



# Licence

## *Environmental Protection Act 1986, Part V*

**Licensee:** City of Mandurah

**Licence:** L6860/1995/11

**Registered office:** 3 Peel Street  
MANDURAH WA 6210

**Premises address:** Tim's Thicket Waste Management Facility  
180 Tims Thicket Road  
DAWESVILLE WA 6211  
Being part of Lot 1944 on Plan 191987 within co-ordinates (MGA Zone 50) E370695, N6386250; E370686, N6386894; E370887, N6386894; E370886, N6387062; E371086, N6387065; E371094, N6386410; and E370776, N6386251 as depicted in Schedule 1.

**Issue date:** Friday, 9 November 2012

**Commencement date:** Thursday, 15 November 2012

**Expiry date:** Wednesday, 14 November 2029

**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
13	Crushing of building material: premises on which waste building or demolition material (for example, bricks, stones or concrete) is crushed or cleaned.	1 000 tonnes or more per year	10,000 tonnes per annual period
63	Class I inert landfill site: premises on which waste (as determined by reference to the waste types set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the CEO and as amended from time to time) is accepted for burial.	500 tonnes or more per annual period	50,000 tonnes per annual period

**Conditions**

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

Date signed: 8 July 2016

.....  
**Caron Goodbourn**

A/Manager Licensing (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**

City of Mandurah are the occupants of the Tims Thicket Waste Management Facility (Premises). The operations at the Premises are currently managed under contract by Transpacific Cleanaway Pty Ltd. The Premises is located south of Dawesville on Tim's Thicket Road, 15 km south of Mandurah and covers an area of 28 hectares. The Premises has been in operation since 1995 and until recently operated as both a Category 61 liquid waste facility and Category 63 Class I Inert Landfill. The Premises ceased accepting liquid waste (septage) in approximately December 2014

Current Licence amendment

This Licence is the result of the amendment sought by the Licensee in May 2016 for the inclusion of category 13 (crushing of building material) to approve crushing of up to 10,000 tonnes of concrete on the premises per annual period (with a nominated throughput of 5,000 tonnes per annual period). The crushing and screening activities will be initially undertaken on the already existing concrete stockpile, which is estimated to be 21,290 m<sup>3</sup> (including void space). Once complete, the newer stockpiles will then be processed.

Cleanaway intend to engage the services of a sub-contractor to supply a diesel powered jaw crusher (model unspecified) and hydraulic excavator to conduct the crushing operations onsite. The stockpiles will be processed in batches of 3,000 m<sup>3</sup> (including void space). The size of the processed concrete will range from 50 – 300 mm (the majority of the crushed product will be of the 50 mm specification).

Cleanaway have an Environmental management Plan (EMP) to address the environmental risks of the proposal to crush concrete on the premises, and an Asbestos Management Plan (AMP) has also been prepared by Cleanaway in accordance with the DER *Guidelines for Managing Asbestos at Construction and Demolition Waste Recycling Facilities* to set out asbestos detection and sampling commitments for the processed material.

The licences and works approvals issued for the Premises since 20/10/2003 are:

Instrument log		
Instrument	Issued	Description
L6860/1995/8	20/10/2003	Licence re-issue
L6860/1995/9	01/11/2004	Licence re-issue
L6860/1995/10	15/11/2007	Licence re-issue
L6860/1995/11	09/11/2012	Licence re-issue
L6860/1995/11	4/06/2015	Licence amended and improvement conditions added.
W5779/2014/1	17/12/2015	Works approval issued: solid waste depot
L6860/1995/11	17/12/2015	Licence transfer
L6860/1995/11	14/07/2016	Licence amendment for inclusion of crushing of building material

**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*;

**'ACM'** means asbestos containing material and has the meaning defined in the Guidelines for Assessment, Remediation and Management of Asbestos Contaminated Sites, Western Australia, (Department of Health 2009);

**'AHD'** means the Australian height datum;

**'acceptance criteria'** has the meaning defined in the Landfill Definitions;

**'annual period'** means the inclusive period from 1 January until 31 December in that year;

**'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 5667.10'** means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*;

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

**'asbestos'** means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysolite, crocidolite, tremolite and any mixture containing 2 or more of those;

**'averaging period'** means the time over which a limit or target 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](mailto:info@der.wa.gov.au)

**'Clean Fill'** has the meaning defined in the Landfill Definitions;

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

**'DER Asbestos Guidelines'** means the document titled "Guidelines for managing asbestos at construction and demolition waste recycling facilities", published by the Department of Environment and Conservation in 2012, as amended from time to time;



**'DER Material guideline for Clean Fill'** means the document titled "Material guideline: Clean fill", published by the Department of Environment Regulation in December 2014, and as amended from time to time;

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

**'Inert Waste Type 1'** has the meaning defined in the Landfill Definitions;

**'Landfill Definitions'** means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time;

**'Licence'** means this Licence numbered L6860/1995/11 and issued under the Act;

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

**'m(bgl)'** means metres below groundwater level;

**'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;

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

**'quarantined storage area or container'** means a hardstand storage area or sealed-bottom container that is separate and isolated from authorised waste disposal areas and is capable of containing all non-conforming waste and its constituents, these areas must be clearly marked and their access restricted to authorised personnel;

**'recycled products'** means product arising from crushing, screening and/or blending of Inert Waste Type 1, for beneficial use on or off the Premises;

**'rehabilitation'** means the completion of the engineering of a landfill cell and includes capping and/or final cover;

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

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

**'sludge'** means unstabilised concentrated organic solids produced during a wastewater treatment process. Sludge cannot be beneficially used without further treatment and stabilisation to produce biosolids;

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

**'SWL'** means Standing Water Level in meters below ground level (m bgl) and metres referenced to Australian Height Datum (m AHD) (with measurements taken prior to groundwater sampling); and

**'usual working day'** means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia.

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

**1.2 Premises operation**

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

- (a) it is of a type listed in Table 1.2.1; 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 / annual period	Specification
Clean Fill	(a) No more than 50,000 m <sup>3</sup> of waste accepted for burial per annual period; and (b) Not more than 10,000 tonnes of Inert Waste Type 1 accepted for crushing per annual period.	(i) Clean fill received which meets the specifications in the DER Material Guideline for Clean Fill is not subject to the quantity limit in (a) (left).
Inert Waste Type 1		(ii) Waste containing visible asbestos or ACM shall not be accepted
Contaminated solid waste		(iii) Supported by documentation that demonstrates compliance with the acceptance criteria for an Class I inert landfill in accordance with the Landfill Definitions.

1.2.2 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in conditions 1.2.1 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a quarantined 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 controls described in that Table.

