Government of Western Australia
Department of Environment Regulation

Licence

Environmental Protection Act 1986, Part V

Licensee: Earthcare Recycling Pty Ltd

Licence: L8979/2016/1

Registered office: c/o Complete Business Consultants
47A Kirwin Street
FLOREAT WA 6014

ACN: 092 525 678

Premises address: Earthcare Recycling Pty Ltd
426 Great Northern Highway
MIDDLE SWAN WA 6056
Being part Lot 23 on Diagram 82744.

Bound by the co-ordinates:

Point	Easting	Northing
1	406955.8	6475109.8
2	407069.0	6475110.4
3	407085.0	6475097.0
4	407091.0	6475061.0
5	407064.0	6475061.0
6	407064.0	6475044.0
7	407009.0	6475040.0
8	406999.3	6475058.1
9	406999.3	6475089.4
10	406987.4	6475089.3
11	406987.4	6475083.2
12	406975.3	6475083.2
13	406975.3	6475096.9
14	406955.8	6475088.2

As depicted in Schedule 1

Granted: Thursday, 9 March 2017

Commencement date: Thursday, 9 March 2017

Expiry date: Tuesday, 8 March 2022

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	50,000 tonnes per annual period
62	Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or re-use	500 tonnes or more per year	55,000 tonnes per annual period

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

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Alan Kietzmann
MANAGER LICENSING (WASTE INDUSTRIES)
Officer delegated under section 20
of the *Environmental Protection Act 1986*

Contents

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
Earthcare Recycling Pty Ltd (Earthcare) currently operate a construction and demolition waste recycling facility within a portion of Lot 23 (No 426) Great Northern Highway, Middle Swan. Wastes are brought on site in skip bin from residential construction sites. Earthcare is applying for a licence as they have stated that in their application that they are approaching the thresholds for a prescribed premises. As the premises is already in operation, a works approval has not been issued for the premises. A retrospective Planning Approval was granted by the City of Swan on 6 January 2016 to operate subject to conditions including operating hours. Lot 23 is zoned 'Rural' under the Metropolitan Region Scheme and 'Swan Valley Rural' under the City of Swan Local Planning Scheme No. 17 and part of Additional Use Area No. 57.

Earthcare accepts construction and demolition (C&D) waste, clean fill and small amounts of putrescible waste (paper/cardboard) for storage prior to removal offsite to recyclers or end users. Earthcare also crush and screen C&D material to convert it into drainage rock or road base. Screening operations are expected to occur a few hours on one to two days per week, and crushing is expected to operate a number of days per month.

According to supporting information provided in the application, wastes are only brought onsite by Earthcare employees and wastes are derived from construction sites that postdate 2003 in order to reduce asbestos acceptance risk.

Location & Siting
The nearest residential receptors are a number of houses located 120 metres (m) to the west and south west of the premises along Great Northern Highway. Residents are also located approximately 300 m east of the premises across the railway line. Swan Christian College is located 230 m south west and a church is located 270 m north. Immediately adjacent to the west of the premises is some light industrial activities, and the surrounding land is predominately rural residential, vineyards and tourist attractions. The nearest residential development is the suburb of Middle Swan located approximately 1 kilometre (km) south.

To the eastern boundary of the premises is Strelley Brook and an associated floodplain which extends into a portion of the premises. The *Strelley Brook Flood Analysis* (Emerge Associates 2013) identified that approximately 50 m of the eastern portion of the Premises may be flooded to a depth of up to 1 m in a 100 year ARI flood event. For the majority of the premises, flooding is likely to be less than 0.25 m in depth.

The vegetation associated with Strelley Brook and the floodplain is designated as Bush Forever site 302, as classified under the Department of Planning's State Planning Policy 2.8, *Bushland Policy for the Perth Metropolitan Region*. The premises boundary is at least 40 m west of the mapped extent of Bush Forever Site 302.

The Department of Water's Perth Groundwater Atlas indicates that groundwater in the area is found at approximately 3.5 metres below ground level. The salinity of the groundwater is 500-1000 mg/l TDS which is considered to be marginal.

The premises is classified under the Contaminated Sites Act 2003 as '*possibly contaminated – investigation required'.*

The licences and works approvals issued for the Premises are:

Instrument log		
Instrument	**Issued**	**Description**

L8979/2016/1	09/03/2017	New Licence

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:

'Acceptance Criteria' has the meaning defined in Landfill Definitions;

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

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

'anniversary date' means the 1 January of each year;

'Annual Audit Compliance Report' means a report in a format approved by the CEO as presented by the Licence Holder or as specified by the CEO from time to time and published on the Department's website;

'annual period' a 12 month period commencing from 1 January to 31 December;

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

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

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

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

'Attachment 3' means Attachment 3 of this Licence unless otherwise stated;

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

'CEO' for the purpose of notification means;

Chief Executive Officer
Department Div.3 Pt.V EP Act
Locked Bag 33
CLOISTERS SQUARE WA 6850

'classified load' means the classification of waste loads during acceptance and post acceptance based on the risk of waste material containing asbestos or ACM and through visual inspection. Classification of waste loads shall be undertaken in accordance with the provisions outlined in Section 3.3 and 3.4 DER Asbestos Guidelines;

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

'Compliance Report' means a report in a format approved by the CEO as presented by the Licensee or as specified by the CEO from time to time and published on the Department's website.

'construction and demolition waste' has the meaning defined in Landfill Definitions;

'damp' means moist to the touch;

'Department' means the department established under s.35 of the Public Sector Management Act 1994 and designated as responsible for the administration of Division 3 Part V of the Environmental Protection Act 1986;

'DER' means the Department of Environment Regulation;

'DER asbestos guidelines' means document titled "Guidelines for managing asbestos at construction and demolition waste recycling facilities", published by the Department of Environment and Conservation, 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 Landfill Definitions;

'Inert Waste Type 2' has the meaning defined in 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 L8979/2016/1 and issued under the Act;

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

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

'Putrescible' has the meaning defined in Landfill Definitions;

'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; and

'Schedule 1' means Schedule 1 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.

1.2 Premises operation

1.2.1 The Licence Holder shall only accept 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	Specification [1]
Clean Fill (as defined in the Landfill Definitions)	20,000m^3 per annual period	Waste containing visible asbestos or ACM shall not be accepted
Inert Waste Type 1	35,000m^3 per annual period	
Inert Waste Type 2	500m^3 per annual period	Tyres and Plastics only
Putrescible waste (including green waste)	500m^3 per annual period	Paper, cardboard and timber only

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

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

1.2.3 The Licence Holder shall ensure that any waste that does not conform to the waste acceptance criteria in Table 1.2.1 due to asbestos content, is covered or bagged and kept within a clearly identified, labelled, segregated and secure container prior to being removed off site to an appropriate authorised facility within 48 hours.

1.2.4 The Licence Holder must advise all source material providers that asbestos or potential ACM is not accepted at the Premises.

1.2.5 The Licence Holder must include a 'no asbestos' clause in all contracts with all source material providers.

1.2.6 The Licence Holder must maintain a clearly visible sign saying 'no asbestos' at the entry to the Premises.

1.2.7 The Licence Holder must visually inspect all loads of waste when they arrive at the Premises prior to unloading to determine the risk of a load containing asbestos or ACM and each load shall be classified in accordance with the risk classification procedure outlined in Section 3.3 of the DER Asbestos Guidelines as per Attachment 1 (Classified Load).

1.2.8 Where the inspection required by condition 1.2.7 confirms that the load contains asbestos or ACM, the Licence Holder must:
(a) reject the waste for acceptance;
(b) maintain accurate records of all the rejected loads on the Premises and the documentation must be made available to DER officers upon request; and
(c) record the details of the waste source, material carrier, registration number of the vehicle and date of rejection.

