Australian Guidelines for Biosolids Management, Department of Environment Conservation 2012.</p> <p>Application for Works Approval/Licence,</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 1.3.4 within the licence replaces conditions 6, 7, 9 and 11 of the previous licence. Information about the existing drainage channel on the Premises has been included in Table 1.3.3, although was not specified in the previous licence. The decision to retain the freeboard limit from condition 9 of the previous licence has been justified below within the risk assessment for the potential emissions to land and groundwater. It is noted that condition 6 of the previous licence states that green waste does not need to be stored on a hardstand, therefore no containment requirements for green waste have been specified within the new licence. Future review of the licence in line with the DER Environmental Standard: composting (when the standard is finalised) may result in a change in the storage requirements for green waste. However, currently the only green waste used within the process is straw, which is considered to pose a very low risk of stormwater contamination or leachate being generated. No containment requirements are specified for the storage of clay within this licence, as it does not present a contamination risk to land or groundwater. Any sediment which may run off from the clay stockpile will be captured within the drainage channel and the sediment trap on the premises.</p> <p>It is noted that the composting hardstand referred to in condition 1.3.4 has been depicted within the site layout figure in Schedule 1, and is based on the hardstand area approved as part of the works approval for the site (depicted within the application for works approval). The Licensee has recently extended the composting hardstand without seeking a works approval or licence amendment. This is subject to ongoing compliance investigations and the permeability of the extended hardstand has not been confirmed. For this reason the extended hardstand area has not been captured within the hardstand area depicted in the site layout figure in Schedule 1.</p> <p>Condition 1.3.5 within the licence replaces condition 1 of the previous licence.</p> <p>Condition 1.3.6 within the licence replaces condition 4 of the previous licence. The condition wording has changed slightly as the reference to the Western Australian</p>	<p>For the Production of "Humidified Compost", Tullamore Holdings Pty Ltd, August 2009.</p> <p>Draft Environmental Standard: composting, DER, June 2015</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>Guidelines for Direct Land Application of Biosolids and Biosolids Products has been updated to the most recent Guideline, "Western Australian Guidelines for Biosolids Management", Department of Environment and Conservation.</p> <p>Condition 1.3.7 within the licence replaces condition 10 of the previous licence.</p> <p>Condition 1.3.8 within the licence replaces condition 13 of the previous licence.</p> <p>Condition 1.3.9 within the licence replaces condition 14 of the previous licence.</p> <p><u>Emission Description</u> <i>Emission:</i> Potential emission of contaminated stormwater and leachate to land and groundwater due to infiltration via the composting hardstand, drainage channel or dam. <i>Impact:</i> contamination of land and groundwater. The groundwater is expected to be approximately 20m below ground level. A groundwater bore previously located within the Premises was stated by the Licensee (within the works approval application) to have shown groundwater depths at 20m. <i>Controls:</i> Manure is required to be stored on a concrete hardstand and completely covered with a tarpaulin (or other impervious material to the same effect) to minimise leachate generation. This is currently being