Table 1.2.2: Waste processing		
Waste type	Processes	Process controls <sup>1</sup>
All waste	Receipt, handling, and storage of waste prior to landfilling or crushing/screening	<ul style="list-style-type: none"> <li>(a) Prior to acceptance, incoming loads of waste shall be inspected for evidence of asbestos and the driver interviewed about the waste source to classify the level of risk of asbestos contamination;</li> <li>(b) Every load of waste accepted and classified shall be directed to an unloading area at the site which is designed and constructed to ensure the waste will not mix with other waste;</li> <li>(c) Every load of waste accepted and classified shall be unloaded onto the area in (b) and spread over a sufficiently large area to enable a comprehensive visual inspection of all sides of the material for asbestos;</li> <li>(d) If evidence of asbestos contamination is noted as a result of the inspections in (c), the load shall be dampened, access to the area restricted, and arrangements made immediately to have the material removed from the Premises as soon as possible and transferred<sup>2</sup> to an appropriately authorised facility for disposal;</li> <li>(e) Subject to no asbestos being detected, any putrescible wastes and other contaminants received within Inert Waste Type 1 (paper, plastics, glass, metal and timber, etc.) shall be recovered and segregated for removal from</li> </ul>



		<p>the Premises in accordance with condition 1.2.2, prior to any landfilling, crushing and/or screening activities;</p> <p>(f) No waste shall be temporarily stored within 25 metres from the boundary of the Premises.</p>
Clean Fill and Inert Waste Type 1	Disposal of waste by landfilling (category 63)	<p>(g) The Licensee shall only dispose of waste by landfilling within the landfill area shown on the Landfill Area Map in Schedule 1.</p> <p>(h) No waste shall be landfilled within 25 metres from the boundary of the Premises.</p> <p>(i) The separation distance between the base of the landfill and the highest groundwater level shall not be less than 1m.</p>
Inert Waste Type 1	Crushing and/or screening of waste to produce recycled products (category 13)	<p>(j) Crushing and/or screening shall not occur if wind conditions will result in the release of dust from the activity/s beyond the boundary of the Premises;</p> <p>(k) Crushing and/or screening of waste shall only be undertaken between 7am to 4pm Monday to Friday;</p> <p>(l) Material should be dampened prior to crushing and maintained in a dampened state throughout the crushing process;</p> <p>(m) Water sprinklers shall be installed on dust emission points on crushing and screening equipment and operated whenever crushing and/or screening occurs.</p>

Note 1: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

Note 2: Additional requirements for the transport of controlled waste (including asbestos) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

- 1.2.4 The Licensee shall manage the landfilling activities to ensure:
- (a) waste is levelled and compacted as soon as practicable after it is discharged; and
  - (b) waste is placed and compacted to ensure all faces are stable and capable of retaining rehabilitation material; and
  - (c) rehabilitation of the tip face takes place:
    - (i) as soon as practical after final landfill contours have been met; or
    - (ii) in an area that is no longer in operational use.
- 1.2.5 The Licensee shall implement the following security measures at the site:
- (a) erect and maintain suitable fencing to prevent unauthorised access to the site; and
  - (b) ensure that any entrance gates to the premises are securely locked when the premises are unattended; and
  - (c) undertake regular inspections of all security measures and repair damage as soon as practicable.
- 1.2.6 The Licensee shall install and maintain a sign at the entrance to the Premises which clearly displays the following information:
- (a) hours of operation;
  - (b) contact telephone number; and
  - (c) warning indicating penalties for people lighting fires.
- 1.2.7 The Licensee shall take all reasonable and practical measures to ensure that no wind-blown waste escapes from the Premises and that wind-blown waste is collected on at least a weekly basis and returned to the tipping area.
- 1.2.8 The Licensee shall ensure that the asbestos content of any recycled product originating from construction and demolition waste does not exceed the contamination limits specified in Table 1.2.3.





**Table 1.2.3: Recycled product contamination limits**

Recycled product	Parameter	Limit
Recycled drainage rock	Asbestos (in any form)	0.001%w/w
Recycled sand		
Recycled road base		

1.2.9 The Licensee shall ensure that where any material exceeds the limit specified in Table 1.2.3, arrangements are made immediately to have the material removed from the Premises as soon as possible and transferred<sup>1</sup> to an appropriately authorised facility for disposal.

Note 1: Additional requirements for the transport of controlled waste (including asbestos) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

## 2 Monitoring

### 2.1 General monitoring

2.1.1 The licensee shall ensure that:

- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
- (c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.

2.1.2 The Licensee shall ensure that six monthly monitoring is undertaken at least 5 months apart.

2.1.3 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications and the requirements of the Licence.

2.1.4 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

### 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
Solid waste inputs to landfill	Clean Fill, Inert Waste Type 1, Contaminated Solid Waste.	m <sup>3</sup> and tonnes	Total for annual period	Each load arriving at the Premises
Solid waste inputs to crushing/screening	Inert Waste Type 1			



Solid waste outputs	Waste type as defined in the Landfill Definitions			Each load leaving or rejected from the Premises in accordance with condition 1.2.2, Table 1.2.2 (e), Table 1.2.2 (f) and condition 1.2.9
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### 2.3 Ambient environmental quality monitoring

2.3.1 The Licensee shall 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	Parameter	Units	Averaging Period	Sampling Frequency
Monitoring Bores MB1, MB2, MB3, MB4, MB5, MB6, MB7, MB8 and MB9 (As shown in Schedule 1 – Map of monitoring locations)	pH <sup>1</sup>	-	Not applicable (Spot sample)	Six months
	Electrical Conductivity	mS/m		
	Total Dissolved Solids	mg/L		
	Nitrite-nitrogen			
	Ammonium			
	Total Nitrogen			
	Total Phosphorus	m(AHD) m(bgl)		
	Standing Water Level (SWL) <sup>2</sup>			
	Heavy metals	mg/L		
Hydrocarbons	mg/L			

Note 1: In-field non-NATA accredited analysis permitted.

Note 2: SWL shall be determined prior to collection of other water samples.

### 2.4 Process Monitoring

2.4.1 The Licensee shall undertake the monitoring in Table 2.4.1 according to the specifications in that table.

**Table 2.4.1 Process monitoring**

Process	Parameter	Units	Frequency and method
Crushing/ screening (category 13)	Asbestos content (in any form) in resulting material	%w/w	In accordance with the DER Asbestos Guidelines.



## 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.

3.1.2 The Licensee, for improvements not specifically requiring a written submission, shall write to the CEO stating whether and how the Licensee is compliant with the improvement within one week of the completion date specified in Table 3.1.1.