1.2.9 The Licence Holder shall direct each accepted and Classified Load to an unloading area at the site for further inspection. The unloading area shall be appropriately designed and constructed to ensure the waste will not mix with other waste.

1.2.10 The Licence Holder shall dampen all Classified Loads prior to unloading and maintain the waste in a damp state throughout the inspection process using appropriate dust suppression measures.

1.2.11 The Licence Holder must continue to visually inspect waste on the Premises at all stages of the storage, sorting and screening process. Suspect asbestos identified at any stage of the process must

be handled in accordance with the high risk load procedure outlined in section 3.4 of the DER Asbestos Guidelines, as per Attachment 2.

1.2.12 The Licence Holder must maintain waste and processed waste on the Premises in at least two separate stockpile areas for unprocessed waste and processed waste tested for ACM and:
(a) unprocessed waste and processed waste areas must be kept clearly separated at a minimum 3 m distance;
(b) processed waste tested for ACM and processed waste awaiting testing for ACM must be clearly separated by a minimum 3 m distance OR clearly delineated and separated with impermeable barriers; and
(c) clearly visible and legible signage must be erected on individual stockpiles to clearly identify and delineate tested processed waste, untested process waste and unprocessed waste.

1.2.13 The Licence Holder shall ensure that the asbestos content of any recycled output originating from Inert Waste Type 1 does not exceed the contamination limit of 0.001% w/w for asbestos (in any form).

1.2.14 The Licence Holder shall ensure that recycling outputs originating from Inert Waste Type 1 are sampled and tested in accordance with the DER Asbestos Guidelines, as outlined in Attachment 3.

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

Table 1.2.2: Waste processing

Waste type	Process(es)	Process limits
Clean Fill	Receipt, handling, processing and storage prior to removal offsite	• No waste material to be landfilled (buried) on site • All processing, storage and containment to be maintained in areas designated in the 'Site Map' in Schedule 1. • Authorised to only crush up to 50,000 tonnes per annual period. • All loads must be wet down prior to loading and unloading. • Material being processed through crushing and screening equipment is to be maintained in a damp state to prevent dust emissions. • Processing of C&D wastes shall cease during weather conditions where dust emissions cannot be controlled by the relevant infrastructure specified in Table 1.2.3. • Material stockpile heights to not exceed the height of the noise bunds.
Inert Waste Type 1		
Inert Waste Type 2	Receipt, handling and storage prior to removal offsite	• Inert Waste Type 2 to be stored in bins on a hardstand outside of flood prone areas • Putrescibles to be stored on an elevated bunded hardstand • Wastes (excluding large timber pieces) must be covered with a lid or weighted shade cloth at the end of each day. • Less than 100 tyres are to be stored on the premises at any time.
Putrescibles		

1.2.16 The Licence Holder shall ensure that the infrastructure or equipment specified in Table 1.2.3 is installed and operated in accordance with the specification of that table and located in the area depicted in the Site Map in Schedule 1.

Table 1.2.3: Infrastructure and equipment requirements	
Item	**Specification**
Operational area	Minimum of 200 mm crushed compacted road base covering the whole of the Premises. The integrity of the compacted road base must be maintained at all times.
Putrescible Storage area	Putrescible waste storage area to consist of a concrete hardstand The integrity of the storage areas must be maintained at all times.
Storage bins	The integrity of storage bins must be maintained at all times.
Noise bund	Greater than or equal to 4m in height above ground level of the crusher. To be located in the area depicted in the Site Map in Schedule 1.
Sprinkler system	Maintain an operational sprinkler system capable of wetting down hardstands, stockpiles and noise bund.
1 x RM90 Impactor (crusher)	To be located in the 'processing equipment' area depicted in the Site Map in Schedule 1, and within 5 metres of the noise bund. No tonal alarms are to be operated within the Premises. To be maintained to manufacturers specifications.
1 x Volvo L70C loader (attenuated)	
Screener	
Komatsu Hybrid Excavator (HB215LC)	
Wastewater pond with sedimentation trap	Pond constructed with in-situ material for basin and deep rock pitching for spillways. Dimensions of 11 m x 18.5 m x 1.74 m and a capacity of 169 m^3 excluding freeboard Freeboard of 500 mm to be maintained at all times. To contain a 1 in 100 year (24 hour) ARI flood event.
Perimeter fencing	1.8m high and suitable to retain windblown litter within the premises.

1.2.17 The Licence Holder shall use a sprinkler system on a daily basis as required to ensure stockpiles and the noise bund are stabilised and do not cause dust lift-off.

1.2.18 The Licence Holder may only operate during the hours of 7am to 5pm Monday to Saturday.

1.2.19 The Licence Holder shall implement the following security measures at the site:
(a) maintain suitable fencing to prevent unauthorised access to the site;
(b) ensure that 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.

2 Monitoring

2.1 Monitoring of inputs and outputs

2.1.1 The Licence Holder shall undertake the monitoring in Table 2.1.1 according to the specifications in that table.

Table 2.1.1: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Waste Inputs	Clean Fill, Inert Waste Type 1, Inert Waste Type 2, Putrescible	m^3	N/A	Each load arriving at the Premises
Waste Outputs	Waste Type as defined in the Landfill Definitions			Each load leaving or rejected from the Premises
Processed Waste	Crushed and screened products			Each load leaving the Premises

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 Licence Holder must submit to the CEO within 30 calendar days after the Anniversary Date, an Annual Audit Compliance Report indicating the extent to which the Licence Holder has complied with the Conditions in this Licence for the Annual Period.

3.1.3 The Licence Holder 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 Licence Holder shall submit to the CEO an Annual Environmental Report within 30 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

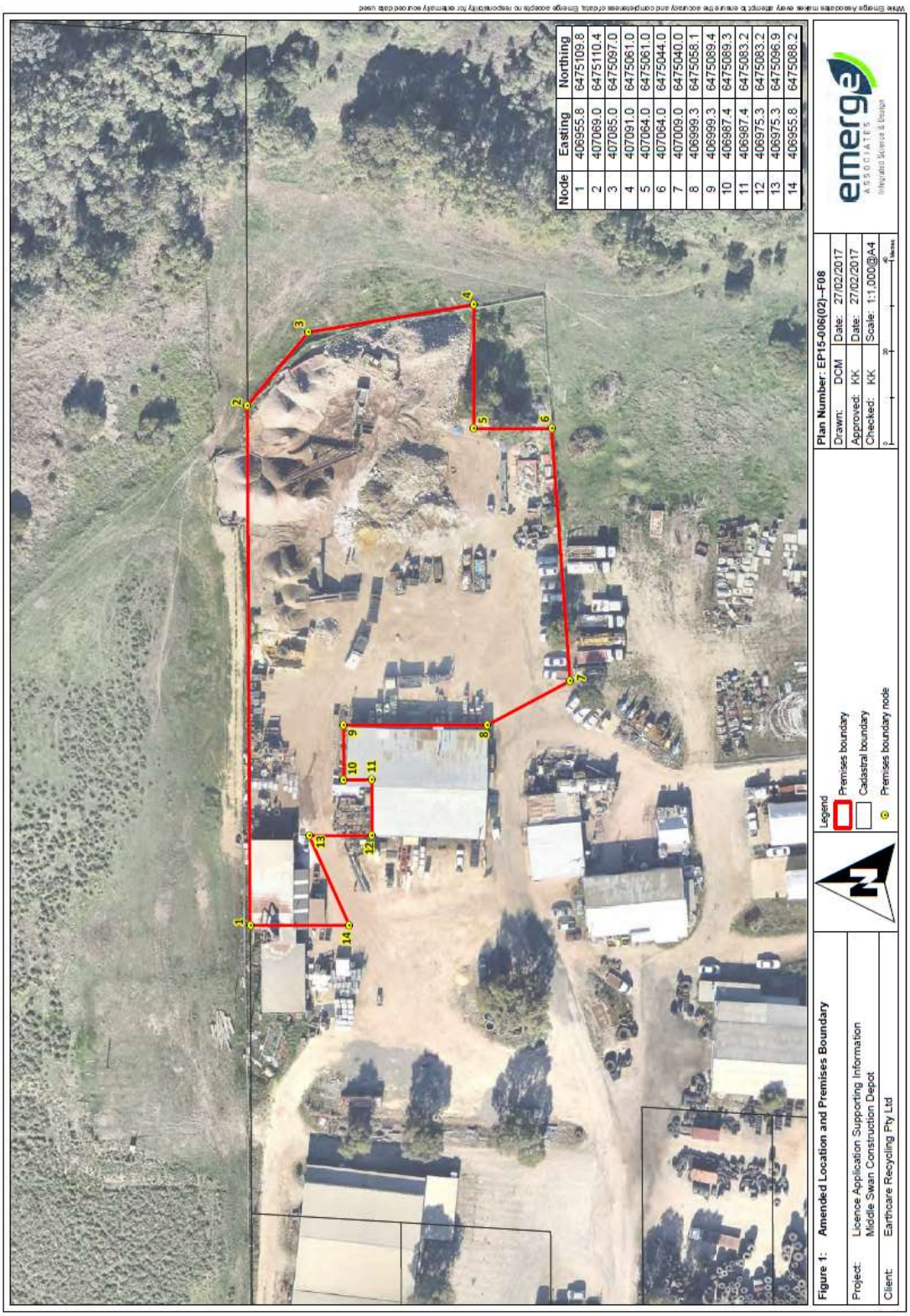
Condition or table (if relevant)	Parameter	Format or form
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
2.1.1	Inputs and Outputs	
3.1.2	Compliance	Annual Audit Compliance Report (AACR)

