



Licence

Environmental Protection Act 1986, Part V

Licensee: Appala Holdings Pty Ltd t/a Perth Bin Hire

Licence: L8966/2016/1

Registered office: 2 Brook Street
EAST PERTH WA 6004

ACN: 009 360 730

Premises address: Postans Glass Processing and Waste Sorting Facility
119 McLaughlan Road
POSTANS WA 6167
Being Part Lot 2129 on Plan 173137 with the following coordinates:

Point	Easting	Northing
1	64347.62	389107
2	64347.47	389175
3	64347.16	389169
4	64347.01	389219
5	64346.19	389204
6	64346.43	389079

as depicted in Schedule 1

Issue date: Monday, 11 December 2017

Commencement date: Monday, 11 December 2017

Expiry date: Thursday, 18 April 2019

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
61A	Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.	1,000 tonnes or more per year	165,000 tonnes per annual period



Conditions

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

Date signed: 11 December 2017

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Steve Checker

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.

DWER's industry licensing role

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

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DWER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER 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

Appala Holdings Pty Ltd trading as Perth Bin Hire (PBH) has applied for a concurrent Works Approval and Licence to operate a new prescribed premises in accordance with the *Environmental Protection Act 1986*. The Premises is located at 119 McLaughlan Road, Postans located on Crown Reserve with Water Corporation listed as the holder of the Management Order. The site will be leased and operated by Farfield Holdings Pty Ltd from Water Corporation, with PBH holding a sublease with Farfield Holdings Pty Ltd. The sub-lease expires on 3 August 2022 with the option of renewal until 3 August 2024, expiring on 27 February 2026. A further renewal is possible until 3 August 2027, subject to extension of Lease N294529.

The proposal is for PBH to accept inert waste type 1 and putrescible waste for sorting and processing under Category 61A of the *Environmental Protection Regulations 1987*, with a maximum design capacity of 165,000 tonnes per annual period. No waste will be held permanently or buried at the premises. All waste will be removed from the premises for reuse or final disposal at an appropriate facility.

The Works Approval Compliance Report was received by DWER via email on 6 November 2017, and determined as compliant.

A full assessment of the premises construction and operation has been defined within the associated Decision Report related to this application.

Instrument log		
Instrument	Issued	Description
W5970/2016/1	04/08/2017	New application for construction of a Category 61A – Solid waste facility.
L8966/2016/1	11/12/2017	New application for the operation of a Category 61A – Solid waste facility (this 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:

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

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

'annual period' means the inclusive period from 1 November to 31 October;

'AS/ ANZ 3580' means the Australian Standard AS 3580 *Methods for sampling and analysis of ambient air* and includes all related/ relevant methods for use in the sampling and analysis of ambient air parameters;

'AS 3580.1.1' means the Australian Standard AS 3580.1.1 *Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment*;

'AS 3580.9.6' means the Australian Standard AS 3580.9.6 *Methods for sampling and analysis of ambient air - Determination of suspended particulate matter – Method 9.6: PM₁₀ high volume sampler with size selective inlet – Gravimetric method*;

'AS 3580.9.8' means the Australian Standard AS 3580.9.8 *Methods for sampling and analysis of ambient air - Determination of suspended particulate matter - PM₁₀ continuous direct mass method using tapered element oscillating microbalance analyser*;

'AS 3580.14' means the Australian Standard AS 3580.14 *Methods for sampling and analysis of ambient air - Meteorological monitoring for ambient air quality monitoring applications*;

'AS/NZS 2031' means the Australian Standard AS/NZS 2031 *Selection of containers and preservation of water samples for microbiological analysis*;

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

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

'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;

'ACM' means Asbestos Containing Material;



'ASS guidelines' means DWER guidelines "*Identification and investigation of acid sulfate soils and acidic landscapes, 2015*" and "*Treatment and management of soil and water in acid sulfate soil landscapes, June 2015*" and as amended from time to time;

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

'CEO' means Chief Executive Officer of the Department of Water and Environmental 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@dwer.wa.gov.au

'classified load' means any load that has been identified as containing asbestos or ACM;

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

'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, as amended from time to time;

'emergency event' means a 1-in-10 year, 72 hour rainfall event;

'hardstand' means a base surface with a permeability of 2×10^{-10} metres/second or less;

'Inert Waste Type 1' 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;

'low permeability' means a surface with a permeability of 1×10^{-9} metres/second or less;

'Licence' means this Licence numbered L8966/2016/1 and issued under the Act;

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

'non-conforming waste types' means any/ all waste types that are not inert waste type 1 – construction and demolition waste or ASS;

'PM' means total particulate matter including both solid fragments of material and miniscule droplets of liquid;

'PM₁₀' means particles with an aerodynamic diameter of less or equal to 10 μm ;

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

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

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



'spot sample' means a discrete sample representative at the time and place at which the sample is taken; 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 or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 Premises operation

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

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

Table 1.2.1: Waste acceptance

Waste	Quantity Limit	Specification
Clean fill	N/A	None
Inert Waste Type 1	Combined total of 165,000 tonnes per annual period	- Residential, Construction and Demolition, Commercial and Industrial waste and glass only. - Waste containing visible asbestos or ACM must not be accepted. - No acid sulfate soils are to be accepted.
Putrescible waste		- Green waste, timber, pallets and cardboard only. - Excludes putrescible waste from municipal collections.

1.2.2 The Licensee must 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 Licensee must ensure that the infrastructure or equipment specified in table 1.2.2 is operated and maintained in good working order and in accordance with the specifications in that table.

Table 1.2.2: Infrastructure/ equipment requirements

Infrastructure	Specifications
1) Waste Acceptance, sorting and processing area (all)	Premises must be operated and maintained as follows: (a) Signage at entry points identifying waste acceptance types and emergency contact phone numbers. (b) Glass feedstock storage area constructed with a compacted recycled road base with a minimum thickness of 500 mm, to achieve a permeability of $\leq 1 \times 10^{-6}$ m/s or less (bundled on the western edge and graded to fall towards the lined containment sump on the northern edge of the premises). (c) All other hardstand areas maintained with a hardstand of no less than



	300 mm compacted recycled road base and graded to drain to one of three stormwater infiltration sumps within the premises boundary (along the southern and eastern edges). (d) Waste processing must include operation of a free standing reticulated sprinkler/ spray system along the sorting and processing area and spray jets on screening and crushing equipment. (e) Waste processing must include operation of an automated gantry spray at the site entrance or water tanker. (f) Waste processing must include operation of radius sprinklers and water piping to extend to the top of material stockpiles. (g) Permitted operation of: (i) 1 x barrel heater within a dome shelter; (ii) 1 x Truck, (iii) 1 x Excavator, (iv) 2 x Loaders, (v) 1 x glass crusher, (vi) 2 x Screens. (h) Associated perimeter 1.8 m fence maintained at all times.
2) Contaminated Stormwater/ leachate containment sump	Contaminated stormwater/ leachate containment sump must be maintained and operated to meet the following specifications: (a) Capacity to store a '72 hour duration, 1-in-10 year' ARI critical rainfall event without overflow. (b) The containment sump is lined and maintained with a geosynthetic clay liner or similar (permeability of $\leq 2.8 \times 10^{-11}$ m/s). (c) Operated to receive all contaminated stormwater or leachate from the feedstock glass (unprocessed material) storage area. (d) Maintained with a minimum freeboard of 500 mm.
3) Stormwater Infiltration sumps (3)	Three stormwater infiltration sumps to be operated and maintained as follows: (a) To receive uncontaminated stormwater from all areas other than the feedstock glass (unprocessed material) storage area. (b) Designed to capture of all uncontaminated stormwater within the premises boundary for the purposes of infiltration. (c) Designed to contain all stormwater generated from an extreme rainfall event. (d) Located on the southern and eastern boundary of the premises.
4) Hydrocarbon storage area	The Hydrocarbon storage area is to be operated and maintained as follows: Either: (a) 1 x above ground self (double) banded metal storage tank; and (b) a concrete apron constructed at the refuelling/ refilling access point/s which is to be graded towards an enclosed, impermeable sump for the capture of any spills as a result of refuelling or refilling of the tank. or (c) 1 x impermeable storage tank placed upon a concrete hardstand; and (d) surrounded by an impermeable bund capable of containing 110% of the volume of the hydrocarbon storage tank.
5) Internal roads and parking area	Low speed signage (≤ 10 km/hr) to be installed within the premises boundary at the entrance to all trafficable areas.
6) Noise management	Earth noise bunds are to be maintained and operated as follows: (a) The noise bunds must be maintained to a height of at least 6 m along the southern and 5 m on the eastern side of the premises boundary, as



	shown in the map in Schedule 1 or as determined through any additional mitigation requirements, as a result of a noise verification study undertaken, subsequent to construction of the premises.
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- 1.2.4 The Licensee must ensure that wastes accepted onto the Premises are only subjected to the processes set out in Table 1.2.3 and in accordance with any process limits described in that Table.