Table 3.1.1: Improvement program		
Improvement reference	Improvement	Date of completion
IR1	<p>The Licensee shall prepare and submit to the CEO an Asbestos Management Plan (AMP) that is consistent with the DER Asbestos Guidelines. As a minimum the AMP shall include:</p> <ul style="list-style-type: none"><li>• Standard operational procedures (SOP's) for the pre-acceptance and acceptance of waste and how any asbestos detected on-site will be managed; and</li><li>• Identification of each person's roles and responsibilities under the AMP; and</li></ul> <p>Procedures for detailing incidents or emergencies associated with asbestos.</p>	4 July 2015
IR2	<p>The Licensee shall submit to the CEO an Assessment Report which includes but is not limited to:</p> <p>(a) a Groundwater Assessment for the Premises which is to include but not be limited to:</p> <ul style="list-style-type: none"><li>(i) details of the topography, surface drainage, surface geology and aquifer characteristics both beneath the premises and the surrounding area;</li><li>(ii) an assessment of groundwater depth and direction and rate of groundwater flow beneath the site;</li><li>(iii) an assessment of groundwater quality characteristics, including temperature, specific conductance, oxidation reduction potential (eH), dissolved oxygen, pH, and alkalinity;</li><li>(iv) an assessment of the current groundwater monitoring network, including whether the existing groundwater monitoring bores are strategically located to capture potential impacts arising from the site activities for comparison with the up-gradient groundwater quality;</li><li>(v) groundwater contamination status and assessment of the risk to the environment and human health arising from potential contamination, which is to be completed in accordance with the '<i>National Environmental Protection (Assessment of Site Contamination) Measure 1999</i>'; and</li><li>(vi) submission of an on-going groundwater monitoring and reporting program, based on the findings of (i) to (v) above.</li></ul>	4 September 2015
IR3	<p>The Licensee shall submit a Waste Acceptance procedure to ensure that non-conforming waste is not accepted and buried on site.</p>	4 July 2015



## 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 5.1.1(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 31 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.

<b>Table 4.2.1: Annual Environmental Report</b>		
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Format or form<sup>1</sup></b>
-	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
Table 2.2.1	Summary of inputs and outputs	
Table 2.3.1	Monitoring of ambient groundwater quality	
Table 2.4.1	Process monitoring	
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 and Licence limits and/or targets.
- 4.2.3 The Licensee shall submit the information in Table 4.2.3 to the CEO at the Contact Address according to the specifications in that table.



**Table 4.2.3: Non-annual reporting requirements**

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form <sup>1</sup>
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licensee from third parties

### 4.3 Notification

4.3.1 The Licensee shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.

**Table 4.3.1: Notification requirements**

Condition or table (if relevant)	Parameter	Notification requirement <sup>1</sup>	Format or form <sup>1</sup>
2.1.3	Calibration report	As soon as practicable.	None specified

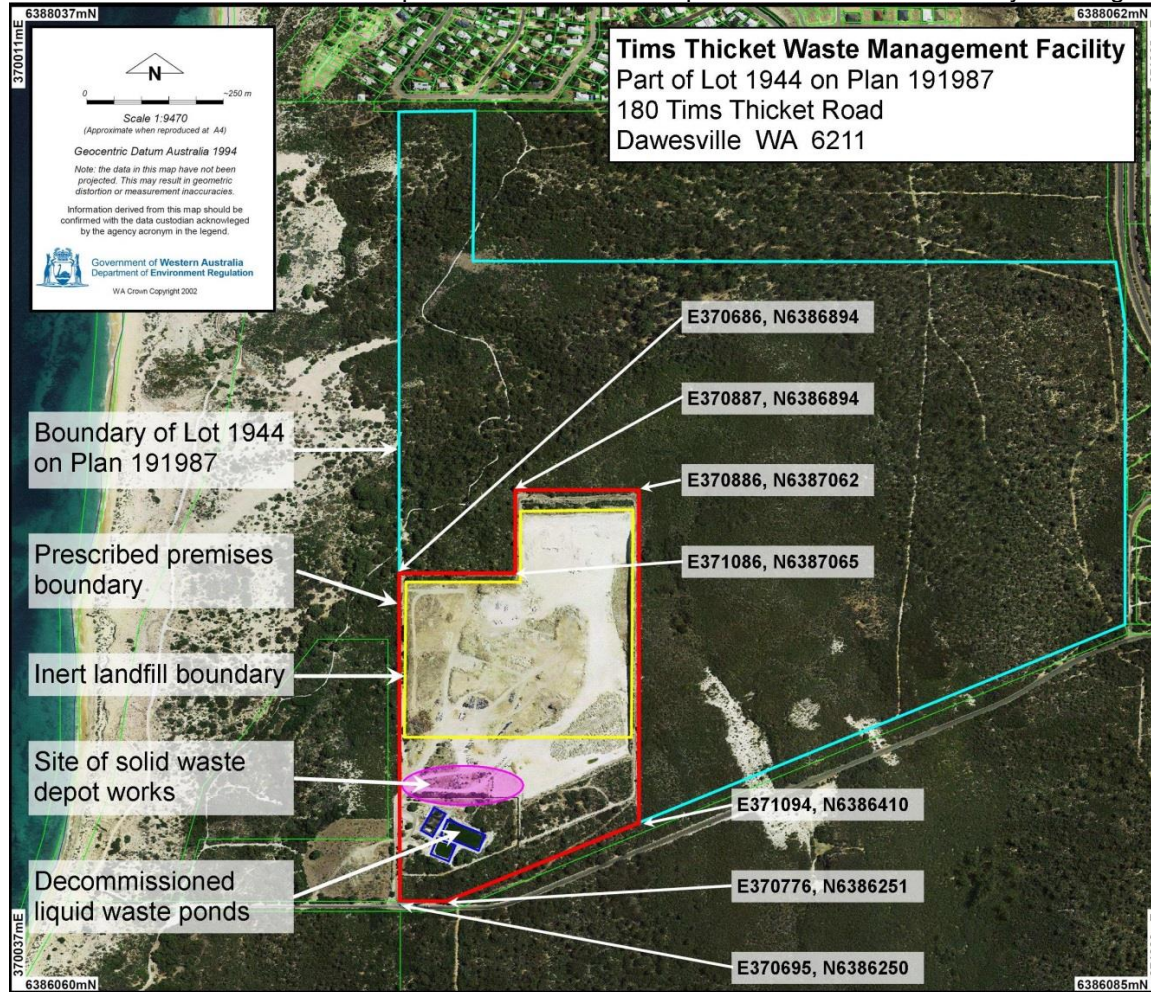
Note 1: Forms are in Schedule 2



## Schedule 1: Maps

### Premises map

The Premises is shown in the map below. The red line depicts the Premises boundary. The light blue depicts the boundary of Lot 1944 on Plan 191987.





### Map of monitoring locations

The groundwater monitoring locations are labelled in the map below.





## 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.

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### ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

#### SECTION A

##### LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period:	

##### 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"/>	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*

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**Proponent:** City of Mandurah

**Licence:** L6860/1995/11

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**Registered office:** 3 Peel Street  
MANDURAH WA 6210

**Premises address:** Tim's Thicket Waste Management Facility  
180 Tims Thicket Road  
DAWESVILLE WA 6211  
Being part of Lot 1944 on Plan 191987 within co-ordinates (MGA Zone 50) E370695, N6386250; E370686, N6386894; E370887, N6386894; E370886, N6387062; E371086, N6387065; E371094, N6386410; and E370776, N6386251 as depicted in Schedule 1.