3.1.3	Complaints summary	None specified

Schedule 1: Maps

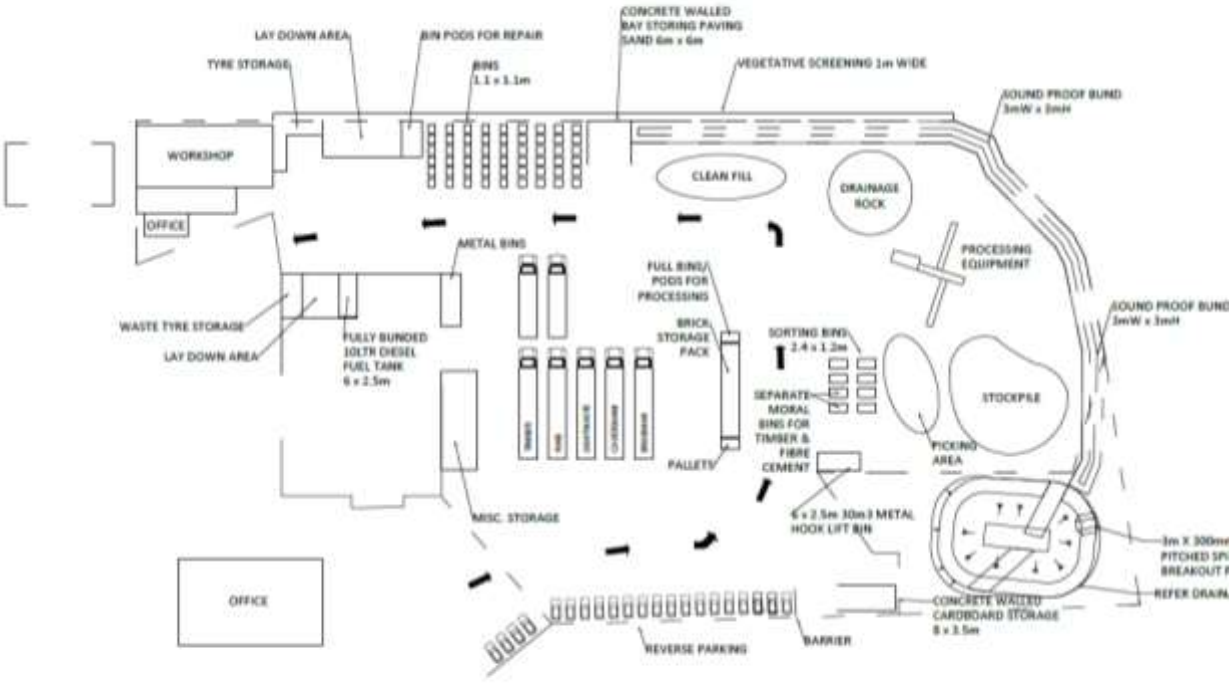
Premises map

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



Site Map

The location of the equipment and activities at the premises is shown in the map below



Attachment 1: Section of 3.3 of the DER Asbestos Guidelines (page 10 and11)

- Ensuring a "no asbestos" clause is included in any contracts with C&D waste suppliers;
- Installing a clearly visible sign saying "No Asbestos" is present at the entry to the facility;
- Establishing a system to record the details of loads arriving/received at the site which have been found to contain asbestos.

DEC has a supply of brochures that outline the rules on disposal of asbestos loads that can be handed to customers. Please contact DEC's Waste Management Branch on (08) 6467 5323 for copies.

3.3 Acceptance procedures

When waste arrives at the recycling facility, acceptance procedures must serve to confirm that the characteristics of the waste are consistent with the waste types permitted by the Part V licence and to determine the risk of the load containing asbestos.

To follow on from the pre-acceptance procedures, all persons bringing waste onto the premises must be asked to sign a declaration or provide a 'customer warranty' on a vehicle load specific basis confirming that their load is free from asbestos. The associated documentation should be retained on the premises and be available for DEC to inspect Where an individual is not prepared to sign this disclaimer or provide such a warranty the load shall be refused entry.

All loads must be visually inspected when they arrive at the recycling site. Where the inspection identifies that the wastes are not permitted by the licence and/or asbestos is visually identified in the load it shall be rejected for acceptance. A record of all rejected loads must be maintained on the premises and be available for DEC to inspect. As a minimum, a record must be made of the waste producer, waste carrier, registration number of the vehicle and the date of rejection.

The risk of a load containing asbestos is related to the type and source of the waste. In general, buildings and structures constructed after 1990 are unlikely to have asbestos containing materials within them, whereas buildings and structures constructed before this date may have been built using asbestos containing materials.

Because large buildings and structures undergo regulated asbestos removal programs and inspections before they are demolished the probability of asbestos being present in the demolition debris should be low. However, a risk of contamination can remain from asbestos formwork embedded or attached to concrete columns that cannot be readily identified through the asbestos clearance certification processand from asbestos piping from reclaimed road, car park areas and water supply systems.

It is also common for mixed waste from unknown sources, particularly those in skip bins or from small-scale demolition or refurbishment activities to contain amounts of asbestos waste. These sources must be considered high risk.

To determine the risk of an incoming load containing asbestos the gatehouse operator shall establish:

- The source of the load including the site location and if possible the age of any building or structure from which the C&D waste originated;

- The content/waste types within the load; and
- The type of load.

Where the source of the load can clearly be determined to be a building or structure constructed after 1990 then the load can be considered to represent a low risk of asbestos contamination and managed as outlined in the following section. Where the waste originates from a building constructed before 1990 or there is uncertainty over this issue, the risks associated with asbestos in the load must be established in line with the Risk Classification Matrix below.

Once classified, each load must be directed to the appropriate area for unloading and further inspection in line with the following sections.