achieved by storage of the manures within an old concrete wash down bay, covered with a tarpaulin. All other wastes (except for green waste and clay) are required to be stored on the composting hardstand. The composting hardstand has been constructed on a slope, and consists of 300mm of compacted water bound clay/gravel road base. A drainage channel is excavated into the existing clay soils downslope of the composting hardstand, collecting potentially contaminated stormwater runoff and leachate. The channel flows to a sediment trap and then a dam which is excavated into the existing clay soils. The dam has been designed to store the runoff generated by a 72 hour duration, 1 in 10 year ARI critical rainfall event without overflow.</p> <p><u>Risk Assessment</u></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>Consequence: Moderate</i> <i>Likelihood: Unlikely</i> <i>Risk Rating: Moderate</i></p> <p><u>Regulatory Controls</u> Permeability testing was undertaken on the composting pad and the dam in January 2015. The results showed that the permeability of the sample taken from the hardstand was 4×10^{-10} m/s, and the permeability of the sample taken from the dam was 1.6×10^{-9} m/s, however only one sample was taken from each location and therefore there is some doubt regarding whether the results are representative. The definition of 'hardstand' within the previous licence is also included in this licence, requiring a hardstand to have a permeability of 10^{-9} m/s or less. The permeability of the existing clay soils within the drainage channel is not known.</p> <p>Conditions have been carried over from the previous licence requiring all activities (other than the storage of green waste) to be undertaken on a hardstand, and manure to be covered with a tarpaulin (or other impervious material to the same effect) and stored on a concrete hardstand.</p> <p>A condition requiring the Licensee to maintain a freeboard of 300 mm within the dam has also been carried across from the previous licence. The freeboard limit is justified on the basis of preventing overflow which may potentially result in the contamination of land and groundwater.</p> <p>The adequacy of the concrete hardstand, drainage channel, sedimentation basin and dam to contain potentially contaminated stormwater and leachate will require review following the finalisation of the DER draft Environmental Standard: composting. It is noted that the need for introducing groundwater quality monitoring will also be reviewed at this time (as currently this monitoring is not undertaken).</p> <p><u>Residual Risk</u> <i>Consequence: Moderate</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><i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p>	
Fugitive emissions	N/A	<p><u>Emission Description</u> <i>Emission:</i> Dust emissions may be generated from machinery operation and vehicle movements within the Premises. <i>Impact:</i> Potential impacts on the crops in the surrounding agricultural area and nuisance caused to neighbouring residences. The nearest residence is located 1.5km west of the Premises. <i>Controls:</i> Dust is not expected to be generated from biosolids or manure feedstocks or compost windrows, as these are maintained in a moist state for the composting process. Water spraying can be done using the compost turning machine if necessary.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> The previous licence contained condition12 for dust management, which has not been carried over into this licence as fugitive emissions of dust can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i>. In accordance with DER's licensing process, no specified conditions for fugitive emissions have been included on this licence.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p>	
Odour	N/A	<u>Emission Description</u>	