**Issue date:** Friday, 9 November 2012

**Commencement date:** Thursday, 15 November 2012

**Expiry date:** Wednesday, 14 November 2029

### **Decision**

Based on the assessment detailed in this document, an amended licence has been issued. All relevant considerations have been taken into account in reaching this decision.

Decision Document prepared by: Cassie Bell  
Licensing Officer

Decision Document authorised by: Caron Goodbourn  
Delegated Officer



## Contents

Decision Document	1
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1 Purpose of this Document	2
2 Administrative summary	3
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### 1 Purpose of this Document

This Decision Document explains how the application has been assessed and determined and provides a record of the decision-making process and how relevant factors have been taken into account. Stakeholders should note that this Decision Document is limited to 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 type="checkbox"/>	
	Licence amendment <input checked="" type="checkbox"/>	
	Works Approval amendment <input type="checkbox"/>	
	Licence transfer <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	<b>Category number(s)</b>	<b>Assessed design capacity</b>
	63	50,000 tonnes per annual period
	13	10,000 tonnes per annual period
Application verified	Date: 31/05/2016	
Application fee paid	Not applicable	
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	Not applicable	
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Referral decision No: Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> * No <input type="checkbox"/> <i>*Specific amendment application not subject to Ministerial conditions</i>	Ministerial statement No: 375 EPA Report No: 751
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 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

City of Mandurah is the occupier of the Tim’s Thicket Waste Management Facility (Premises). The operations at the Premises are currently managed under contract by Cleanaway. The Premises is located south of Dawesville on Tim’s Thicket Road, 15 km south of Mandurah and covers an area of 28 hectares. The closest residence is located 1.2 km east of the premises boundary.

The Premises has been in operation since 1995 and until recently operated as both a Category 61 liquid waste facility and Category 63 Class I Inert Landfill. The site now accepts up to 50,000 tonnes of inert waste per annual period, which is used to backfill a limestone quarry. The Premises ceased accepting liquid waste (septage) in approximately December 2014.

The Licence was transferred from Transpacific Cleanaway Pty Ltd to the City of Mandurah in 2015.

#### Amendment application – Category 13

DER received an amendment application in May 2016 for the inclusion of category 13 (crushing of building material) to approve crushing of up to 10,000 tonnes of concrete on the premises per annual period (with a nominated throughput of 5,000 tonnes per annual period).

The licence already stipulates the landfill can receive inert waste and construction and demolition waste from building and development sites. A component of the landfill operation is the collection of waste concrete, which is stockpiled onsite awaiting crushing and re-use as a recycled aggregate. The crushing and screening activities will be initially undertaken on the already existing concrete stockpile, which is estimated to be 21,290 m<sup>3</sup> (including void space). This volume was determined by the City’s surveying team. Once complete, the newer stockpiles will then be processed.

Cleanaway intend to engage the services of a sub-contractor to supply a diesel powered jaw crusher (model unspecified) and hydraulic excavator to conduct the crushing operations onsite. The size and capacity of the machinery is currently unknown as it will depend on the machinery owned by the contractor employed. The size of the processed concrete will range from 50 – 300 mm (the majority of the crushed product will be of the 50 mm specification).

There will be no construction works required to commence crushing activities on the Premises, other than the delivery of crushing and loading equipment. The stockpiles will be processed in batches of 3,000 m<sup>3</sup> (including void space) as funding becomes available. It is unlikely that crushing activities will be undertaken for longer than one month in the year.

Cleanaway have an Environmental management Plan (EMP) to address the environmental risks of the proposal to crush concrete on the premises. The primary risks identified in the EMP relate to dust, noise and asbestos contaminated material (ACM); and secondary risks relate to spills and leaks and emissions to air (see summary table below).

Aspect	Risk	Score	Management	Score
Concrete Crushing	Spills and leaks	Moderate	Spill kits, training	Low
	Emissions to air	Low	Maintain vehicle service inspections	Low
	Dust	Low	Use designated roads and moderate speed Utilise dust suppression systems where necessary	Low
	Noise	Low	Restrict operating times of excessively noisy tasks Not using air brakes near residential areas	Low
	ACM	Moderate	Utilise licensed ACM removalist if any ACM or suspected ACM is identified	Low



In addition to the EMP, an Asbestos Management Plan (AMP) has also been prepared by Cleanaway in accordance with the DER's *Guidelines for Managing Asbestos at Construction and Demolition Waste Recycling Facilities*. Under the AMP, the Licensee will undertake testing of all processed stockpiles (14 samples per 1000m<sup>3</sup> of material) to ensure asbestos is not present before using the material.

The key emission risks related to the proposal's operational phase include fugitive dust (including asbestos) and noise. As there is no associated construction works required for this proposal, there is no assessment of risk for a construction phase. Details of the environmental risk assessment for this proposal, and all associated amendments made to the licence conditions are included in the Decision Table below.



## 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

<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Interpretation</b>	L1.1.2	<b>Operation</b> A definition has been added for "DER Material guideline: Clean Fill" as part of this amendment, as this term has been used in a note under Table 1.2.1 (see Premises operation section below for more details).  A definition has also been added to the licence for "recycled products" as part of this amendment, as this term has been added to the licence conditions (see Premises operation section below for more details).	
<b>General conditions</b>	N/A	There have been no changes to conditions in this section as part of this amendment.	





DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises operation	L1.2.1 (Table 1.2.1)	<p><b>Operation</b> Table 1.2.1 for the acceptance of wastes has been amended as part of this amendment as follows:</p> <ul style="list-style-type: none"> <li>Administrative corrections including the addition of a numbering system within the table for easier referencing, the removal of “tonnes” from the quantity limit column heading (the quantity limit for waste received for burial is not in tonnes), removal of the “1” in the specification heading (there is no note/reference under the table for this), and the removal of the word “inert” in the quantity limit in (a) as the limit applies to all wastes received;</li> <li>Addition of a specification for Clean Fill which explains that where the specifications in the DER Material guideline for Clean Fill are met, clean fill is not subject to the quantity limit in the table. It is acknowledged that raw/undisturbed clean fill will be received from time to time which will be suitable and necessary for cover or capping material and it is not DER’s intent to capture this purely as a waste.</li> <li>Addition of a new row for “contaminated solid waste”. It was noted that this was already listed in the Monitoring of inputs and outputs section of the Licence. This has therefore been added with the proviso that any contaminated solid waste must be accompanied by documentation (i.e. contaminant analysis from representative testing as per the Landfill Definitions) demonstrating suitability for disposal at the Class I inert landfill, prior to being accepted.</li> <li>Addition of quantity limit (b) which specifically applies to the receipt of Inert Waste Type 1 for crushing being capped at 10,000 tonnes, as per the licence amendment application (see Fugitive emissions and Noise sections for details).</li> </ul>	<p>“Material guideline: Clean fill” (Department of Environment Regulation, December 2014);</p> <p>“Landfill Waste Classification and Waste Definitions 1996” (Department of Environment, as amended)</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises operation	L1.2.3 (Table 1.2.2)	<p><b>Operation</b></p> <p>Table 1.2.2 for the processing of wastes has been amended as part of this amendment as follows:</p> <ul style="list-style-type: none"> <li>• Re-naming of “process limits” to “process controls” as it is considered that the requirements set out in the column are not technically ‘limits’.</li> <li>• Structural changes to the table to separate rows for process limits for receipt/handling/storage of waste (i.e. prior to landfilling or crushing) from the existing process limits for the landfilling of waste.</li> <li>• A number of process limits (a) – (d) have been added to the row for the receipt/handling/storage of waste, related to the inspections of loads for asbestos prior to acceptance. This includes initial inspection and driver questioning to classify the risk, directing the waste to an independent unloading area, comprehensive inspection of the waste, and rejection of waste if asbestos is detected. These specifications are key controls in accordance with the DER Asbestos Guidelines and also the Asbestos Management Plan submitted as part of the licence amendment application. See the Fugitive emissions section for more detail on the risk assessment supporting these conditions.</li> <li>• An additional process limit (e) has been added for the receipt/handling/storage of waste to require the removal of any putrescible wastes and other contaminants from the inert waste stream prior to crushing or landfilling. From the landfilling perspective this is essentially already a requirement in accordance with the Landfill Definitions, as the Premises is licenced as a Class I site for inert waste only. This process control is therefore added for clarification.</li> <li>• A row has been added for the process limits (j)-(m) for the crushing of inert waste. These controls have been set based on key commitments made in the Environmental Management Plan accompanying the licence amendment application, including the proposed location of crushing near the eastern wall of the quarry, only crushing within the hours of 7am – 4pm and the use of water sprays during crushing for the suppression of dust. See the Fugitive emissions and Noise sections for more detail on the risk assessment supporting these conditions.</li> </ul>	<p>“Guidelines for managing asbestos at construction and demolition waste recycling facilities” (Department of Environment and Conservation 2012);</p> <p>“Asbestos Management Plan Tims Thicket Concrete Crushing Operation” (Mandurah Cleanaway, March 2016);</p> <p>“Landfill Waste Classification and Waste Definitions 1996” (Department of Environment, as amended);</p> <p>“Environmental Management Plan Tims Thicket Concrete Crushing Operation” (Mandurah Cleanaway, March 2016)</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises operation	L1.2.8 (Table 1.2.3); L1.2.9;	<p><b>Operation</b></p> <p>Conditions 1.2.8 – 1.2.9 relating to final recycled products (drainage rock, road base and sand) from crushing operations have been added to the licence as part of this amendment. See the Fugitive emissions section for more detail on the environmental assessment supporting these conditions.</p> <ul style="list-style-type: none"> <li>Condition 1.2.8 (Table 1.2.3) specifies that recycled products should not contain more than 0.001%w/w of asbestos, in accordance with the DER Asbestos Guidelines. The term ‘recycled products’ has been defined in the licence to ensure it is clear that this limit only applies to recycled products for reuse, thus materials which fail to meet this requirement but are intercepted and transferred off the premises for disposal (see condition 1.2.9 below) would not be non-compliant against this limit.</li> <li>Condition 1.2.9 has been added to specify that material not meeting the limit in 1.2.8 must be immediately transferred offsite for disposal at an authorised facility. Transport of asbestos will need to meet the requirements in the Controlled Waste regulations. It is noted that the Asbestos Management Plan accompanying the licence amendment application states that such material could be “subject to further actions to remediate it” which is also stated in the DER Asbestos Guidelines; however the methods for doing so are not stated in the plan and therefore unable to be assessed by DER for risk. Simple dilution of wastes using other wastes to achieve criteria is not consistent with general principles of the Landfill Definitions.</li> </ul>	<p>“Guidelines for managing asbestos at construction and demolition waste recycling facilities” (Department of Environment and Conservation 2012);</p> <p><i>Environmental Protection (Controlled Waste) Regulations 2004;</i></p> <p>“Asbestos Management Plan Tims Thicket Concrete Crushing Operation” (Mandurah Cleanaway, March 2016);</p> <p>“Landfill Waste Classification and Waste Definitions 1996” (Department of Environment, as amended);</p>



<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Fugitive emissions</b>	L1.2.1 (Table 1.2.1 (b)); L1.2.3 (Table 1.2.2 (a) – (d), (j)-(m)); L2.2.1 (Table 2.2.1) L1.2.8 (Table 1.2.3); L1.2.9; L2.2.1 (Table 2.2.1); L2.4.1 (Table 2.4.1); L4.2.1 (Table 4.2.1)	<b>Operation</b> Appendix A contains the detailed environmental risk assessment for fugitive emissions associated with the proposal to introduce crushing and screening activities, including: (i) Fugitive emissions of particulates from crushing activities; (ii) Fugitive emissions of asbestos fibres from crushing activities; and (iii) Fugitive contamination of land and groundwater from leaks or spills.	
<b>Noise</b>	L1.2.1 (Table 1.2.1 (b)); L1.2.3 (Table 1.2.2 (k)); L2.2.1 (Table 2.2.1)	<b>Operation</b> Appendix A contains the detailed environmental risk assessment for noise emissions associated with the proposal to introduce crushing and screening activities.	
<b>Monitoring general</b>	N/A	There have been no changes to conditions in this section as part of this amendment.	



<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Monitoring of inputs and outputs</b>	L2.2.1 (Table 2.2.1)	<b>Operation</b> Table 2.2.1 for the monitoring of inputs and outputs has undergone changes as part of this amendment as follows: <ul style="list-style-type: none"><li>• The monitoring of solid waste inputs has been split between inputs to landfilling vs. inputs to crushing. This monitoring is to allow the comparison with the limits in Table 1.2.1 of the Premises operation section of the licence. See the Fugitive emissions and Noise sections for more detail on the environmental assessment supporting this monitoring;</li><li>• An additional column for “averaging period” has been added to specify that the period the monitoring relates to is the annual period (as defined in the Interpretation section of the licence), which will be of relevance for annual reporting.</li><li>• Additional detail has been added to the “Frequency” column for waste outputs, providing references to conditions where waste must leave the premises. This is to ensure that the monitoring doesn’t only capture wastes which are rejected from the premises at the outset, but also captures wastes which are removed from the site after being accepted (i.e. contaminants removed from inert wastes received, and material which has been crushed but exceeds the limit in condition 1.2.8 to qualify as a “recycled product”).</li></ul>	
<b>Ambient quality monitoring</b>	L2.3.1	<b>Operation</b> A minor administrative correction was made to condition 2.3.1, to remove the reference to recording and investigating “results that do not meet any target specified”, as there are no targets specified in this table.	