Table 1.2.3: Waste processing		
Waste type	Process	Process limits
1) All	Acceptance, processing, storage and removal off site	a) All activities carried out at the premises must comply with the <i>Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999</i> and the <i>Environmental Protection (Kwinana) (Atmospheric Wastes) Regulations 1992</i> b) Ensure no pooling or ponding occurs within the storage area and any leachates drain freely to the lined containment sump. c) All contaminated stormwater or leachate to be captured within the lined containment sump.
2) Clean Fill	Acceptance and storage prior to removal off site	a) Stockpiles must not exceed 7 m in height from the base of the stockpile. b) All loads to be wet down prior to unloading.
3) Inert Waste Type 1 (Residential, Construction and Demolition, Commercial and Industrial waste and glass)	Acceptance and storage prior to crushing and/ or screening and removal offsite.	a) Stockpiles must not exceed 7 m in height from the base of the stockpile. b) All loads to be wet down prior to unloading. c) No more than 165,000 tonnes per year may be crushed and screened. d) No waste material to be landfilled (buried) at the premises. e) No waste to be burnt or smoke emitted as a result of activities at the premises. f) Separation distance of 3 m between stockpiles and between the premises boundary. g) Green waste to be processed and stored at the premises for no longer than 7 days. h) Ensure that no windblown waste escapes from the Premises and that windblown waste is collected on at least a weekly basis and appropriately contained. i) Operational hours are between: i. 7am – 5 pm, Monday to Saturday; and ii. not on Sundays or Public Holidays.
4) Putrescible waste		



- 1.2.5 The Licensee must 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.
- 1.2.6 The Licensee must advise all source material providers that asbestos or potentially asbestos contaminated material (ACM) is not accepted at the Premises.
- 1.2.7 The Licensee must include a 'no asbestos' clause in all contracts with material sources.
- 1.2.8 The Licensee must maintain a clearly visible sign saying 'No Asbestos' at the entry to the Premises.
- 1.2.9 The Licensee must only accept waste onto the Premises for storage, sorting or crushing that is Inert Waste Type 1 with a signed declaration from the supplier of the source material with each delivery that warrants that the load does not contain any asbestos or ACM.
- 1.2.10 The Licensee must visually inspect all loads of C&D material when they arrive at the Premises prior to unloading and during 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 Appendix 1 (Classified Load).
- 1.2.11 Where the inspection confirms that material does contain asbestos or ACM, the Licensee must:
 - (a) reject the waste material for acceptance;
 - (b) maintain accurate records of all rejected loads on the Premises and the documentation must be made available to DWER officers upon request; and
 - (c) record the details of the material source, material carrier, registration number of the vehicle and date of rejection.
- 1.2.12 The Licensee must maintain high risk classified loads in a damp state using appropriate dust suppression measures.
- 1.2.13 The Licensee must ensure that suspected high risk classified loads are isolated, kept damp and appropriately contained, and the Licensee must comply with the *Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC:2002(2005)] and the Health (Asbestos) Regulations 1992*.
- 1.2.14 The Licensee must ensure that suspected high risk classified loads continue to be managed in accordance with the high risk procedure as outlined in section 3.4 of the DER Asbestos Guidelines (See Appendix 1).
- 1.2.15 The Licensee must, as a minimum maintain records of all accepted load inspections and of any accepted loads which have been determined as high risk classified loads.
- 1.2.16 The Licensee must continue to visually inspect material on the Premises at all stages of the storage, sorting and crushing process. Suspect asbestos identified at any stage of the process must be handled in accordance with Condition 1.2.11 of this Licence.
- 1.2.17 The Licensee must maintain material on the Premises in at least three separate stockpiles areas for unprocessed material, processed material tested for ACM and:
 - (a) unprocessed material and processed material areas must be kept clearly separated at a minimum 3 m distance;



- (b) processed material tested for ACM and processed material awaiting testing for ACM must be clearly separated by a minimum 3m 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 material, untested processed material and unprocessed material.

1.2.18 The Licensee must ensure that the asbestos content of any recycled output originating from construction and demolition waste does not exceed the contamination limits specified in Table 1.2.4.

Table 1.2.4: Recycled output contamination limits

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

1.2.19 The Licensee must ensure that recycling outputs originating from construction and demolition waste are sampled and tested in accordance with Table 1.2.5.

Table 1.2.5: Recycled output sampling and testing

Output	Parameter	Limit	Method
Recycled drainage rock	Asbestos (in any form)	0.001% w/w	In accordance with the DER Asbestos Guidelines.
Recycled sand			
Recycled road base			

1.2.20 The Licensee must ensure that testing of all finished products used in the construction of infrastructure on the Premises or supplied for re-use must be undertaken in accordance with the product testing procedures as outlined in section 4.3 of the DER Asbestos Testing Guidelines (Appendix 1).

1.2.21 The Licensee must implement control measures to prevent infestations of pests, flies and vermin at the Premises.

2 Emissions

2.1 General

2.1.1 The Licensee must record and investigate the exceedance of any descriptive or numerical limit specified in any part of this Licence.



2.2 Fugitive emissions

2.2.1 The Licensee must not cause fugitive dust emissions greater than the limits listed in Table 2.2.1.

Table 2.2.1: Fugitive emission limits

Emission point reference	Parameter	Limit ¹ (including units)	Averaging period
Part of Lot 2129 on Plan 173137 (as shown in Schedule 1: Maps)	Particulates as PM ₁₀	50 µg/m ³	24 hours

Note 1: As defined by the requirements of the *Environmental Protection (Kwinana) (Atmospheric Wastes) Regulations 1992* and *Air Quality Standards as part of the National Environment Protection Measure for Ambient Air Quality (NEPM)*.

2.2.2 The Licensee must maintain and operate ambient air monitoring equipment at the premises during operation, in accordance with relevant standards.

2.3 Noise

2.3.1 The Licensee must only operate the following equipment for crushing and screening at the premises, as defined within Table 2.3.1 below:

Table 2.3.1: Equipment operation

Emission	Units	Equipment	Method
Noise	Operating equipment	1 x truck; and 1 x excavator; and 2 x loaders; and 1 x glass crusher, and 1 x barrel heater or 2 x screens	• No 'rock breaker' or 'jaw crusher' to be used at the premises at any given time. • Crusher and screening plant shall be operated between 7am and 5pm, Monday to Friday only. • All operating equipment fitted with noise attenuation (mitigation/minimisation) measures.

2.3.2 The Licensee must:

- (a) undertake a noise verification study within six months from issue of the Licence. The noise verification study is to be undertaken during full operation of all permitted equipment at the premises;
- (b) retain the services of a person competent in environmental noise assessment whose qualifications and experience qualifies them for a membership of the *Australian Acoustical Society* or the *Australian Association of Acoustical Consultants*, to:
 - (i) undertake the noise verification study on behalf of the Licensee; and
 - (ii) compare the results of the noise verification study to the initial and cumulative noise modelling assessment submitted for the Work Approval; and
 - (iii) include an assessment of tonality within the noise verification study; and
 - (iv) define compliance to the *Environmental Protection (Noise) Regulations 1997*; and
 - (v) confirm any necessary actions and timeframes for implementation of appropriate mitigation measures, where compliance has not been met.



- (c) submit a copy of the report to the CEO within 9 months from the issue of the Licence, confirming the outcome of the noise verification study, as defined above.

3 Monitoring

3.1 General monitoring

- 3.1.1 The licensee must ensure that:
- (a) all ambient air sampling and analysis is done in accordance with AS/NZS 3580;
 - (b) all ambient air monitoring equipment is in accordance with AS 3580.1.1;
 - (c) all water samples are collected and preserved in accordance with AS/NZS 5667.1; and
 - (d) 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.
- 3.1.2 The Licensee must record production or throughput data and any other process parameters relevant to any non-continuous or CEMS monitoring undertaken.
- 3.1.3 The Licensee must 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.
- 3.1.4 The Licensee must, 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.