Risk Classification Matrix			
	Type of load		
Material Type	**Commercial**	**Public, utes, cars and trailers***	**Skip bins**
Clean Concrete (without formwork)	Low	High	High
Clean Brick	Low	High	High
Clean Bitumen / Asphalt	Low	High	High
Mixed Construction waste	High	High	High
Mixed Demolition waste	High	High	High

* if it is possible to view the entire load of incoming C & D material (eg a small trailer with a shallow load, then consideration may be given to classifying these loads as low risk
(Risk Matrix Classification *adapted from WorkSafe Victoria 2006 and WMAA 2009*)

3.4 Load inspection after acceptance

Each accepted and classified load shall be directed to an unloading area at the site which is appropriately designed and constructed to ensure the waste will not mix with other waste. Where feasible, separate unloading areas shall be provided for low risk and high risk wastes.

All loads shall be dampened prior to unloading and maintained in a dampened state throughout the inspection process. Operators will need to ensure there are adequate facilities on the premises to achieve this.

Low risk load procedure

Loads classified as "low risk", must be visually inspected while the material is being unloaded to determine whether any asbestos can be identified.

If suspect fibrous asbestos (FA) or asbestos fines/fibres (AF) are detected, the load must be isolated, kept wet and once appropriately contained in accordance with the Asbestos Factsheet in Appendix A, redirected to an appropriately authorised disposal facility. If suspect ACM is identified, the load must be reclassified as "high risk" and continue to be processed in accordance with the high risk procedure below. Where the visual inspection confirms that the

Attachment 2: Section of 3.4 of the DER Asbestos Guidelines (page 11and 12)

- The content/waste types within the load; and
- The type of load.

Where the source of the load can clearly be determined to be a building or structure constructed after 1990 then the load can be considered to represent a low risk of asbestos contamination and managed as outlined in the following section. Where the waste originates from a building constructed before 1990 or there is uncertainty over this issue, the risks associated with asbestos in the load must be established in line with the Risk Classification Matrix below.

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All loads shall be dampened prior to unloading and maintained in a dampened state throughout the inspection process. Operators will need to ensure there are adequate facilities on the premises to achieve this.

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Loads classified as "low risk", must be visually inspected while the material is being unloaded to determine whether any asbestos can be identified.

If suspect fibrous asbestos (FA) or asbestos fines/fibres (AF) are detected, the load must be isolated, kept wet and once appropriately contained in accordance with the Asbestos Factsheet in Appendix A, redirected to an appropriately authorised disposal facility. If suspect ACM is identified, the load must be reclassified as "high risk" and continue to be processed in accordance with the high risk procedure below. Where the visual inspection confirms that the

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load is clear of suspect ACM, FA and AF, the load may then be added to the waste stockpiles awaiting further processing eg crushing and screening.

High risk load procedure

Loads classified as "high risk" must be unloaded and spread over a sufficiently large area to enable a comprehensive visual inspection of all sides of the material to be undertaken. One method of achieving this is to spread the material to a depth of less than 30cm and to turn over the material with the use of an excavator or similar. Where appropriate, larger sections of concrete should be inverted to permit a visual check for embedded or underlying asbestos product debris.

If suspect FA or AF are detected, the load must be isolated, kept wet and once appropriately contained in accordance with the Asbestos Factsheet in Appendix A, and redirected to an appropriately authorised disposal facility.

Where suspect ACM is identified within a load and is not capable of being easily removed by hand, the load must be rejected and should be isolated, kept wet and once appropriately contained in accordance with the Asbestos Factsheet in Appendix A, and redirected to an appropriately authorised disposal facility.

Where suspected ACM fragments capable of being easily removed by hand are identified in a load, the suspect ACM must be removed from the load and either:

1. Appropriately isolated and covered for asbestos testing. If testing of representative samples confirms the material is ACM it must be redirected to an appropriately authorised disposal facility. If testing confirms the material is not ACM the waste can be added to the stockpile awaiting further processing; or

2. Assumed to be ACM and redirected to an appropriately authorised disposal facility.

All suspected or assumed ACM must be segregated. Material must be clearly labelled, kept secure and sufficiently contained to prevent the release of asbestos including wind blown fibres.

Once all suspected or assumed ACM has been removed from a load in line with the above procedure the residual waste can be added to the stockpile awaiting further processing.

Records must be kept to ensure that the process from receipt of C&D material to the completion of the unloading procedure is auditable and that any loads found to contain suspect asbestos can be traced back to the customer and originating site. Through Part V licence conditions, DEC will require records of loads found to contain asbestos and action taken by the C&D recycler to address this issue with the customer, to be submitted on a regular basis. DEC will take follow up action with customers delivering asbestos containing waste to the premises as necessary.

Attachment 3: Section of 3.4 of the DER Asbestos Guidelines (page 15 - 20)

4 Monitoring and Testing

Monitoring must be undertaken to confirm that risk management measures are effectively meeting their objectives. This shall include qualitative and quantitative monitoring and product testing.

4.1 Qualitative monitoring

Site operatives must undertake visual inspections whilst the facility is operational to ensure that fugitive emissions of dust are being adequately controlled and are not being carried outside of the premises. Where fugitive dust releases are identified their source must be investigated and all reasonable and practicable measures implemented to prevent or minimise the release.

Where risk management measures are ineffective or likely to be ineffective at preventing visible dust crossing the site boundary, for example during adverse weather conditions, waste processing activities must cease until additional measures have been put in place to prevent the discharge or until the adverse weather conditions have passed.

4.2 Quantitative environmental monitoring

On some sites it may be necessary for ambient dust or asbestos fibre air monitoring to be undertaken to provide further confidence in risk management measures. Such monitoring may be required where recycling sites are located in close proximity to sensitive receptors, are within a relevant Environmental Protection Policy area or have a poor compliance history relating to fugitive dust control. Where quantitative dust monitoring is not proposed, the proponent/operator must provide a risk based justification as to why it is not considered necessary at their premises.

Dust monitoring provides a useful surrogate measure to evaluate the potential generation and distribution of airborne dust and asbestos fibres and will normally be sufficient on most sites. Dust monitoring equipment must demonstrate that dust levels are kept as low as reasonably possible. Tapered Element Oscillating Microbalance (TEOM) (or equivalent) equipment is preferred to provide continuous and accurate perimeter air monitoring for community protection. Any site perimeter monitoring for this purpose should be conducted to ensure compliance with the National Environmental Protection Measure (NEPM) ambient air 24 hour PM_{10} goal of 50 ug/m^3.

Where air quality monitoring is required, an air quality monitoring and reporting strategy must be developed by a person suitably experienced in dust/asbestos sampling and exposure assessment and any associated analysis be undertaken by a laboratory accredited by NATA for this purpose.

4.3 Product testing and supply

To ensure that recycled products have been produced to the required specification in relation to asbestos content it is necessary for product testing to be undertaken. The testing procedures detailed in this section have application for the three main recycled products:

1. Recycled drainage rock 20-27mm;

2. Recycled sand, screened to <10mm; and
3. Recycled road-base, <19mm.

The testing must be documented as outlined under Section 5.3.

Product specification

To ensure the health of those using or coming into contact with recycled C&D products is protected, the asbestos content (in any form) of any recycled products must not exceed 0.001% asbestos weight for weight (w/w).

Inspection and sampling requirements

All types of recycled product must be inspected and/or sampled and tested for ACM, FA and AF, as outlined below. Inspections and sampling may be undertaken by staff employed by the licensee as long as they have received the required asbestos training for operational staff set out in section 5.2.

ACM and FA are subject to visual inspection and sampling procedures since they are larger in size (>7mm) and AF (<7mm) is assessed by submitting samples for laboratory analysis.

Recycled products may be sampled from conveyors or stockpiles. Whichever approach is adopted, the operator will need to ensure that they have appropriate systems in place to allow them to identify where in the product stockpiles each sample is from to allow further testing or separation to occur if required.

Stockpile inspection and sampling

In the case of recycled drainage rock and recycled road-base a visual inspection should be undertaken in a systematic grid fashion over the any new stockpile material to identify any suspect asbestos material.

No sampling is required for recycled drainage rock, other than to determine by laboratory analysis if necessary whether a suspect fragment is asbestos.