<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Process monitoring</b>	L2.4.1 (Table 2.4.1)	<p><b>Operation</b> A new “2.4 Process Monitoring” section has been added to the licence as part of this amendment due to the introduction of the new process of crushing on the Premises. Within this section, Condition 2.4.1 (Table 2.4.1) has been added to require the analysis of asbestos content within material that has been crushed, to allow for comparison with the limit in condition 1.2.8 (and subsequently determination on whether the material qualifies as a ‘recycled product’). Method/s of testing for asbestos shall be in accordance with the DER Asbestos guidelines, which are mirrored in the Asbestos Management Plan which accompanied the licence amendment application. See the Fugitive emissions section for more detail on the environmental assessment supporting this monitoring</p>	<p>“Guidelines for managing asbestos at construction and demolition waste recycling facilities” (Department of Environment and Conservation 2012);</p> <p>“Asbestos Management Plan Tims Thicket Concrete Crushing Operation” (Mandurah Cleanaway, March 2016)</p>
<b>Improvement</b>	N/A	There have been no changes to conditions in this section, due to being outside the scope of this licence amendment. These conditions may be revised at a later date subject to a more detailed review.	
<b>Records</b>	N/A	There have been no changes to conditions in this section as part of this amendment.	
<b>Reporting</b>	L4.2.1 (Table 4.2.1)	<p><b>Operation</b> Table 4.2.1 has undergone a change as part of this amendment to require the results of the new process monitoring (asbestos content analysis) to be provided in the Annual Environmental Report. This is to make the monitoring visible to DER and to allow comparison with the limit in condition 1.2.8 of the licence. It is also noted that the Monitoring of inputs and outputs already required in the table will inherently now include the additional monitoring added to that table as part of this amendment (i.e. monitoring of inputs to crushing). See the Fugitive emissions section for more detail on the environmental assessment supporting the reporting requirements.</p>	



<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Notification</b>	N/A	There have been no changes to conditions in this section as part of this amendment.	
<b>Licence Duration</b>	N/A	<p>A <i>Notice of amendment of licence expiry dates Section 59B(9) and Section 59(1)(k) Environmental Protection Act 1986 Licensed Prescribed Premises</i> (Notice) was given effect by the Director General on 29 April 2016. The Notice gave regard to the <i>Guidance Statement: Licence Duration</i>. The expiry date of Licence L6860/1995/11 was amended under the Notice from 14 November 2017 to 14 November 2029.</p> <p>The revised expiry date of the Licence does not provide unmitigated approval for operations at the Premises to continue until this time. Prescribed activities will be subject to ongoing review in accordance with the risk based regulatory framework and appropriate regulatory controls put in place commensurate to the risk posed by emissions from the Premises.</p>	<p><i>Notice of amendment of licence expiry dates Section 59B(9) and Section 59(1)(k) Environmental Protection Act 1986 Licensed Prescribed Premises</i> (DER, 29 April 2016)</p>



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
N/A	Application advertised in West Australian (or other relevant newspaper)	Application not advertised as this is not required for an amendment	N/A
15/06/2016	Copy of draft amendment provided to applicant for comment	<p>The Licensee provided correspondence to DER on 28/06/2016 outlining concerns regarding Table 1.2.2 now requiring the dampening of all incoming material subject to inspection regardless of whether it is received for landfilling (existing activity) or crushing (subject of amendment application).</p> <p>The Licensee requested the revision of this requirement, offered alternative structure of Table 1.2.2, and outlined the details of a range of mitigating factors to be considered by DER, including (but not limited to):</p> <ul style="list-style-type: none"> <li>- The premises does not and has never accepted asbestos, with incoming waste being from contractors only who are made aware of this;</li> <li>- The premises is not accessed by the general public;</li> <li>- The licensee will crush material already stockpiled (previously inspected) before accepting any new loads for crushing (likely to take several years);</li> <li>- All loads are inspected at the gatehouse and then again when unloaded at the tip face by a loader with driver remaining in the cab;</li> <li>- If evidence of asbestos is identified, material would be either immediately reloaded/rejected or licensed contractors called in to remove the material;</li> <li>- There is no permanent supply of water at the tip face;</li> </ul>	<p>The requirement to dampen all loads during the initial inspection process is a recommendation from the DER Asbestos Guidelines.</p> <p>It is acknowledged that the risk of inadvertent asbestos receipt on the Premises may be lower than other facilities, particularly due to there being no history of or approval for the acceptance of asbestos for landfilling, the fact that waste is brought to site by registered contractors only, and that all other measures in the DER asbestos guidelines appear to be followed.</p> <p>The environmental risk assessment has been altered with consideration to the above factors and it has been determined that the original requirement to maintain all incoming waste in a damp state during the initial inspection is not required at this Premises. The requirement has subsequently been removed.</p>





Date	Event	Comments received/Notes	How comments were taken into consideration
		<ul style="list-style-type: none"><li>- The Licensee considers that dust has never been an issue at the premises; and</li><li>- The Licensee still commits to dampening of wastes received which are intended for crushing.</li></ul>	In lieu of this, a specific requirement has also been added to the process controls for crushing/screening operations, to ensure that material is dampened prior to crushing and maintained in a damp state during the process.



## 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



## Appendix A

### Fugitive emissions risk assessment

Fugitive emissions to air and groundwater are correctly identified in the Environmental Management Plan accompanying the licence amendment application as principle emissions of concern for the proposal to undertake crushing and screening of inert wastes at the Premises.

The licence amendment application and supporting documents have been reviewed and it is considered that providing key commitments and the DER Asbestos Guidelines are adhered to, the amendment is suitable for granting subject to conditions. Qualitative risk assessments have been conducted for these emission types to explain the conditions which have been added to the licence as a result.

The risk assessments are broken down into the following four key areas of environmental risk:

- (i) Fugitive emissions of particulates from crushing activities;
- (ii) Fugitive emissions of asbestos fibres from crushing activities;
- (iii) Fugitive contamination of land and groundwater from leaks or spills.

#### ***(i) Fugitive emissions of particulates from crushing activities - Operations***

##### Emission Description

*Emission:* Fugitive emissions of dust from the extra truck and machinery movements on the Premises as a result of the additional inert waste being delivered to and moved within the premises. Dust emissions from the loading of material into the crushing equipment and crushing of the waste itself. Dust emissions from the movement and positioning of recycled product stockpiles.

*Impact:* Amenity impacts for nearby landowners (nearest receptor is approximately 1.2km away). Potential health impacts on staff, visitors and nearby land users where dust emissions are severe, including short-term respiratory impacts. Potential for smothering of surrounding vegetation in severe and persistent dust conditions resulting in reduced health or death.

*Controls:* Dust on the Premises is mitigated generally by the use of a water cart to keep roads damp when necessary. The additional inert waste received only represents a 20% increase on the waste already received and handled on the premises and may not represent a significant change in general dust emissions if handled in the same way. The waste is also intended to be crushed in 3,000 tonne batches. With a commitment to crush no more than 10,000 tonnes per annual period, this represents no more than 2 -3 distinct crushing events per year. The Licensee has submitted an Environmental Management Plan as part of the amendment application. Commitments made in this document include the use of waste mist/sprays during crushing and the ceasing of crushing where strong northerly or easterly winds in dry conditions occur.