3.2 Fugitive emissions

- 3.2.1 The Licensee must ensure that all equipment used for the suppression or management of dust emissions (covers, sprinklers, sprayers, hoses, water trucks or carts) at the premises are maintained and operational at all times, during operational hours.

3.3 Monitoring on inputs and outputs

- 3.3.1 The Licensee must undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Monitoring of inputs and outputs				
Input/Output	Parameter	Units	Averaging period	Frequency
Waste inputs	Clean fill, Inert Waste Type 1, Putrescible waste.	m ³ and calculated tonnes (conversion factor of 1.3 tonnes/m ³)	N/A	Each load arriving at premises.
Waste outputs	Waste type as defined in the <i>Landfill Definitions</i> .			Each load leaving or rejected from the Premises.

3.4 Ambient environmental monitoring

- 3.4.1 The Licensee must undertake the monitoring in Table 3.4.1 according to the specifications in that table and record and investigate results that do not meet any limit specified.



Table 3.4.1: Monitoring of ambient air quality

Monitoring point reference and location	Parameter	Emission level ¹ (including unit)	Method/ frequency	Specified action
'DustTrak II DT8350' with visual alarm location along the western & southern boundary of premises (See Schedule 1: Maps)	Particulates as PM ₁₀	24 hour average > 50 µg/m ³	AS/ NZS 3580.9.11 6 times per year/ evenly spaced.	(a) Assess the operational effectiveness of dust management measures on the premises and if required undertaken improvements to ensure dust management measures. (b) Cease all activities causing visible dust lift off until activity causing emission has been rectified.
'SKC AirCheck PCXR8' along western boundary of the premises (See Schedule 1: Maps)	Asbestos Fibre (Mixed fibre)	24 hour average > 0.01 fibre/ mL	NOHSC: 3003 6 times per year/ evenly spaced.	(a) Verify Asbestos fibre in sample; (b) Assess the operational effectiveness of dust mitigation measures and undertake improvements where required.

Note 1: Particulate units are referenced to STP dry.

4 Information

4.1 Records

4.1.1 All information and records required by the Licence must:

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

4.1.2 The Licensee must 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 must:

- (a) implement a complaints management system that must record the following information (if known or provided) about complaints received at the Premises concerning any environmental impact of the activities undertaken at the Premises:
 - (i) name and address of the complainants (if consented);
 - (ii) date and time of complaint;
 - (iii) date and time of alleged incident;
 - (iv) alleged source of the incident;



- (v) general description of the alleged incident, including any environmental or health impacts reported by the complainant;
 - (vi) wind direction, wind speed and temperature at time of alleged incident;
 - (vii) likely source of the alleged incident; and
 - (viii) actions taken by the Licensee to address the complaint, including the outcome of any investigation(s) and action(s) to verify any impacts.
- (b) complete an annual analysis and review of complaints recorded under 4.1.3(a) to identify any common factors and root cause of complaints and proposals to address these.

4.2 Reporting

4.2.1 The Licensee must submit to the CEO an Annual Environmental Report within 30 calendar days after the end of the annual period (30 November). The report must contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form ¹
-	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
1.2.3	Summary of Waste processing	
1.2.5	Summary of recycled output sampling and testing	
3.1.3	Summary of calibration testing	
3.3.1	Summary of Monitoring of inputs and outputs	
3.4.1	Summary of ambient air quality	
4.1.2	Annual Audit Compliance Report	https://www.der.wa.gov.au/our-work/consultation/69-closed-consultations/320-draft-guidance-statement-publication-of-aacrs or as otherwise available on the Department's website
4.1.3	Complaints summary	None specified

4.2.2 The Licensee must ensure that the Annual Environmental Report also contains:

- (a) any relevant process, production or operational data recorded; and
- (b) an assessment of the information contained within the report against previous monitoring results and Licence limits.

4.2.3 The Licensee must submit the information in Table 4.2.2 to the CEO according to the specifications in that table.

Table 4.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form ¹
-	Copies of original monitoring reports submitted to the	Not Applicable	Within 14 days of the CEO's request or made available	As received by the Licensee from third parties



	Licensee by third parties		at any inspection of the premises	
1.2.9	Record of any non-confirming waste types	Not applicable	To be made available at any inspection of the premises	As recorded by the Licensee

4.3 Notification

4.3.1 Licensee must 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 ¹	Format or form ²
-	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
-	Discharge or removal of leachates from the ASS treatment area	As soon as practicable but no later than 5pm of the next usual working day.	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act



Schedule 1: Maps

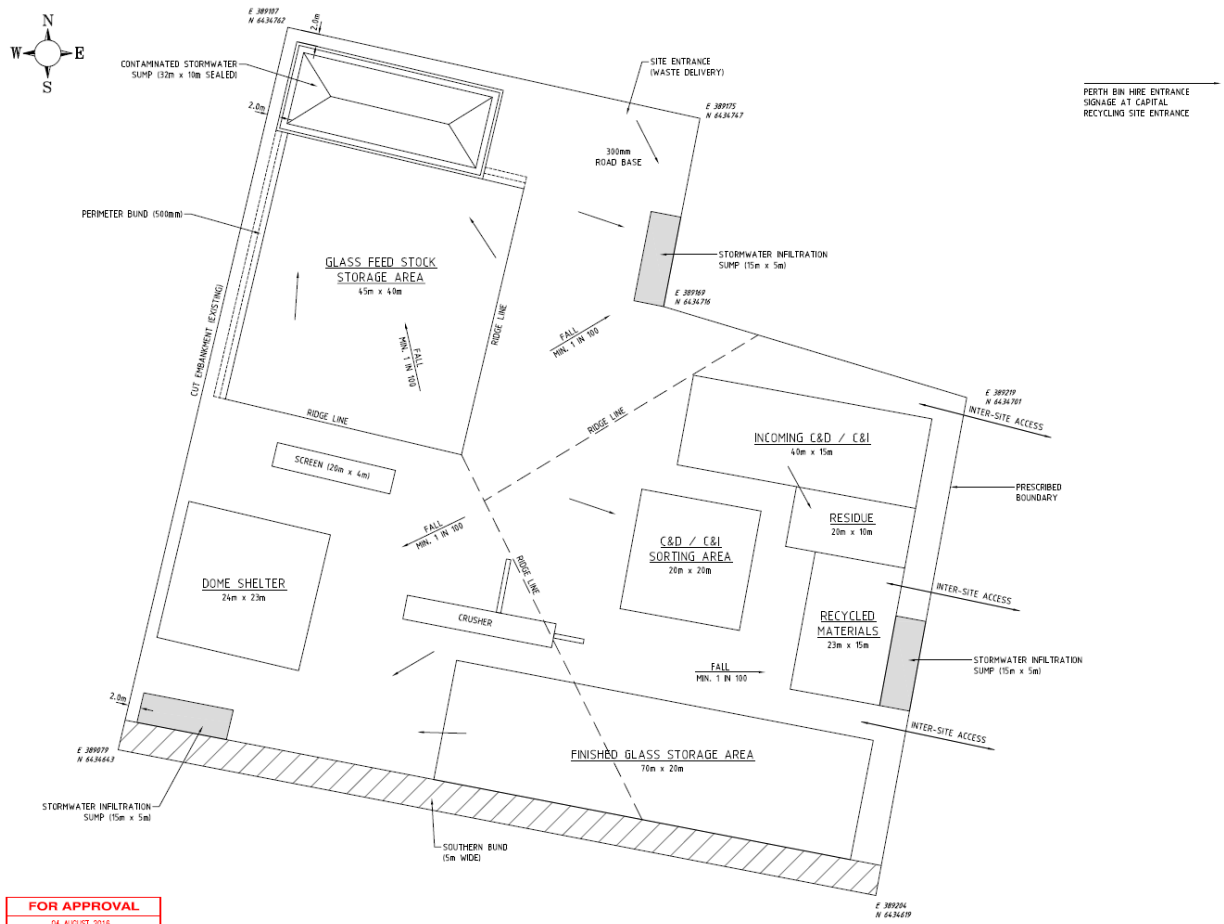
Premises map

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





Site layout – Perth Bin Hire



FOR APPROVAL
04 AUGUST 2016



Schedule 2: Forms

Licence: L8966/2016/1
Form: N1

Licensee: Appala Holdings Pty Ltd
Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	



Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Appala Holdings Pty Ltd	
Date	



Appendix 1: Section 3.3 of DER Asbestos Guidelines (page 10-11)

- 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 process and 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			
Material Type	Type of load		
	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



Section 3.4 of DER Asbestos Guidelines (page 11 - 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.