For recycled road-base and screened sand, sampling is necessary and must be spread evenly over the whole stockpile surface or samples may be taken at regular intervals (as per conveyor sampling) during construction of the stockpile. Suspect asbestos material or areas must be targeted for sampling.

Sampling of road base and screened sand products must occur at a minimum rate of 40 locations per 4000 tonnes or 14 samples per 1000m^3 of product.

Conveyor sampling

Sampling of road base and screened sand products must occur at a minimum rate of 1 sample per 70m^3 of a product output. Suspect asbestos material or areas must be targeted for sampling.

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Sample treatment

Each sample collected must be at least 10 litres in volume and then be divided into 2 size fractions (>7mm and <7mm) in the field by sieving though a 7mm screen or spread out for inspection on a contrasting colour fabric. The >7mm fraction should be examined for any suspect asbestos material and this be retained to calculate the level of contamination.

The <7mm fraction will need to be a minimum 500 ml, be wetted, and submitted for laboratory analysis. This sample size is considered necessary to improve the limit of detection for asbestos in the analysis procedure.

Reduced Sampling Criteria

Once premises have demonstrated that their procedures are able to consistently produce recycled product that meets the product specification and undertake their activities to a high standard, DEC may authorise a reduced product testing rate including down to 5 locations per 4000 tonnes (1 sample per 600m^3) of product.

The criteria that DEC will use to consider and determine a reduction in product sampling frequency are:

1. Activities at the premises have been validated through a DEC inspection or audit to comply with these guidelines;
2. DEC has confirmed through an inspection or audit that the conditions of the Part V licence are being met;
3. DEC has not undertaken any enforcement action in relation to the activities at the premises in the last 6 months;
4. Product testing has demonstrated that the product specification has been consistently achieved at the premises for a continuous 6 month period;
5. The presence of mitigating factors such as best practice management measures, high control of source material or use of the product for low risk purposes;
6. The quantity of waste processed in the last 6 months and the different sources/types of material processed at the premises; and
7. DoH has agreed to the reduction in product sampling rate at the premises.

All requests for a reduced product sampling rate must be submitted in writing to the relevant DEC Industry Regulation Regional Leader for the Premises, details of which can be found in the interpretation section of the Part V licence for the Premises.

DEC will refer all requests to the DoH and operators must ensure that all requests include sufficient evidence, particularly in relation to product testing, to support compliance with the above criteria.

Proponents should note however, that despite a premises meeting the above reduced sampling criteria, there may be occasions where a reduced sampling rate is not approved by DEC. This

may occur for example where the site is close to sensitive receptors, contentious and/or there is a need to provide public confidence in the activities at the site.

Where a reduced sampling rate is approved at a premises, DEC will provide written notification of the approval and will continue to closely monitor that premises to ensure it remains compliant with the reduced sampling criteria. DEC's monitoring of the premises will be further supported by the annual process audits required by section 5.1 and the results of the product sampling.

DEC will withdraw the approval to implement a reduced sampling frequency where the reduced sampling criteria are not being met on an on-going basis. Where DEC withdraws approval for a reduced sampling frequency, proponents will be provided with the reasons for the withdrawal.

In the event that approval for a reduced sampling rate is withdrawn by DEC, proponents will be required to make a new reduced sampling frequency request and demonstrate that they have:

1. Implemented appropriate measures to prevent a re-occurrence of the non-compliance that caused the previous agreement for a reduced sampling frequency to be withdrawn; and that
2. The product specification (sampled at the 40 samples per 4000 tonnes rate) has been consistently met for a 6 month period following the implementation of the measures identified in 1. above.

Sample Analysis Method

>7mm sample fractions

Asbestos concentrations (ACM and FA) should be calculated in accordance with the methods detailed in section 4.1.7 of Department of Health (DoH), 2009, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. As detailed in the DoH Guidelines, averaging asbestos levels across the stockpile is not appropriate and asbestos levels within each sample should be reported.

<7mm sample fractions

Each <7mm sample fraction must be analysed for FA and AF.

Asbestos analysis must be undertaken by an independent NATA certified laboratory and comply with Australian *Standard Method for the Qualitative Identification of asbestos in bulk samples* (AS4964–2004) or be demonstrated to be able to achieve the equivalent level of results to this Australian Standard.

AS4964-2004 is currently the only method in Australia that has NATA certification, however the practicable level of detection for this standard polarized light microscopy method (PLM) and dispersion staining (DS) is 0.01%w/w. It is possible however, to measure asbestos contamination at or lower than 0.001%w/w where an increased sample size used, however DEC recognises that any reporting of concentrations below 0.01%w/w will be outside the conditions set by NATA.

Therefore, to determine whether recycled products meet the product specification for asbestos content, samples must be a minimum of 500mL in size. Proponents must adopt one of the following analytical approaches:

1. Detected/non-detected – where any quantity of asbestos is detected by the PLM method it must be assumed, without further analysis, to be in concentrations above the product specification limit of 0.001%w/w. A weight of evidence approach may be adopted i.e. the frequency and occurrence of other positive results in the stockpile can be taken into account, to determine whether the stockpile being assessed is considered to meet the product specification or not; or

2. Where any quantity of asbestos is detected by the PLM method, the sample is subject to further testing in the form of a semi-quantitative method with a lower level of detection for asbestos. A number of laboratories have developed such semi-quantitative methods for the analysis of low levels of asbestos. Techniques include:
   - The extraction and weighing of fibre bundles or fibre cement material from the total sample; and
   - Measuring the width and length (ie volume) of individual fibre by Phase Contrast Microscopy (PCM) and calculating the weight of fibres in the extracted sub-sample.

The use of either of these methods is considered acceptable to DEC.

Whatever analysis methods are adopted by an operator, DEC expects a number of assessment based statements to be included in all laboratory analytical reports. These include:

- Details of the sample size;
- A Statement of Limit of Detection of the analysis;
- Results in relation to asbestos detected or not – note that AS4964-2004 allows for a nil detection if the asbestos is less than a certain concentration and is non-respirable however DEC would consider a positive result to exceed the 0.001% w/w limit;
- Description of any asbestos detected; and
- Estimate of the concentration of asbestos detected if practical to do so.

Interpreting Inspection and Sampling Results

If the visual inspection, sieve sample or analytical results identify asbestos above or possibly above the 0.001%w/w criteria then that stockpile or product process should be deemed potentially contaminated and considered for off-site disposal as asbestos waste, or subject to further actions to remediate it or to demonstrate its acceptability by further assessment. A record should be made of the decision making and action taken eg off-site disposal, further assessment undertaken etc, in relation to that stockpile.

In addition to the above, where asbestos is identified above or possibly above the 0.001%w/w criteria, an investigation into the likely cause for the presence of asbestos in the product should be undertaken and measures implemented to prevent a reoccurrence. A record of the

investigation and its findings together with the details of any preventative measures implemented at the site should be made.

As a guide, in the case of recycled drainage rock identification of a piece of ACM or FA per $10m^2$ of surface would be deemed to exceed the specification for that area, and for the whole stockpile if repeated in 2 or more other separate areas. A single fragment exceedance can be considered an isolated occurrence in the absence of other contamination evidence and the stockpile allowed for beneficial use. If there is multiple contamination only of a localised area then that area can be excavated to the extent of any visible asbestos and then the remainder of the stockpile considered to be suitable for use.

For laboratory analysis it is important that each result be considered on its own merits in regard to the asbestos control specification and that there is no averaging across samples. In the case of a single exceedance at a level less than 0.01% w/w, the stockpile (nominally 4000 tonnes) may not be deemed contaminated if repeat samples of immediately adjacent areas do not demonstrate specification exceedances.

The same approach as indicated in the preceding paragraph can be applied to the results of the >7mm sieve sampling in regard to the recycled sand material and roadbase. In this case a $1cm^3$ fragment of ACM or FA would be deemed to exceed the specification for a 10L sample.