##### Risk Assessment

*Consequence:* Minor

*Likelihood:* Possible

*Risk Rating:* Moderate

##### Regulatory Controls

Various licence conditions have been added within the Premises operation section of the licence as part of this amendment, to mirror the key commitments in the licence amendment application and the Environmental Management Plan submitted, as follows:

- L1.2.1 (Table 1.2.1 (b)) specifies the maximum limit of waste received for crushing to be 10,000 tonnes as per the commitment in the application. The assessment of risk is based on this minor increase in volumes coming to the Premises therefore an increase beyond this may be outside the approval being granted by this amendment.
- L1.2.3 (Table 1.2.2 (j)) specifies that crushing shall not occur if wind conditions will result in the release of dust beyond the boundary of the Premises.
- L1.2.3 (Table 1.2.2 (k)) specifies that crushing is only to be undertaken between 7am – 4pm Monday – Friday (as per the amendment application).



- L1.2.3 (Table 1.2.2 (l)) specifies that material should be dampened prior to crushing and maintained in a dampened state throughout the crushing process;
- L1.2.3 (Table 1.2.2 (m)) specifies that water sprinklers will be installed on dust emission ponds on crushing and screening equipment and used when crushing and screening occurs.
- L2.2.1 (Table 2.2.1) specifies that waste accepted for crushing shall be monitored. This monitoring is to support the limit in L1.2.1 (Table 1.2.1 (b)) by enabling comparison of actual receivals with this limit.
- L4.2.1 (Table 4.2.1) for the annual environmental report now inherently requires the reporting of the volumes of wastes accepted for crushing as monitored under condition L2.2.1 (Table 2.2.1).

There is also an existing condition in the Premises operation section of the licence which contributes to the mitigation of dust impacts off the Premises:

- L1.2.3 (Table 1.2.2 (g)) specifies that waste shall not be temporarily stored within 25 metres of the boundary of the Premises. This condition will inherently apply to the additional waste accepted for crushing.

#### Residual Risk

*Consequence:* Minor

*Likelihood:* Possible

*Risk Rating:* Moderate

The regulatory controls which have been set, which largely mirror the commitments made in the Environmental Management Plan and the amendment application, are considered to limit the overall risk of this activity to no higher than a 'moderate' level. Without these controls being set on the licence, if the Licensee was to decide not to operate in accordance with their plan and application details, the overall risk may increase. The above regulatory controls are therefore considered appropriate.

#### Reference documents

- "Guidelines for managing asbestos at construction and demolition waste recycling facilities" (Department of Environment and Conservation 2012);
- "Environmental Management Plan Tims Thicket Concrete Crushing Operation" (Mandurah Cleanaway, March 2016)

### **(ii) Fugitive emissions of asbestos fibres from crushing activities - Operations**

#### Emission Description

*Emission:* Fugitive emissions of asbestos fibres as a result of the additional inert waste being delivered to and moved within the premises, in the case that it is contaminated with asbestos and this is not detected before acceptance. Emissions of asbestos fibres could then potentially occur from the loading of material into the crushing equipment and the crushing of the waste itself would pose a very high risk. Emissions of asbestos fibres may also occur from the movement and positioning of recycled product stockpiles, and wide-spread secondary effects could occur with the products being distributed and/or sold for use off the Premises.

*Impact:* Potential health impacts on staff, visitors and nearby land users with potential long-term effects associated with exposure to asbestos in the dust (e.g. asbestosis and silicosis). Potential contamination of other inert waste stockpiles awaiting crushing and screening on the Premises with asbestos fibres, which could have immediate secondary impacts on staff involved in crushing and screening activities and more wide-ranging impacts on the users of the final products.

*Controls:* Dust on the Premises is mitigated generally by the use of a water cart to keep roads damp when necessary. An Asbestos Management Plan (in accordance with the DER Asbestos Guidelines) was submitted as part of the amendment application. Commitments made in this document include thorough inspections of incoming loads for asbestos before, during and after unloading, immediate removal and dampening of any loads where asbestos has been detected, and testing of recycled products to ensure that a limit of 0.001%w/w of asbestos is not exceeded. If asbestos is detected, the Licensee commits in their Environmental Management Plan to restrict people from entering the area and to engage a licenced asbestos removalist to conduct the



removal of asbestos, and prepare an incident report for the occurrence. During crushing, the Licensee intends to control dust with the use of water sprinklers on crushing/screening equipment and by keeping the loads in a damp state prior to and during crushing.

It is noted that the Licensee has not committed to the wetting down of incoming loads of waste during initial inspections for evidence of asbestos (i.e. prior to acceptance). The DER Asbestos Guidelines recommend all loads received be dampened and maintained in a dampened state during detailed inspection as a precaution in case asbestos is present; however it is noted that the risk of inadvertent asbestos receipt on this Premises is low due to there being no history of or approval for the acceptance of asbestos for landfilling, the fact that waste is brought to site by registered contractors only, and that all other measures in the DER asbestos guidelines appear to be followed.

#### Risk Assessment

*Consequence:* Major

*Likelihood:* Unlikely

*Risk Rating:* Moderate

#### Regulatory Controls

Various licence conditions have been added within the Premises operation section of the licence as part of this amendment, to mirror the key commitments in the licence amendment application and the Asbestos Management Plan submitted, as follows:

- L1.2.3 (Table 1.2.2 (a)) specifies that wastes coming in are to be inspected prior to acceptance and the driver questioned on the source. This is primarily to classify the risk of asbestos contamination in accordance with the DER Asbestos Guidelines.
- L1.2.3 (Table 1.2.2 (b)) specifies that loads of waste accepted are to be directed to an unloading area which is separate from the rest of the operations, to ensure waste does not have the ability to contaminate other wastes on site.
- L1.2.3 (Table 1.2.2 (c)) specifies the need to spread the waste over a sufficiently large area to conduct a detailed inspection for asbestos.
- L1.2.3 (Table 1.2.2 (d)) specifies that any load of waste where asbestos *is* detected shall be dampened and arrangements made immediately to remove the material from the premises. This is in accordance with the commitments made in the Environmental Management Plan submitted.
- L1.2.3 (Table 1.2.2 (j)) specifies that crushing and/or screening shall not occur if wind conditions will result in the release of dust from the activity/s beyond the boundary of the Premises.
- L1.2.3 (Table 1.2.2 (l)) specifies that material should be dampened prior to crushing and maintained in a dampened state throughout the crushing process.
- L1.2.3 (Table 1.2.2 (m)) specifies that water sprinklers shall be installed on dust emission points on crushing and screening equipment and operated whenever crushing and/or screening occurs.
- L1.2.8 (Table 1.2.3) specifies that any recycled product must not exceed the limit of 0.001%w/w of asbestos. This is in accordance with the DER Asbestos Guidelines.
- L1.2.9 specifies that any material not meeting the limit in L1.2.8 is to be removed from the premises as soon as possible.
- L2.2.1 (Table 2.2.1) already specifies that waste leaving the premises must be monitored; however additional text has been added to clarify that this monitoring is to include wastes leaving the premises under L1.2.2(e) and L1.2.9 due to asbestos contamination.
- L2.4.1 (Table 2.4.1) has been added for the monitoring of asbestos content in materials that have been crushed and/or screened. This is to support and enable comparison with the limit in L1.2.8. The method of monitoring is "in accordance with the DER Asbestos Guidelines" as it is acknowledged that various methods may apply and be appropriate depending on the type of product.
- L4.2.1 (Table 4.2.1) for the annual environmental report already requires the reporting of the volumes of wastes leaving the site, as monitored under condition L2.2.1 (Table 2.2.1). This now inherently includes wastes leaving the site due to asbestos contamination detected under the new licence conditions.