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			
Material Type	Type of load		
	Commercial	Public, uses, 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
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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



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.



Section 4.3 of 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 $50 \mu g/m^3$.

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 1000m³ of product.

Conveyor sampling

Sampling of road base and screened sand products must occur at a minimum rate of 1 sample per 70m³ of a product output. Suspect asbestos material or areas must be targeted for sampling.



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 through 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 600m³) 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 10m² 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 1cm³ 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.



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Appala Holdings Pty Ltd t/a Perth Bin Hire

Licence: L8966/2016/1

Registered office: 2 Brook Street
EAST PERTH WA 6004

ACN: 009 360 730

Premises address: Postans Glass Processing and Waste Sorting Facility
119 McLaughlan Road
POSTANS WA 6167
Lot 2129 on Plan 173137 and bound by the coordinates

Point	Easting	Northing
1	64347.62	389107
2	64347.47	389175
3	64347.16	389169
4	64347.01	389219
5	64346.19	389204
6	64346.43	389079

Issue date: Monday, 11 December 2017

Commencement date: Monday, 11 December 2017

Expiry date: Thursday, 18 April 2019

Decision

Based on the assessment detailed in this document the Department of Water and Environmental Regulation (DWER), has decided to issue a Licence. DWER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Caroline Conway-Physick
Licensing Officer

Decision Document authorised by: Steve Checker
Delegated Officer



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1 Purpose of this Document

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



2 Administrative summary

Administrative details		
Application type	Works Approval ☐ New Licence ☒ Licence amendment ☐ Works Approval amendment ☐	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	61A	165 000 tonnes per annual period
Application verified	Date: 22/04/2016	
Application fee paid	Date: 03/05/2016	
Works Approval has been complied with	Yes ☒ No ☐ N/A ☐	
Compliance Certificate received	Yes ☒ No ☐ N/A ☐ Received 6/11/2017	
Commercial-in-confidence claim	Yes ☐ No ☒	
Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes ☐ No ☒	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	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 <i>Environmental Protection Act 1986</i>)?	Yes ☐ No ☒ Department of Water consulted Yes ☐ No ☒	
Is the Premises within an Environmental Protection Policy (EPP) Area? Yes ☐ No ☒ If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes ☒ No ☐ The Peel Harvey EPP sets nutrient water quality objectives for the entire Peel Inlet and Harvey Estuary. Dust emissions from the operation of the premises will be required to comply with the Kwinana EPP.		



3 Executive summary of proposal and assessment

1. Background

Appala Holdings Pty Ltd trading as Perth Bin Hire (PBH), has applied for a concurrent Works Approval and Licence to operate a new prescribed premises in accordance with the *Environmental Protection Act 1986*. The Premises is located at 119 McLaughlan Road, Lot 2129 on Plan 173137, Postans.

PBH are proposing to construct and operate a solid waste facility under Category 61A of the *Environmental Protection Regulations 1987*. The proposal is for the facility to accept inert waste including used glass and construction and demolition waste (C&D), for sorting, crushing and recycling. The proposed annual material throughput for the facility is as follows:

- glass processing 65,000 tonnes per year; and
- mixed waste sorting and recycling 100,000 tonnes per year;

with a total of 165,000 tonnes per annual period.

2. Occupancy and Planning

The Premises is located within the City of Kwinana in an area zoned 'Metropolitan Region Scheme for 'public purposes (Water Authority of WA)' under the West Australian Planning Commission (WAPC).

This site is Crown Reserve with Water Corporation listed as the holder of the Management Order. Farfield Holdings Pty Ltd (trading as Capital Recycling) is the main lease holder and have sub-leased a section of the premises to PBH. A 'confirmation of acceptance' letter was signed by the Proponent with the sub-lessor on 10 October 2016. A sub-lease agreement was signed on 21 July 2017.

Approval from the Minister for Lands for the sub-lease was received from the applicant via email on 17 July 2017.

3. Environmental Setting

The closest sensitive receptors, being residential properties, are located approximately 800 metres (m) south of the Premises boundary in the residential suburb of Orelia.

Surrounding land use north and west of the premises is zoned 'rural' with Alcoa Australia's discharge ponds approximately 200 m west and 780 m north and Water Corporation's Kwinana Wastewater Treatment Facility approximately 100 m north of the premises (infiltration ponds are located approximately 50 m to the north).

The application area is separated from Beeliar Park by McLaughlan Road, Postans. The site is also located approximately 500 m west of conservation category wetlands (CCW) known as 'The Spectacles' that is located within the regional park. The site is approximately 1.5 km from the nearest known occurrence of a threatened ecological community and 1.8 kilometres from the nearest known conservation significant flora species. The site is 600 m east of the Threatened and Priority Ecological Communities (TEC/PEC) Buffers for *Melaleuca huegelii*. The Premises is immediately adjacent to a Bushforever site.

The Premises is approximately 3.3 km west of the P1 Public Drinking Water Source Areas and Jandakot underground Water Pollution Control Area within Cockburn Groundwater Area. The Proponent has reported in their submission that 'the underlying hydrogeological region of the site is the unconfined Superficial Swan Aquifer. The site is located in the Jandakot Mound. The area is mainly underlain by Bassendean Sand and the aquifer has a maximum saturated thickness of approximately 40.0 metres.



A desktop assessment of groundwater by DWER identified groundwater depth varies across the premises from 16.82 metres below ground level (mBGL) in the north (Water Corporation borehole KW8) to 7.54 mBGL in the south (Water Corporation borehole KW2), with monitoring bore 'MW1' being present within the premises. Total Dissolved Solids is approximately 617 milligrams per litre (marginal). The Premises is located within the Wungong-Southern River Catchment watershed.

According to advice received by DWER from the the Department of Water (DoW – now part of DWER), there is an existing groundwater licence on the Lot to extract 35,000 kilolitres per annum from the Cockburn Groundwater Area (Valley subarea). This licence expires on 19 December 2016.

The site is classified by DWER as *possibly contaminated – investigation required*. The reason for the classification is due to the Wastewater Treatment plant being on site since the 1970's and a composting facility that was operated on the southern part of the Lot for approximately 10 years. A contamination assessment of the composting facility on the southern portion of the site was carried out in 2014. Soil analysis conducted as part of this investigation found that no potential contaminants were detected within the soils on the southern portion the site above Health or Ecological Investigation Levels as published in 'Assessment Levels for Soil, Sediment and Water' (Department of Environment and Conservation, 2010), which were the relevant guidelines at that time. No groundwater investigations were included in this assessment and potential groundwater impacts resulting from operation of the composting facility remain un-characterised.

The premises falls within an area managed under the *Environmental Protection (Kwinana)(Atmospheric Wastes) Policy Approval Order 1999* (Kwinana EPP) and the *Environmental Protection Kwinana)(Atmospheric Wastes) Regulations 1992* (Kwinana EPP Regulations), which provides ambient air quality standards and ambient air quality limits for Sulphur dioxide and particulates.

4. Proposal

The works approval application identifies that there will be two waste management activities on site, glass screening and crushing and mixed waste recycling as detailed below:

4.1 Glass screening and crushing operations

PBH proposes to accept, store and undertake screening and crushing of glass at the premises. The process involves removing glass and metal from the input feedstock and separate waste residue. The glass material is delivered in bins of input feedstock in bins of up to 30m³ or in semitrailers (20m³ per trailer). Processing of material occurs on a daily basis. The glass goes through a dual process, whereby it is screened via two screens and crushed via a Maxtrak 1000SR glass crusher to produce three output materials; the processed glass, recycled metal and a waste residue (bottle caps, metal foil, paper and plastics). The glass material is ground down to a suitable size to be used as a construction material (i.e. road base) via the glass crusher. The extracted metal is sent to downstream metal recyclers. The remaining residue is separated from the screened and crushed products and subsequently removed from site to a Class II landfill. The same vehicles that deliver the feedstock material remove the processed material and waste material.

The recycled glass is received from off-site Materials Recovery Facilities (MRF's) and source-separated recyclable glass collections across the Perth metropolitan area. The material consists of glass cullets with a small percentage of non-glass material being bottle tops (plastic and steel), bottle labels (paper and plastic) and liquid residues. Non-glass material is directed to a Class II landfill within 48 hours of being processed.