It should be noted that specification exceedances in regard to different assessment methods for the same type of stockpile should not be viewed in isolation from each other.

Product Supply

Recycled products should only be supplied to customers from stockpiles that have been sampled and tested in accordance with section 4.3 and shown to conform to the product specification.

Government of Western Australia
Department of Environment Regulation

Decision Document

Environmental Protection Act 1986, Part V

Proponent: Earthcare Recycling Pty Ltd

Licence: L8979/2016/1

Registered office:	c/o Complete Business Consultants 47A Kirwin Street FLOREAT WA 6014
ACN:	092 525 678
Premises address:	Earthcare Recycling Pty Ltd 426 Great Northern Highway MIDDLE SWAN WA 6056 Being part Lot 23 on Diagram 82744.
Granted:	Thursday, 9 March 2017
Commencement date:	Thursday, 9 March 2017
Expiry date:	Tuesday, 8 March 2022

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER) the CEO's delegated officer has decided to issue licence. The delegated officer considers that in reaching this decision, they have taken into account all relevant considerations.

Decision Document prepared by:	Melissa Chamberlain Licensing Officer
Decision Document authorised by:	Alan Kietzmann Delegated Officer

Contents

1 Purpose of this Document

This decision document explains how DER delegated officer 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

<table>
<tr><th colspan="3">Administrative details</th></tr>
<tr><td>Application type</td><td colspan="2">Works Approval ☐
New Licence ☒
Licence amendment ☐
Works Approval amendment ☐</td></tr>
<tr><td rowspan="3">Activities that cause the premises to become prescribed premises</td><td>Category number(s)</td><td>Assessed design capacity</td></tr>
<tr><td>62 – Solid waste depot</td><td>55,000 tonnes per annual period</td></tr>
<tr><td>13 – Crushing of building material</td><td>50,000 tonnes per annual period</td></tr>
<tr><td>Application verified
Application fee paid</td><td colspan="2">Date: 29/06/2016
Date: 06/07/2016</td></tr>
<tr><td>Works Approval has been complied with
Compliance Certificate received</td><td colspan="2">Yes☐ No☐ N/A☒
Yes☐ No☐ N/A☒</td></tr>
<tr><td>Commercial-in-confidence claim</td><td colspan="2">Yes☒ No☐</td></tr>
<tr><td>Commercial-in-confidence claim outcome</td><td colspan="2">The Applicant requested the lease agreement provided in attachment A of the application is not made public as it contains financial arrangements which are not relevant to the operation and management of the facility.</td></tr>
<tr><td>Is the proposal a Major Resource Project?</td><td colspan="2">Yes☐ No☒</td></tr>
</table>

Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986*?	Yes☐ No☒	Referral decision No: Managed under Part V ☐ Assessed under Part IV ☐
Is the proposal subject to Ministerial Conditions?	Yes☐ No☒	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 *Environmental Protection Act 1986*)?	Yes☐ No☒ Department of Water consulted Yes ☐ No ☒	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes☐ No☒		
Is the Premises subject to any EPP requirements? Yes☐ No☒		

3 Executive summary of proposal and assessment

Earthcare Recycling Pty Ltd (Earthcare) currently operate a construction and demolition waste recycling facility within a portion of Lot 23 (No 426) Great Northern Highway, Middle Swan. Wastes are brought on site in skip bin from residential construction sites. Earthcare is applying for a licence as they have stated in their application that they are approaching the thresholds for a prescribed premises. As the premises is already in operation, a works approval has not been issued for the premises. A retrospective Planning Approval was granted by the City of Swan on 6 January 2016 to operate subject to conditions including operating hours. Lot 23 is zoned 'Rural' under the Metropolitan Region Scheme and 'Swan Valley Rural' under the City of Swan Local Planning Scheme No. 17 and part of Additional Use Area No. 57.

Earthcare accepts construction and demolition (C&D) waste, clean fill and small amounts of putrescible waste (paper/cardboard) for storage prior to removal offsite to recyclers or end users. Earthcare also crush and screen C&D material to convert it into drainage rock or road base. Screening operations are expected to occur a few hours on one to two days per week, and crushing is expected to operate a number of days per month.

According to supporting information provided in the application, wastes received at the premises is only brought in by Earthcare employees and wastes are derived from construction sites that postdate 2003 in order to reduce asbestos acceptance risk.

Location & Siting
The nearest residential receptors are a number of houses located 120 metres (m) to the west and south west of the premises along Great Northern Highway. Residents are also located approximately 300 m east of the premises across the railway line. Swan Christian College is located 230 m south west and a church is located 270 m north. Immediately adjacent to the west of the premises is some light industrial activities, and the surrounding land is predominately rural residential, vineyards and tourist attractions. The nearest residential development is the suburb of Middle Swan located approximately 1kilometre (km) south.

To the eastern boundary of the premises is Strelley Brook and an associated floodplain which extends into a portion of the premises. The *Strelley Brook Flood Analysis* (Emerge Associates 2013) identified that approximately 50 m of the eastern portion of the Premises may be flooded to a depth of up to 1 m in a 100 year ARI flood event. For the majority of the premises, flooding is likely to be less than 0.25 m in depth.

The vegetation associated with Strelley Brook and the floodplain is designated as Bush Forever site 302, as classified under the Department of Planning's State Planning Policy 2.8, *Bushland Policy for the Perth Metropolitan Region*. The premises boundary is at least 40 m west of the mapped extent of Bush Forever Site 302.

The Department of Water's Perth Groundwater Atlas indicates that groundwater in the area is found at approximately 3.5 metres below ground level. The salinity of the groundwater is 500-1000 mg/l TDS which is considered to be marginal.

The premises is classified under the Contaminated Sites Act 2003 as '*possibly contaminated – investigation required'.*

The potential emissions of significance associated with the proposed activities include, noise and dust emissions, and movement of sediment during rainfall events.

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**
Occupier	N/A	Under the EP Act, works approvals and licences can only be granted to the occupier of the premises. DER has received evidence to demonstrate that Earthcare have a lease agreement in place until the 01 March 2022. The Delegated Officer is satisfied that Earthcare are the occupiers of the premises.	Application Supporting Documentation [DER Record A1118457]
Fitness and Competency	N/A	A search of DER's Industry Licensing System (ILS) Incident Complaint Management System (ICMS) and records held by DER has been undertaken in relation to previous instruments and/or compliance issues regarding Earthcare. DER records show Earthcare previously applied for a works approval and licence in 2012 for a Solid waste depot in the City of Rockingham however this application was withdrawn as planning approval as not granted. DER has no records of any compliance action being taken against Earthcare. The Delegated Officer has determined that a works approval and licence will not be refused based on fitness and competency grounds.	DER records
Premises operation	L1.2.1 to 1.2.19	Condition 1.2.1 to 1.2.3 specify the waste types that may be accepted at the premises to those assessed as part of this decision report, and requires non-conforming wastes to be removed from the premises as soon as practicable. Conditions 1.2.4 to 1.2.14 outline asbestos control requirements as determined in the asbestos risk assessment	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		section below. Conditions 1.2.15 to 1.2.19 specify process limits, infrastructure requirement, storage requirement controls and operations controls as determined in the risk assessments below.	
Emissions to surface water and groundwater	L1.2.15, 1.2.16	*Emission:* The premises accepts putrescible wastes which may come into contact with stormwater and generate leachates. Inert material may also contribute to a high sediment load if transported from the premises in stormwater. *Impact:* Potential impacts include degradation of groundwater and surface water quality, and impacts to fauna and flora that rely on these water sources. Groundwater is found at approximately 3.5 metres below the surface. The nearest surface water is Strelley Brook located adjacent to the eastern boundary of the premises, and portions of the premises are prone to flooding. Given the nature of the waste types, sediment migration may be possible to waterways and cause turbidity of water, which will impact freshwater ecosystems. *Controls:* The applicant has proposed the following controls: • Only Inert waste types will be stored on bare ground or in flood prone areas. • Only cardboard, paper and timber putrescible wastes will be accepted, these will be stored in an elevated concrete bunded area. • Washdown of bins and vehicles to only occur on a designated compacted hardstand area. • All wastewater from the operational area will be directed to an engineered drainage system including a sediment trap. • Visual inspection to remove non-conforming waste types to store in appropriate bins. • Perimeter fencing to capture windblown waste. <u>Risk Assessment</u> *Consequence:* The Delegated Officer has determined the consequence of leachates and/or particulate matter entering surface water or groundwater to be minor with minimal off-site impacts.	Application Supporting Documentation [DER Record A1118457]