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>Emission:</i> Odour emissions may be generated from the manure and biosolids used as feed stocks within the composting process.</p> <p><i>Impact:</i> Nuisance may be caused to neighbouring residences. The nearest residence is located 1.5km west of the Premises.</p> <p><i>Controls:</i> Manure stockpiles are required to be covered with a tarpaulin. Composting is maintained under aerobic conditions, which are monitored daily.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> The previous licence contained conditions 15 and 16 for odour management. Condition 15 requiring the covering of manure stockpiles has been carried over into this licence. Condition 16 has not been carried over into this licence. Odour emissions can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i>. In accordance with DER's licensing process, no specified conditions for odour emissions have been included on this licence.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p>	
Monitoring of inputs and outputs	L2.1.1	Condition 2.1.1 has been added to the Licence as a new condition, requiring monitoring of waste inputs, and compost product outputs. A requirement has been included for the Licensee to monitor the mass of compost leaving the Premises or spread within the Premises, as well as the compost application rate within the Premises. As the majority of the compost produced on the Premises is either spread within the Premises or on other properties owned by the Licensee, the requirement to monitor application rates within the Premises will help to indicate whether there may be potential environmental harm	N/A



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		occurring based on the quantity of waste applied to land.	
Process monitoring	N/A	<p>Conditions 18, 19 and 20 of the previous licence required that the Licensee ensure that results obtained from sampling of wastewater within the drainage channel at the Premises conformed to specified parameter targets, and that sampling was conducted appropriately. These requirements have not been carried over into this licence. The targets and the implied wastewater quality monitoring within the previous licence are not considered to have any regulatory benefit, without increasing the suite of parameters monitored, and introducing groundwater quality monitoring (which is not currently undertaken).</p> <p>The need to introduce groundwater and wastewater quality monitoring for the purpose of detecting impacts to groundwater due to infiltration of wastewater will be reviewed following the finalisation of the DER draft Environmental Standard: composting.</p>	Draft Environmental Standard: composting, DER, June 2015
Ambient groundwater quality monitoring	N/A	It is noted that groundwater monitoring may be recommended for this Premises, however pending the finalisation of the DER draft Environmental Standard: composting the need for groundwater monitoring has not been reviewed at this stage.	Draft Environmental Standard: composting, DER, June 2015
Information	L3.1.1 – 3.1.4 L3.2.1 L3.3.1	<p>The licence format has changed in line with the current licensing process. This has involved the addition of conditions 3.1.1 and 3.1.2 which were not on the previous version of the licence.</p> <p>Condition 3.1.3 within the licence replaces condition 21 of the previous licence.</p> <p>Condition 3.1.4 within the licence replaces condition 2 of the previous licence.</p> <p>Condition 3.2.1 within the licence replaces condition 17 of the previous licence, and the below listed changes have been made to the condition;</p> <ul style="list-style-type: none"> The previous licence conditions 17 and 21 required the submission of the 	N/A



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>Annual Monitoring Report on 1 February, and the submission of the Annual Audit Compliance Report (AACR) on 1 November. The Licensee has agreed to a change in the submission dates so that both reports are due at the same time. Condition 4.2.1 of the new licence requires both the AACR and the Annual Environmental Report (AER) to be submitted on 1 February 2015. The AACR to be submitted on 1 February 2015 will need to report on the period from the 1 September 2014 to 31 December 2015 (16 months).</p> <ul style="list-style-type: none">• Requirement (vi) of the previous licence has not been carried over into this licence as this reporting requirement is no longer being included within licences.• Requirement (ix) of the previous licence has not been carried over into this licence as there will be no requirement to monitor the wastewater within the drainage channel.• The requirement to report the results of inputs and outputs monitoring has been added to the licence.• Requirements within the previous licence (iv, vii, x) to report effectiveness of measures to control windblown waste, volume of groundwater put over compost annually and volume of dam water pumped over compost, have not been included with this licence as this information is not considered necessary for reporting purposes. Windblown waste is not an issue on the site as there are no wastes stored on site that present a risk of becoming windblown.	
Licence Duration	N/A	<p>It is recommended that the Licence is issued for a period of 5 years. A longer duration is not recommended as a thorough reassessment could not be undertaken prior to the required re-issue date of the Licence. It is also noted that the operations of the Premises are expected to be reviewed following the finalisation of the DER draft Environmental Standard: composting in the near future.</p>	



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
24/08/2015	Application advertised in West Australian (or other relevant newspaper)	No comments received.	N/A
15/09/2015	Proponent sent a copy of draft instrument	<ul style="list-style-type: none"> • The draft Licence has not included Paunch material, is it just classed as straw or does it need to be added? • The storage of Bio solids, manure needs to be defined e.g. if it is placed in a row it is not in storage. • Clay to be stored on hardstand is unreasonable because it is not a risk to the environment whatsoever. 	<ul style="list-style-type: none"> • The Licensee is advised that the acceptance of Paunch material will need to be proposed as a Licence amendment for assessment. Paunch material will not be included within this licence. • The comment is interpreted as meaning that manure or biosolids in windrows should not require cover. The addition of the requirement to cover biosolids was reviewed and it was determined that the risk posed by the biosolids storage on the hardstand was not great enough to justify the addition of the requirement to cover the biosolids. When the DER draft Environmental Standard: Composting is finalised, this may be reviewed. The requirement to cover biosolids was removed from the draft Licence. The requirement to cover manure stored on the concrete hardstand remains on the Licence. • The requirement to store clay on the composting hardstand was reviewed



Date	Event	Comments received/Notes	How comments were taken into consideration
			and it was decided that the clay did not pose a contamination risk to land or groundwater, therefore storage off the hardstand would be acceptable. The requirement to store clay on the composting hardstand was removed from the draft Licence.



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