4.2 Mixed waste recycling

PBH also conducts sorting and recycling of mixed waste. This waste is predominantly from residential clean-up, Commercial & Industrial (C&I) waste and C&D waste. There is no municipal solid waste received on site. C&I waste mainly comprises of metal off-cuts, carpets and timber. C&D waste



mainly comprises of concrete, bricks, sand, and general building rubble. Residential waste mainly comprises of furniture, plastics, e-waste and green-waste.

The mixed waste material will be received on site, inspected for conformance with standard operating procedures (only green-waste and glass no other putrescible waste, no asbestos, liquid waste or other problematic waste materials) and then sorted to separate the material into reusable or recyclable material and waste residue. Reusable and recyclable material is stored separately and subsequently removed to downstream recyclers, whilst waste residue will be placed into waste bins or trucks and removed from the premises to an appropriate facility for disposal.

5. Risk Assessment and Decision

The key potential emissions expected from the proposal are noise and odour. All potential emissions and discharges for construction and operational phases have been assessed as detailed in section 4.

The Fitness and Competency of the proponent has also been considered.



4 Decision table

The overarching legislative framework of this assessment is the *Environmental Protection Act 1986* (Act) and the *Environmental Protection Regulations 1987*. DWER Guidance Statements which inform the assessment in accordance with this legislation include:

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessments (February 2017)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Land Use Planning (February 2017)*
- *Guidance Statement: Licence duration (August 2016)*

Where other references have been used in making the decision they are detailed in the decision document.

Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Prescribed premises boundary/ occupancy	N/A	In order for a works approval or licence to be validly granted under the Act in respect of a premises, DWER must be satisfied that the person to whom the instrument is granted is the occupier of the premises. It was identified that the proposed prescribed premises boundary for this premises overlaps with the existing prescribed premises boundary of the adjacent Kwinana Wastewater Treatment Plan (WWTP) licensed under Part V of the EP Act by licence L6543/1991/11 and also an area of land for which DWER has received a works approval and licence application from Appala Holdings Pty Ltd. The prescribed premises boundary issue has since been resolved, the application boundaries no longer overlap and licence L6543/1991/11 has been granted an amendment notice on 12 September 2016, to realign premises boundaries.	N/A DWER Internal record (A1458030)



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		Perth Bin Hire's (PBH) proposed premises encompass part of Lot 2129, which is part of and adjoins Capital Recycling facility lease area. PBH is proposing to sub-lease the premises from Farfield Holdings Pty Ltd., Capital Recycling facility, who are required to fence the entire Lot 2129 on Plan 173137, and who also has management requirements to ensure security to the premises. Management of unauthorised entry into PBH premises will be managed through Licence conditions if a Licence is granted. As Capital Recycling is receiving recycled glass products directly from PBH, an internal fence requirement is considered to inhibit operational needs as a significant amount of the PBH premises boundary is delineated by earth bunds (all of southern and more than half of eastern boundary), containment infrastructure (part of northern boundary) or cut embankment (western boundary). Under section 54 of the EP Act the CEO has the power to grant a works approval over an area that includes a prescribed premises (the land on which activities within Schedule 1 of the EP Regs take place) and over an area that is wider than but connected with the prescribed premises. The noise bunds are directly connected with the proposed operations on the premises and should therefore be included within the prescribed premises boundary. The Proponent submitted a letter (dated 21 June 2017) from the primary lessor, Water Corporation, which gives confirmation of permission of the sub-lease arrangement between Capital Recycling (Farfield Holdings Pty Ltd) and Perth Bin Hire. However, Water Corporation, Mike Jaworski, confirmed that: <i>"The matter requires endorsement by Landgate, and once such has been obtained the sublease document will be formally endorsed by the Water Corporation."</i> A letter of endorsement for the sub-lease from the Department of Lands, Planning and Heritage was provided by the proponent dated 12 July 2017. The sub-lease agreement was signed 21 July 2017. The Delegated Officer has therefore determined that the Proponent has legal rights to occupy the premises.	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Fitness and competency	N/A	When assessing and making a decision on whether to grant a licence the CEO or his delegates can have regard to the fitness and competency of the proposed works approval holder/licensee. A search of DWER's Industry Licensing System (ILS) and Incident Complaint Management System (ICMS) has been undertaken of Perth Bin Hire, as well as a review of records held by DWER. The Proponent has experience in waste recycling. The Proponent has held a licence for Category 62 activities in Bayswater since 2011 (L8595/2011/1). A search of DWER's Incident Complaints Management System found that - A site inspection in 2015 found a number of non-compliances with the Licence conditions. The non-compliances included storing a hydrocarbon drum outside of a bund, damage to fencing, and not submitting an Asbestos Management Plan and there was no complaints system in place. This investigation is still on-going. - In 2011 a Letter of Warning was sent to Perth Bin Hire for failure to comply with their Works Approval. This non-compliance related to PBH's failure to notify DWER of a change to the design of the premises. The risk assessment undertaken for this premises demonstrates that with the exception of asbestos fibres, the risks associated with emissions from the premises are low-moderate without regulatory controls. Regulatory controls will be imposed on the works approval and any licence granted to mitigate risks further. Compliance inspections of the premises will be undertaken on a regular basis to determine compliance with works approval conditions. A current works approval W5970/2016/1 which was issued on 4 August 2017 was found to be compliant against the works approval and has resulted in the subsequent issuing of L8966/2016/1. The Delegated Officer has determined that the Licence will not be refused due to PBH's historical compliance issues.	Licence L8595/2011/1 Works Approval W5970/2016/1



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Decision Document: L8966/2016/1
File Number: DER2016/000629



Environmental Protection Act 1986
Decision Document: L8966/2016/1
File Number: DER2016/000629



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		of odours. <u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Medium <u>Regulatory Controls</u> Condition 1.2.4 1)b) and 4)g) specific within the Licence that glass waste shall be processed at the premises within 48 hours (under normal operating conditions) and green waste is to be removed within 7 days to limit the potential for decomposition and odour generation. Residual liquid waste and leachate from the glass crushing activities is to be contained within the lined containment sump to evaporate or to be removed off-site within 24 hours to limit the generation of odour. This has been defined within condition 1.2.4 1)c) of the proposed Licence. <u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Medium	
Noise	W1.2.2 - W1.2.4 L2.3	Construction and Operation Refer to detailed assessment of noise in Appendix A.	Application supporting documentation. <i>Environmental Protection (Noise) Regulations 1997.</i> DWER Records (A1069451)



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Monitoring general	L3.1	Operation Conditions 3.1.1 – 3.1.4 define the general monitoring requirements for the sampling and analysis of monitoring parameters stated within the Licence and requirements for calibration of monitoring equipment.	
Fugitive emissions	W1.2.1 – 1.2.2 L1.2 L2.2 L3.2	<u>FUGITIVE DUST RISK ASSESSMENT</u> Refer to detailed assessment of fugitive dust risk assessment in Appendix A. <u>ASBESTOS FIBRES RISK ASSESSMENT</u> Construction No waste is proposed to be accepted during the construction stage therefore there are no risks associated with asbestos fibres to be considered. Operational stage <u>Emission Description</u> <i>Emission:</i> Asbestos fibres from processing and handling of C&D waste on the premises which has the potential to contain asbestos. <i>Impact:</i> Asbestos fibres can have severe health impacts including asbestosis and mesothelioma. The nearest residents are located approximately 800m south, and there are industrial/commercial premises located approximately 100m west and 800m north. DWER has also received a proposal for a category 13, 61A and 62 solid waste facility on the same lot that has been assessed in conjunction with this application. <i>Controls:</i> Perth Bin Hire have proposed the following controls: customers are advised that asbestos is not accepted on site, visual inspection of incoming wastes, all materials being received on site are registered with receipt dockets identifying the types of wastes being received, if asbestos is found the load is rejected, accepted loads are directed to the sorting area where C&D waste is wet down and inspected. If asbestos is identified load is immediately re-loaded and handled in accordance with DWER's Asbestos Guidelines.	Code of Practice for the Safe Removal of Asbestos 2 nd Edition <i>Health (Asbestos) Regulations 1992</i> Application supporting documentation Perth Bin Hire, Postans Glass Processing and Waste Sorting Facility, <i>Asbestos Management Plan</i> , 8 March 2016. Perth Bin Hire, Postans Glass Processing and Waste Sorting Facility, <i>Dust Management Plan</i> , 8 March 2016