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Likelihood: The Delegated officer has determined the likelihood of solid or liquid waste emissions entering surface water or groundwater to be possible given the distance to these receptors. *Overall Risk:* The Delegated Officer has determined that the overall risk of solid or liquid waste impacts to groundwater or surface water to be Medium. <u>Regulatory Controls</u> The Delegated Officer has determined that a medium overall risk requires regulatory controls, and will impose conditions generally consistent with the applicant's proposed controls. This includes storage and wastewater management requirements, requiring a concrete hardstand for the putrescible storage area, and maintaining the integrity of hardstands and storage bins. <u>Residual Risk</u> *Consequence:* Minor *Likelihood:* Unlikely *Overall Risk:* Medium	
Odour Emission Risk	L1.2.2	<u>Emission Description</u> *Emission:* Odour emission may occur due to non-conforming waste types brought onto the premises or the putrescible waste types remaining on the premises long enough to decompose. *Impact:* Odour may cause nuisance impacts to nearby industrial and commercial properties immediately adjacent to the premises. The nearest residential receptors are located approximately 120 m to the west and south west. *Controls:* The Applicant has proposed the following controls: • Applicant vehicles will bring the waste in from source sites and will be able to control what is brought on the premises. • Visual inspection of waste types to remove non-conforming waste types <u>Risk Assessment</u>	Application Supporting Documentation [DER Record A1118457]

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Consequence: The Delegated Officer has determined that impacts from any odour emissions would be slight with minimal impacts to amenity based on the waste types expected to be received. *Likelihood:* The Delegated Officer has determined that the likelihood of minor impacts occurring to be unlikely based on the waste types permitted to be accepted and the applicants control measures. *Overall Risk:* The Delegated Officer has determined the overall risk of odour emission impacts is low. <u>Regulatory Controls</u> The Delegated Officer has determined that a low risk of odour emissions during operation is acceptable and additional regulatory controls are not required. The applicant will be subject to control measures requiring the removal of non-conforming waste types. <u>Residual Risk</u> *Consequence:* Slight *Likelihood:* Unlikely *Overall Risk:* Low	
Dust Emission Risk	L1.2.15, 1.2.16, L1.2.17	<u>Emission Description</u> *Emission:* Fugitive dust may arise from the movement of waste types, the crushing of materials or from vehicle movements. Screening activities are proposed to occur one to two days per week, and crushing occurring three to four days per month. Dust emissions may also be caused from stockpile lift-off, hardstand areas and operating under adverse wind conditions. *Impact:* Dust may cause reduced local air quality and potential nuisance impacts to nearby industrial and commercial properties immediately adjacent to the premises. The nearest residential receptors are located approximately 120 m to the west and south west. *Controls:* The Applicant has proposed the following controls:	Application Supporting Documentation [DER Record A1118457]

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		• Sprinkler system to be operated daily to dampen hardstand and stockpile areas. • Wastes will be covered with a lid or weighted shade cloth at the end of each day. <u>Risk Assessment</u> *Consequence:* The Delegated Officer has determined that impacts from any dust emissions would be minor with low level impacts to amenity. *Likelihood:* The Delegated Officer has determined that the likelihood of minor impacts occurring to be possible due to the distance of the receptor, low frequency of crushing and screening activities and proposed controls. No dust complaints have been recorded with DER in relation to the operation of the facility prior to licensing; the applicant has stated they have been operating below the prescribed category thresholds prior to the application. *Overall Risk:* The Delegated Officer has determined the overall risk of dust emission impacts is medium. <u>Regulatory Controls</u> The Delegated Officer has determined that a medium overall risk requires regulatory controls, and will impose conditions generally consistent with the applicant's proposed controls. This includes requiring that an operational sprinkler system is maintained capable of wetting down hardstands, stockpiles and the noise bund, and that the system is operated on a daily basis to stabilise the stockpiles and noise bund. Regulatory controls are also placed on stockpile height to reduce risk of dust lift-off, and processing of C&D materials to cease dust emissions cannot be effectively controlled by the relevant infrastructure. <u>Residual Risk</u> *Consequence*: Minor *Likelihood*: Possible	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Overall Risk: Medium	
Asbestos Emission Risk	L1.2.3 – L1.2.14, L1.2.19	Emission Description *Emission:* Fugitive dust emissions from the crushing and screening of C&D waste and the storage of non-conforming waste types have the potential to contain asbestos fibres. *Impact:* Asbestos fibres cause public health impacts such as asbestosis. The nearest residential receptors are located approximately 120 m to the west and south west. A school is located 230 m south west. *Controls:* Asbestos is not accepted at the premises. Waste is only accepted by Earthcare vehicles and bins are visually inspected for non-conforming waste types prior to being transported. Wastes are visually inspected during tipping and picking. Wastes accepted are from construction sites that post-date 2003 to reduce risk of asbestos acceptance. Risk Assessment *Consequence:* The Delegated Officer has determined that impacts from any asbestos emissions would be severe with adverse health effects. *Likelihood:* The Delegated Officer has determined that the likelihood of severe impacts occurring to be unlikely due to low frequency of crushing and screening activities and that asbestos is not accepted at the premises. *Overall Risk:* The Delegated Officer has determined the overall risk of dust emission impacts is high. Regulatory Controls The Delegated Officer has determined that a high overall risk requires regulatory controls, and will propose controls which replicate the requirements of DER's Asbestos Guidelines including visual inspection, stockpile segregation and asbestos testing. Waste acceptance controls will include specifications that asbestos or ACM is not permitted, and where any asbestos or ACM is identified it is appropriately contained prior to removal from the premises. Controls specifying security measures will be	Application Supporting Documentation [DER Record A1118457]

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		implemented to ensure no illegal dumping of asbestos material occurs. Residual Risk *Consequence:* Severe *Likelihood:* Rare *Overall Risk:* High	
Noise Emission Risk	L1.2.16, L1.2.17, 1.2.18	*Emission Description* *Emission:* Noise may be generated from the movement of waste, crushing and screening activities and trucks and vehicle movement during operations. *Impact:* Potential impacts of noise emissions include amenity impacts to nearby properties. Noise modelling provided by the applicant demonstrates that if the specified equipment and control measures are in place the applicant is likely to comply with the noise regulations. An assessment of the acoustic report by DER's Noise Regulation identified that there is a possibility that there may be tonal exceedances under 'worst case' conditions. The nearest residential receptors are six residences located approximately 120m to the west and south west. DER has no record of any noise complaints being made in regards to the premises. *Controls:* The applicant proposed the following controls: • Operations will be limited to 7am to 5pm Monday to Saturday • Maintaining 4m high noise bunds • Operating the crusher close to the noise bunds Risk Assessment *Consequence:* Based on the equipment and controls specified in the acoustic report, and an assessment of the acoustic report by DER's Noise Regulation, the Delegated Officer has determined that impacts from any noise emissions during operation would be moderate with specific consequence criteria at risk of not being met, and mid-level impacts to amenity. *Likelihood:* The Delegated Officer has determined that the likelihood of moderate	Application Supporting Documentation [DER Record A1118457] *Environmental Protection (Noise) Regulations 1997* Earthcare Recycling Facility Environmental Noise Assessment, Lloyd George Acoustics, 20 December 2016 [DER Record A1348814]