- L4.2.1 (Table 4.2.1) for the annual environmental report now also requires the reporting of the monitoring under L2.4.1 (Table 2.4.1) of asbestos contamination in crushed materials. The reporting condition provides visibility to DER of the monitoring results and therefore allows comparison with the limit under condition L1.2.8.

#### Residual Risk

*Consequence:* Major

*Likelihood:* Rare

*Risk Rating:* Moderate

The regulatory controls which have been set, which largely mirror the commitments made in the Asbestos Management Plan and requirements in the DER Asbestos Guidelines. These controls are considered to limit the overall risk of this activity to no higher than a 'moderate' level. Without these controls being set on the licence, if the Licensee was to decide not to operate in accordance with their commitments, the overall risk may move to 'high' due to the potential long-term health impacts associated with asbestos exposure. The above regulatory controls are therefore considered appropriate.

#### Reference documents

- "Guidelines for managing asbestos at construction and demolition waste recycling facilities" (Department of Environment and Conservation 2012);
- "Asbestos Management Plan Tims Thicket Concrete Crushing Operation" (Mandurah Cleanaway, March 2016);
- "Environmental Management Plan Tims Thicket Concrete Crushing Operation" (Mandurah Cleanaway, March 2016)

### ***(iii) Fugitive contamination of land and groundwater from leaks or spills- Operations***

#### Emission Description

*Emission:* Leaks or spills of hydrocarbons or other chemicals (i.e. coolant) from the equipment associated with the crushing and screening activities, such as from the failure of hoses or fittings.

*Impact:* Localised contamination of soils. There is the potential for these contaminants to be carried into shallow groundwater (as shallow as 3.5m below ground level) in the case of large spills.

*Controls:* There is a low chance of any spill or leak exceeding 50 litres. The Licensee proposes to ensure vehicles have spill kits, ensure staff are trained on spill management and ensure that a maintenance program is in place for pre-start inspections to ensure that all hoses and fittings are in good working order prior to starting up the equipment.

#### Risk Assessment

*Consequence:* Insignificant

*Likelihood:* Possible

*Risk Rating:* Low

#### Regulatory Controls

The Environmental Management Plan submitted by the Licensee is considered adequate. The general provisions of the *Environmental Protection Act 1986* regarding pollution and environmental harm will apply, as well as the *Environmental Protection (Unauthorised Discharges) Regulations 2004*.

#### Risk Assessment

*Consequence:* Insignificant

*Likelihood:* Possible

*Risk Rating:* Low

Given the low risk, it is not considered necessary to impose specific controls on the licence for the management of spills and leaks.



#### Reference documents

- “Environmental Management Plan Tims Thicket Concrete Crushing Operation” (Mandurah Cleanaway, March 2016)
- *Environmental Protection Act 1986* (general provisions);
- *Environmental Protection (Unauthorised Discharges) Regulations 2004*.

#### **Noise emissions risk assessment**

Noise can be a key emission risk for crushing operations. The licence amendment application and supporting documents have been reviewed and it is considered that providing key commitments are adhered to, noise is unlikely to be of significant concern to surrounding receptors.

#### ***Noise emissions from crushing and screening - Operations***

##### Emission Description

*Emission:* Noise emissions from the operation of crushing and screening equipment on the Premises. Fugitive emissions of noise from the extra truck and machinery movements on the Premises as a result of the additional inert waste being delivered to, moved within and positioned on the premises ready for crushing.

*Impact:* Amenity impacts for nearby landowners (nearest receptor is 1.2km away). Potential health impacts on staff, visitors and nearby land users where noise emissions are severe and consistent. Potential impacts on fauna living in surrounding vegetation.

*Controls:* The proposal to crush inert material is limited to 10,000 tonnes per annum which represents a 20% increase on the waste already received and handled on the premises and may not represent a significant change in general noise emissions from the Premises. The waste is also intended to be crushed in 3,000 tonne batches. With a commitment to crush no more than 10,000 tonnes per annual period, this represents no more than 2 -3 distinct crushing events per year and can therefore be considered to be a relatively small operation. Noise emissions are proposed to be handled through the limitation of operating hours between 7am and 4pm Monday – Friday, and the carrying out of the crushing close to the eastern wall of the quarry to deflect noise away from residential areas to the east. The eastern wall of the quarry is approximately 6m in height and the stockpile of existing waste is located immediately adjacent and beneath the height of the quarry wall.

##### Risk Assessment

*Consequence:* Minor

*Likelihood:* Possible

*Risk Rating:* Moderate

##### Regulatory Controls

Licence conditions have also been added within the Premises operation section of the licence as part of this amendment, to mirror the key commitments in the Environmental Management Plan accompanying the licence amendment application:

- L1.2.1 (Table 1.2.1 (b)) specifies the 10,000 tonne limit on wastes received for crushing. This limit represents the major control in place which will limit the intensity and frequency of noise emissions from the Premises. An increase beyond this may be outside the approval that is granted by this amendment.
- L1.2.3 (Table 1.2.2 (k)) specifies that crushing is to be limited to within the hours of 7am and 4pm on weekdays, as per the commitments in the Environmental Management Plan.

The detection of unforeseen noise issues is likely to occur as a result of complaints. The Licence contains an existing condition (L4.1.3) for the recording of complaints and actions undertaken in response to them, and existing condition L4.2.1 already requires the reporting of these complaints to DER.

In addition to the controls above, the premises is also required to comply with the *Environmental Protection (Noise) Regulations 1997*.



Risk Assessment

*Consequence: Minor*

*Likelihood: Possible*

*Risk Rating: Moderate*

The regulatory controls set, which largely mirror the commitments made in the Environmental Management Plan and amendment application, are considered to limit the overall risk of this activity to no higher than a 'moderate' level. The noise regulations may also be used to regulate the noise emissions from the Premises. The regulatory controls are considered appropriate to manage the risk.

Reference documents

- "Environmental Management Plan Tims Thicket Concrete Crushing Operation" (Mandurah Cleanaway, March 2016)
- *Environmental Protection (Noise) Regulations 1997.*