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<u>Risk Assessment</u> <i>Consequence:</i> Severe <i>Likelihood:</i> Rare <i>Risk Rating:</i> High <u>Regulatory Controls</u> Given the high risk rating for asbestos, conditions have been specified in the licence that are in line with the DWER's Asbestos Guidelines and the proponents commitments detailed in their 'Asbestos Management Plan (AMP)' to mitigate risks to public health. Licence conditions will: • specify that waste containing visible asbestos or asbestos containing material shall not be accepted; • specify that where waste is found to be non-conforming, the waste is segregated and removed offsite; • specify that any non-conforming waste due to asbestos content is bagged, clearly labelled and segregated. • specify that the Licensee must advise all source material providers that asbestos or potentially asbestos contaminated material is not accepted at the Premises. • include a 'no asbestos' clause in all contracts with material sources. • include a requirements for Licensee to maintain a clearly visible sign saying 'no asbestos' at the entry to the Premises. • specify that only Inert Waste Type 1 may be accepted with a signed declaration from the supplier that warrants that the load does not contain any asbestos or ACM. • require the Licensee to visually inspect all loads prior to unloading and during unloading to ensure that the material does not contain visible asbestos or ACM. • specify what actions are to occur when asbestos or ACM is confirmed in accordance with the DWER's Asbestos Guidelines.	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		• specify that the Licensee must maintain Classified Loads in a damp state using appropriate dust suppression measures. • specify that the Licensee must ensure that suspected loads are classified as 'high risk' and managed in accordance with the DWER Asbestos Guidelines. • specify that the Licensee must maintain records of all accepted loads which have been determined as Classified Loads or as 'high risk'. • specifies that the Licensee must continue to visually inspect material on the Premises at all storage, sorting and processing states to identify asbestos. • specify that the Licensee must maintain material on the Premises in at least three separate stockpiles for unprocessed and processed material tested for ACM. • require the Licensee to ensure that any recycled output contains no more than 0.001%w/w asbestos and require recycled outputs to be tested to ensure compliance with this limit. These have been defined within conditions 1.2.5 – 1.2.20 of the proposed Licence. <u>Residual Risk</u> <i>Consequence:</i> Severe <i>Likelihood:</i> Rare <i>Risk Rating:</i> High <u>LEACHATE RISK ASSESSMENT</u> Construction and Operation <u>Emission Description</u> <i>Emission:</i> Leachates from the storage and treatment of waste from the glass crushing operations. DWER considers recycled glass waste material to be putrescible as it has the potential to generate leachates from the residual liquid wastes. Leachates generated from the storage of green-waste which may contain organic compounds, terpenes, phenols and/ or have a high biological oxygen demand (BOD) and nutrient	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		concentrations being generated from the green-waste stored at the premises. <i>Impact:</i> Potential contamination of surrounding land or groundwater (7.5-16.8 mBGL) from leachate run-off and infiltration. Possible indirect impacts on Spectacles wetland. <i>Controls:</i> Perth Bin Hire have proposed to contain all contaminated leachates from the feedstock glass (unprocessed material) storage area within a GCL containment sump able to hold a '1-in-10' year ARI critical rainfall event. <u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Medium <u>Regulatory Controls</u> Condition 1.2.1, 1.2.2 and Table 1.2.1 has been included on the Works Approval to ensure that waste acceptance, sorting and processing area be constructed to have a hardstand base (minimum 150 mm) with a minimum permeability of $\leq 1 \times 10^{-6}$ m/s or better, laid to a fall to retain all run-off within the boundary of the premises and designed to contain all stormwater run-off. The containment sump will be constructed of a geosynthetic clay liner or similar to achieve a permeability of $\leq 2.8 \times 10^{-11}$ m/s which is to contain all contaminated stormwater from the waste processing, sorting and storing areas. Licence condition 1.2.3 has been imposed to maintain infrastructure, as detailed in Table 1.2.1 of the Works Approval, to ensure leachate is managed appropriately and taken off-site to a suitably licensed liquid waste facility. <u>Residual Risk</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Medium	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<u>HYDROCARBON STORAGE RISK ASSESSMENT</u> Construction and Operation <u>Emission Description</u> <i>Emission:</i> Hydrocarbon spill from diesel, oils and grease storage on site. <i>Impact:</i> Hydrocarbons may enter surface water or groundwater in the area, causing aquatic organism death or degradation of the surrounding ecosystems. Groundwater is found at a depth of between 7.5 and 16.8 mBGL and the nearest natural surface water body is located approximately 532 m to the east of the premises. <i>Controls:</i> The works approval application states that a bulk hydrocarbon (diesel) for mobile vehicle and equipment refuelling will be stored on site. The hydrocarbon will be stored in a purpose built, self-bunded fuel dispensing container. These units come with self-contained fuel pump, bowser and spill kit. There will be no other chemicals stored on site. <u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Medium <u>Regulatory Controls</u> Table 1.2.1 sets out the required specification for the management of the hydrocarbon storage tank which is proposed as a self (double) bunded metal tank system. Licence condition 1.2.3 require the hydrocarbon storage tank to be maintained to the specification included in Table 1.2.1 of the works approval and to require refuelling to be undertaken on an impermeable hard-stand area. <u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Rare	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<i>Risk Rating:</i> Low <u>CONTAMINATED STORMWATER RISK ASSESSMENT</u> <u>Construction and Operation</u> <u>Emission Description</u> <i>Emission:</i> Contaminated stormwater from the storage and processing of crushed glass or green waste, that incorporates sediments and/or hydrocarbons; fire waste water or contaminated stormwater discharged during the operation of the Premises. <i>Impact:</i> Contaminated stormwater may enter surface waters in the area causing aquatic organism death or bioaccumulation of contaminants in the surrounding ecosystems. The nearest natural surface water body is located approximately 532 m to the east of the premises and is a conservation category wetland. <i>Controls:</i> Perth Bin Hire have proposed to contain all contaminated stormwater from the feedstock glass (unprocessed material) storage area within a GCL containment sump able to hold a '1-in-10' year ARI critical rainfall event. All uncontaminated stormwater is to be directed to stormwater infiltration sumps (3) which will be located within the premises boundary, in the north west, east and south west of the premises (See Schedule 1: Maps – Site layout within the Works Approval). <u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate <u>Regulatory Controls</u> Stormwater from operational areas (glass storage and crushing area, green waste and general waste storage and treatment areas and vehicle wash down areas) has the potential to become contaminated with silts, hydrocarbons, metals, nutrients. Such contaminants represent a risk to the Peel Harvey catchment and its EPP requirements and the adjacent Spectacles wetland.	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		Condition 1.2.1, 1.2.2 and Table 1.2.1 includes a requirement for a contaminated stormwater/ leachate containment sump that is lined to achieve a permeability of $\leq 2.8 \times 10^{-11}$ m/s, and three uncontaminated stormwater infiltration sumps to be designed and constructed to retain all forms of (uncontaminated/ contaminated) stormwater run-off within the premises boundary. Any potentially contaminated stormwater that has come into contact with processing of waste on site, must be treated as contaminated, and contained within the lined sump to evaporate or to be later removed from the premises to a suitably licensed liquid waste facility. Licence condition 1.2.3 has been imposed to operate and maintain infrastructure, as detailed in Table 1.2.1 of the Works Approval. <u>Residual Risk</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Medium <u>WINDBLOWN WASTE RISK ASSESSMENT</u> Construction and Operation <u>Emission Description</u> <i>Emission:</i> Windblown waste <i>Impact:</i> Windblown waste can negatively impact the amenity of those on nearby properties as well as flora and fauna. The nearest residents are located approximately 800m south, and there are industrial/commercial premises located approximately 100m north and 800m north. DWER has also received a proposal for a category 13, 61A and 62 solid waste facility on the same lot that is currently being assessed. A Bush Forever site is located immediately adjacent to the eastern boundary.	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<i>Controls:</i> The proponent has stated that the types of waste to be accepted on site is not likely to contribute to windblown waste. However they have committed to using dust suppression techniques to ensure that material does not become windblown. <u>Risk Assessment</u> <i>Consequence:</i> Slight <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low <u>Regulatory Controls</u> The nature of the construction works and operational activities were not considered likely to generate windblown waste (excluding fugitive dust which is considered in Appendix A). It is considered that low risk emissions can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i>. General process specifications have been defined within condition 1.2.4 of the Licence. <u>Residual Risk</u> <i>Consequence:</i> Slight <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low	
Monitoring of inputs and outputs	W – N/A L3.3	Construction The proponent will not accept waste during the construction phase, therefore conditions relating to monitoring of inputs and outputs were not required on the works approval. Operation Licence conditions have been imposed to require the licensee to monitor inputs and outputs. This information is required to determine compliance with throughput limits, operation in accordance with construction specifications and to validate annual fee submissions. Reporting requirements have been included within section 4.2 of the	Application supporting documentation. General provisions of the <i>Environmental Protection Act, 1986</i>.