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		impacts occurring during operation to be possible. *Overall Risk:* The Delegated Officer has determined that the overall risk of noise emission impacts during operation to be medium. <u>Regulatory Controls</u> The Delegated Officer has determined that a medium overall risk requires regulatory controls, and will impose conditions generally consistent with the applicant's proposed controls and the controls used to achieve the predicted noise levels in the acoustic report. These controls include: • Limit operating hours to 7am to 5pm Monday to Saturday; • Specifying the equipment used within the acoustic report; • Maintenance of a 4 m high noise bund; • Operation of the crusher within 5 m of the noise bund; and • Restrictions on the use of tonal alarms. The Licence Holder is to also maintain a complaints system. Should it be determined that noise emissions impact receptors, further regulatory controls may be placed on the Licence. The applicant is required to comply with the assigned levels in the *Environmental Protection (Noise) Regulations 1997.* <u>Residual Risk</u> *Consequence:* Minor *Likelihood:* Unlikely *Overall Risk:* Medium	
Monitoring of inputs and outputs	L 2.1.1	Condition 2.1.1 and Table 2.1.1 requires the applicant to record the volume of waste accepted and rejected from the premises and the volume of processed materials to enable DER to monitor compliance with waste acceptance and throughput criteria.	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		These conditions are valid and are necessary administration and reporting requirements to ensure compliance.	
Information	W – 5.1.1 and 5.1.2 L – 3.1.1, 3.1.2 and 3.2.1	Condition 3.1.1 of the licence requires the applicant to maintain legible records. Condition 3.1.2 of the licence requires the applicant to implement a complaints management system. Condition 3.2.1 of the licence requires the applicant to submit a Compliance Report (Annual Audit Compliance Report – AACR). Condition 3.2.1 and Table 3.2.1 requires the applicant to submit an annual report which includes a summary of inputs and outputs and a summary of the complaints. These conditions are valid and are necessary administration and reporting requirements to ensure compliance.	
Licence Duration	N/A	Planning approval has been granted by the City of Swan with no expiry date. The approval contains a number of conditions, including the requirement to store processed materials, sand and drainage rock to specific locations, limits on operating hours. The applicant has demonstrated they have occupancy of the premises until 01 March 2022. The licence duration will be limited by this lease date.	Application Supporting Documentation, Appendix B.

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
18/07/2016	Application advertised in West Australian	None received	N/A
18/07/2016	Application referred to City of Swan	None received	N/A
2/02/2017	Proponent sent a copy of draft instrument	Revised site boundary coordinates, map and site plan provided	Site boundary and maps updated.
		The original application was for categories 13, 62 and 70, however the proposed licence is for categories 13 and 62 only. Provided screening is considered as part of Category 62 activities the proponent is comfortable with the categories.	The Delegated Officer confirms that the screening being undertaken at the premises falls under Category 62 and not Category 70 as it is not material extracted from the ground.
		Minor wording and typographical changes to Location and Siting, condition 1.1.3, 1.2.14 and 1.2.17	Changes accepted.
		There is no Schedule 2 in the licence so definition is not required.	Definition is removed.
		Condition 1.1.4 requires that the licence holder adheres to updated guidelines/codes of practice, and therefore is it necessary to include Attachment 1 which contains excerpts of DER's asbestos guidelines?	The Delegated Officer has determined that the reference to excerpts in the attachment is necessary for the relevant conditions to be clear and enforceable. The only guideline or code of practice referred to in the licence is DER's asbestos guidelines, therefore Condition 1.1.4 has therefore been removed.
		The potential for asbestos in the waste stream is low, and a number of control measures are undertaken to manage potential ACM.	The Delegated Officer has previously considered the waste source in determining the likelihood of asbestos impacts as rare.
		With regard to the above, under Section 3.3	The Delegated Officer has further considered the asbestos

Date	Event	Comments received/Notes	How comments were taken into consideration
		of the guideline, it states that "all persons bringing waste onto the premises must be asked to sign a declaration or provide a 'customer warranty' on a vehicle load specific basis confirming the load is free of asbestos". This particular requirement is not proposed to be implemented as it is considered unnecessary given materials are transported to site by Earthcare employees who follow the policies and procedures of Earthcare. In addition, Earthcare's visual inspection process (outlined above) minimises the risk of asbestos progressing through the recycling process undetected.	controls proposed by the applicant in their response and has reviewed the risk assessment. The consequence of severe and likelihood of rare remains. The overall risk rating remains as high and is therefore subject to regulatory controls. The Delegated Officer considers that adhering to the requirements for a customer warranty and undertaking sampling and testing as outlined in the DER asbestos guidelines is necessary to mitigate the high asbestos impact risk. The Delegated Officer notes that loads are only brought onto the premises by Earthcare employees however this does not preclude a declaration or warranty being obtained at the point of loading waste. The Delegated Officer also notes the comments regarding the high risk classification, however DER's asbestos guidelines must be applied consistently.
		With regard to the risk classification procedure, we note that the DER asbestos guidelines suggests that the wastes accepted by Earthcare will generally be considered 'low risk' for containing asbestos material as the wastes processed come from buildings or structures that have been constructed after 1990. However due to how the DER asbestos guideline groups wastes, it would be considered 'high risk' in accordance with the Risk Classification Matrix. This is because the majority of waste will be considered to be 'mixed construction material' (although the material is generally sorted at source into the main waste types, namely metal; untreated timber; tiles and bricks; concrete rubble; sand; cardboard; plastic; and plastering residue). The waste processed by Earthcare is unlikely to contain ACM and therefore we do not think the 'high risk' category is applicable. However, 'high risk' waste can be managed in accordance	

Date	Event	Comments received/Notes	How comments were taken into consideration
		with the DER asbestos guideline based on existing Earthcare processes.	
		Proponent requested that condition 1.2.14 refer to the 'Reduced Sampling Criteria' detailed in DER asbestos guidelines.	As per the DER Asbestos guidelines, once a premises has demonstrated that their procedures are able to consistently produce recycled product that meets the product specification, DER may authorise a reduced product testing rate. Seven criteria are specified within the DER Asbestos Guidelines which DER will use to determine a reduction in product sampling frequency including inspection, review of enforcement activity, product testing for a 6 month period, presence of mitigating factors, quantity of waste and/or DoH agreement. The Delegated Officer notes that the proponent may request a reduced sampling rate once sufficient evidence, particularly in relation to product testing can be provided to support compliance with the seven criteria.
		For Inert Waste Type 2 and Putrescibles, we propose a number of changes to the way the waste is managed, which have been outlined below: • Large timber pieces will not be covered as these are stacked within a metal rack for later reuse. • Waste, where it is not stacked will be located in large bins. These bins will be inspected daily to ensure the bins are not overfilled. Perimeter fence will capture windblown material in the event this occurs. The risk of windblown material extending outside the premise boundary is managed through placing the waste material into large bins (or stacked neatly) and weighted down where required, which minimises the	The Delegated Officer has considered the additional controls proposed by the applicant in the emissions to surface water and groundwater impact risk assessment. Minor changes have been made to Table 1.2.2 Waste Processing to account for the waste management changes.

Date	Event	Comments received/Notes	How comments were taken into consideration
		likelihood of waste being blown around. In addition, the perimeter fence will capture any windblown material within the premises. The fence will be inspected regularly (at least once a week) and any material that is not located in its designated area, will be collected and appropriately stored.	
		Updates to site infrastructure and details of wastewater pond provided	Infrastructure table updated.

6 Risk Assessment

Table 1: Risk Criteria

Likelihood	Consequence				
	Slight	Minor	Moderate	Major	Severe
Almost Certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Medium	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High