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		proposed Licence.	
Ambient environmental monitoring	L3.4	Operation Condition 3.4.1 requires that the Licensee undertake monitoring of ambient air quality. This condition relates to sections 1.2, 2.2 and 3.2 of the proposed Licence. See Appendix 1 for full risk assessment of fugitive dust emissions.	
Information	W2.1.1 – 2.1.3 L4.1 L4.2	Construction Conditions 2.1.1 to 2.1.3 require the submission of a compliance document on completion of the construction phase and prior to operation of the premises. This is to ensure that DWER can verify that the works have been constructed as required. Operation Condition 4.1.1 has been imposed to set out the requirements for any records that are required under this licence, such as ensuring they are legible and retained for 6 years which assists DWER in regulating the conditions of this licence. Condition 4.1.2 requires the occupier to undertake an audit of their operations against the conditions of the licence and to report on this compliance in an Annual Audit Compliance Report (AACR). This condition assists DWER in regulating the occupier's compliance with licence conditions and allows and opportunity for DWER to review the occupier's environmental performance. Condition 4.1.3 requires a complaints management system to be implemented where the occupier can internally address any issues that arise from premises operations. This condition is required as per the risk assessments conducted above for nuisance emissions. DWER will review these complaints as reported in the Annual Environmental Report (AER) and will consider whether a reassessment of any regulatory controls is required to address any complaints. Condition 4.2.1 requires the licensee to submit an AER. The AER is required to include	N/A



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		the AACR and a summary of the complaints required under condition 4.1.3. The AER is also required to provide results for the monitoring of waste processing, recycled output sampling and testing, summary of calibration testing, monitoring of inputs/output, ambient air quality monitoring and a summary of any malfunction of pollution control equipment or any environmental incidents. DWER reviews all of the data provided in the AER to assess compliance with the licence conditions and to monitor the environmental impacts from the premises. Condition 4.2.2 requires the Licensee to submit relevant process or production data, and assessment against previous monitoring results and licence limits. Condition 4.2.3 requires the Licensee to submit non-annual reporting requirements including copies of original reports and records of non-conforming wastes. Condition 4.3.1 requires the licensee to notify the CEO if there is a breach of any licence limit (i.e. processing or emission limits). The notifications required under this condition gives DWER appropriate notice of any environmental impacts at the premises so that DWER can determine if any further action is required to address the incident.	
Licence Duration	L8966/2016/1	Planning approval was granted by WAPC on 18/04/2017 with conditions (See Appendix B). In accordance with the conditions of the planning approval, the works approval was granted for a period of two years from the date of planning approval. The Licence duration has been determined in accordance with DWER's <i>Guidance Statement, Licence duration</i> (August 2016) for the same period.	DWER Internal Records: A1378858 A1417743 A1485263 A1557140



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
16/05/2016	Application advertised in West Australian (or other relevant newspaper)	N/A	N/A
16/05/2016	Application referred to City of Kwinana	City of Kwinana provided the following comments on 2 June 2016: • A planning application was lodged to the City on 24 December 2015 for Crushing and Recycling of Building Materials at Lot 2129 (119 McLaughlan Road, Postans. • The application was referred to the Western Australian Planning Commission (WAPC) for determination as the property is reserved for 'Public Purposes – Water Authority of WA' under the Metropolitan Region Scheme. The City assessed the application and provided written comments to the WAPC on 19 May 2016. • The City provided comments to the WAPC supporting the crushing and recycling of building material component of the proposal subject to stringent conditions and a 2 year time limited approval. • The City however, does not support the processing, handling, treatment or stockpiling of Acid Sulfate Soils at the site due to potential offsite odour impacts. As such, the City recommended that the acid sulfate soil treatment be deleted from the application. • It is noted that a planning approval was previously issued in 1997 by the WAPC for a biosolids composting site. The activities at the site produced significant offsite odour impacts that negatively impacted and affected nearby residences in the City. • In regard to the DWER Licence and works approval application, the City is extremely concerned over Acid	As set out in DWER's Guidance Statement "<i>Land Use Planning, October 2015</i>", the works approval will be consistent with any planning approval granted. Note: The acid sulfate soil treatment is in reference to Farfield Holdings Pty Ltd concurrent works approval and licence application.



Date	Event	Comments received/Notes	How comments were taken into consideration
		Sulfate Soil treatment and processing which is assumed to be included in Categories 61A and 62. With regards to the planning application, it is the City's view that the proposal contained a lack of quantifiable measures over the odour emissions from the stockpiling and treatment of such soils. • Due to the proximity of the site to the residential area in Orelia, the City has significant concerns that with the potential negative impacts (noise and dust) associated with the proposed crushing and recycling operations. • The City believes the category 61A and 62 licences will be used to facilitate the processing and stockpiling of Acid Sulfate soils which has the potential to adversely affect nearby residents. In order then to minimise (and monitor) potential impacts and to provide surety to the community, the City recommends that the Licence Application for a Category 61A and 62 is refused and the category 13 – crushing of building material application is supported and be time limited to two years (in accordance with the recommended planning approval conditions).	
18/05/2016	Application referred to Department of Water	The former Department of Water (DoW) – now part of DWER - provided the following comments on 3 June 2016: • There is an existing groundwater licence at Lot 2129 McLaughlan Road Postans to extract 35,000kL/annum from the Cockburn Groundwater Area (Valley subarea). This licence however, expires on 19 December 2016 and an application to renew the licence will be required prior to the expiration date. • DoW recommends the stormwater system on the site is suitably bunded and designed to grade to lined stormwater holding ponds. The ponds should be lined with material of permeability of no less than 2×10^{-10}m/s consistent with Water Quality Protection Note 26: <i>Liners for containing pollutants using synthetic membranes</i> (DoW, 2013).	DWER has considered the comments provided by DoW and has included condition 1.2.1, 1.2.2 and Table 1.2.1 in the Works Approval that requires the hardstand to be laid that drains all leachate and stormwater to a low permeability containment sump or pond with a capacity to store a 72 duration, 1 in 20 year AR critical rainfall event without overflow.



Date	Event	Comments received/Notes	How comments were taken into consideration
18/05/2016	Application sent to Department of Parks and Wildlife (DPaW)	Department of Parks and Wildlife provided the following comments on 31 May 2016: • DPaW notes that the application is separated from Beeliar Regional Park by McLaughlan Road. And is approximately 500 metres to the west of the conservation category wetland (CCW) known as The Spectacles. • The application area is approximately 1.5km from the nearest known occurrence of a threatened ecological community and 1.8km from the nearest known conservation significant flora species. • The supporting information states that stormwater is to be directed away from waste storage areas into the stormwater basins to the south of the site and therefore will be directed away from the CCW and its buffer. Given the separation distances and appropriate management of surface water flowing away from the CCW, there are unlikely to be any impacts to nearby wetlands, conservation significant flora species or threatened ecological communities in relation to the proposed land use. • There may be a low risk of noise disturbance to waterbirds utilising The Spectacles for feeding and / or breeding purposes.	DWER has noted the information provided by DPaW and considered it in its assessment of the application.
10/06/2016	Application referred to Water Corporation (landowner)	Water Corporation provided the following comments on 20 June 2016: • Clarification is required around the application under activity 67A. The Water Corporation lease agreement excludes the processing of organic waste on the site; • Tyre washing facilities – the Corporation is supportive of appropriately managed vehicle and plant wash down facilities, however, tyre waste processing activities are not allowable under the lease agreement; • A number of contaminated sites are located around the site boundary. As such, given that the proponent proposes to abstract and use groundwater from the site, it	DWER provided both applications for Lot 2129 to Water Corporation for consideration, however it is noted that the comments provided by Water Corporation are for a Category 67A which relate to Farfield Holdings Pty Ltd application. DWER has noted the comments provided by Water Corporation and has



Date	Event	Comments received/Notes	How comments were taken into consideration
		is recommended that groundwater is tested bi-annually for the contaminants of concern associated with the surrounding contaminated sites; • The Environment Management Plan mentions that loads of soil will be tested according to the Landfill Waste Classification Guidelines. It is recommended that a statistically appropriate sample of this analysis data is provided in the annual report; and • Environmental monitoring of the site should include sampling and analysis of the stormwater management system and sump located on site.	considered them in its assessment of the application.
17/11/2017	Draft Licence and Decision report referred to applicant	One comment was received via email from Ian Watkins on 20/11/2017, as follows: “Page 9, Table 1.2.3, Clause 1)b) All waste to be processed within 48 hours. We request that this clause be removed as all of the putrescible waste (unprocessed glass) will be stored within the contained area which drains to the lined contaminated stormwater sump and hence there is adequate environmental control of this material prior to processing.”	DWER Records (A1564610) Condition 1.2.4, Table 1.2.3, point 1) b) has been removed and the following has been included: <i>“Ensure no pooling or ponding occurs within the storage area and any leachates drain freely to the lined containment sump.”</i>



6 Risk Assessment

Table 1: Emissions Risk Matrix

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



Appendix A

FUGITIVE DUST RISK ASSESSMENT

Construction

Emission: Fugitive dust emissions during construction and installation of infrastructure and equipment including construction of the noise bund.

Impact: Dust can negatively impact the health, welfare and amenity of those on nearby properties as well as flora and fauna. The nearest residents are located approximately 800m south, and there are industrial/commercial premises located approximately 100m north and 800m north.

Controls: No specific dust controls were proposed in the application for the construction stage.

Risk Assessment

Consequence: Slight

Likelihood: Unlikely

Risk Rating: Low

Regulatory Controls

Construction works under the works approval are not considered likely to generate significant quantities of dust. It is considered that low risk dust emissions can be sufficiently regulated under section 49 of the *Environmental Protection Act 1986*. As such no conditions have been imposed on the works approval to control fugitive dust.

Works Approval Conditions 1.2.1, 1.2.2 and Table 1.2.1 requires dust management measures to be installed as follows to allow dust control during the operational stage:

- Install a free standing sprinkler system at the sorting and processing area and along the external edges of all bunkers and storage bays.
- A 10km/hr sign installed at the entrance to reduce potential dust generated from vehicles as the road base is limestone.

Residual Risk

Consequence: Slight

Likelihood: Unlikely

Risk Rating: Low

Operation

Emission Description

Emission: Dust emissions generated by the operation of screening equipment activities of C&D waste, processing of stockpiles of waste / recycled materials and operation of the sorting, unloading and loading of waste material.

Impact: Dust can negatively impact the health, welfare and amenity of those on nearby properties as well as flora and fauna. The nearest residents are located approximately 800m south, and there are industrial/commercial premises located approximately 100m north and 800m north.

Controls: Perth Bin Hire has proposed the following dust control measures – all equipment utilised at the facility will have dust suppression systems fitted and stockpiles will be covered by large radius sprinklers.

Risk Assessment

Consequence: Moderate

Likelihood: Possible

Risk Rating: Medium

Regulatory Controls

Licence conditions will be imposed as follows:



- Provision of reticulated sprinklers and sprays to screens with a requirement for the spray reach and rate of flow of sprinklers to be maintained in good working order to ensure complete coverage of screens.
- All loads to be thoroughly wet before entering the tipping area using the automated gantry spray at the site entrance or water tanker.
- Water piping including hoses and sprinklers to extend to the top of all stockpiles to help maintain stockpiles in a damp state.
- Stockpiles not to exceed 7 meters in height from the base of the stockpile in line with requirements on licences for similar operations. Higher stockpiles are exposed to higher wind velocities and therefore greater potential of dust emissions. Higher stockpiles also have a higher discharge height and therefore dust can potentially travel a greater distance before it settles (larger impact plume).
- Separation distances of 3m to be maintained between stockpiles and between stockpiles and the premises boundary to allow use of the water cart for dust suppression.
- To require all equipment used for dust suppression to be maintained and operated at all times, during operational hours.
- To require all vehicles on the premises to drive at 10 km/hour or less to reduce the likelihood of dust generation from vehicular movement.
- To require complaints to be recorded and investigated to ensure that the root cause can be determined, and the regulatory controls placed on the licence can be reviewed if necessary.

The above requirements have been defined within the following conditions of the proposed Licence:

- Condition 1.2.3 and 1.2.4, table 1.2.3 defines the operation and process limits, and waste processing specifications for the proposed premises operation.

In addition, other conditions have been included within the proposed Licence to require monitoring and reporting of fugitive dust emissions:

- Condition 2.2.1 defines specific limits for the operation of the premises, in accordance with NEPM ambient air quality standards, and with consideration of the Environmental Protection (Kwinana) (Atmospheric Wastes) Regulations 1992.
- Condition 2.2.2 requires that the Licensee operate and maintain ambient air quality monitoring equipment at the premises. This has been defined within section 3.4 of the proposed Licence.
- Condition 3.2.1 requires all dust suppression equipment be maintained and operational at all times, during operational hours.
- Condition 3.4.1 requires the Licensee to undertake monitoring of ambient air quality.
- Condition 4.2.1 requires the Licensee report on all monitoring undertaken in relation to ambient air quality monitoring.

Residual Risk

Consequence: Moderate

Likelihood: Unlikely

Risk Rating: Medium



NOISE RISK ASSESSMENT

Construction

Emission: Noise generated by construction works including the construction of the noise bund.

Impact: Noise can cause a nuisance for people on nearby properties and may disturb native fauna. The nearest residents are located approximately 800 metres south and there are industrial / commercial premises located adjacent to the northern and western boundaries.

Controls: No specific noise controls were proposed in the application for the construction stage.

Risk Assessment

Consequence: Minor

Likelihood: Unlikely

Risk Rating: Medium

Regulatory controls

Regulation 13 of the EP Noise Regulations provides that, subject to a number of requirements, construction sites are not required to meet the assigned noise levels set out in Regulations 7 and 8 of the EP Noise Regulations. For the provisions of regulation 13 to apply the works must occur on a "construction site" where the sole or principal activity is construction work. DWER considers that the works proposed at the works approval stage meet the definition of construction work in the Noise Regulations.

Conditions have been included (1.2.1, 1.2.2 and Table 1.2.1) to require a noise bund to be constructed along the entire southern boundary of the premises and the boundary between Perth Bin Hire and the proposed waste recycling facility (see operational risk assessment below).

Based on the moderate risk posed by noise, primarily as a result of the construction of the noise bund, Condition 1.2.3 has been included on the works approval to ensure that construction operations are limited to 7am and 5pm Monday to Saturday as the daytime hours.

Residual Risk

Consequence: Minor

Likelihood: Unlikely

Risk Rating: Medium

Operation

Emission Description

Emission: Noise emissions from crushing and screening activities (including the use of the barrel heater), heavy machinery operation and vehicle movements on site. Activities on site may contribute to cumulative impacts from proposed operations on same lot (waste recycling facility) given that multiple crushers and screeners may operate at the one time.

Impact: Noise can cause a nuisance for people on nearby properties and may disturb native fauna. The nearest residents are located approximately 800 metres south and there are industrial / commercial premises located adjacent to the northern and western boundaries.

Controls: Perth Bin Hire has proposed the following noise control -

The supporting documentation for the application included Herring Storer Acoustics report 'MDW Environmental Services, Environmental Noise Assessment, 119 McLaughlin Road, Recycling Facility (Demolition Recycling & Sub-Lease Glass Recycling)', March 2016. This report stated that noise from the facility had been modelled with an earth bund along the southern side of the site boundary at a height of 5 metres above the site floor, and the additional inclusion of an earth bund on the eastern boundary of the premises (50 m length x 5 m height).

The report advised that:



- Full operational noise levels have been modelled for operation of the glass crushing operations with two loaders (Komatsu WA470 & WA320), an excavator, two screeners and a Maxtrak 1000SR glass crushing operations.
- Cumulative impacts have been modelled in this assessment with Perth Bin Hire and the waste recycling facility on the same lot. The equipment that has been modelled in this assessment includes one crusher (either impact or jaw crusher), excavator, loader and road truck on site. The facility has been modelled with an earth bund along the southern side of the site boundary at a height of 5m above site floor level. The assessment states that the predicated noise emissions will comply with the Noise Regulations.

The noise assessment report completed by 'Herring Storer' was considered by DWER's Noise Services. Their advice is summarised below:

- With regard to the Glass Operation, it is noted that the after 7am modelling has not included any truck noise, which is an inherent part of this operation. However, given the sound power levels of the other associated equipment the contribution of one to two additional trucks would not be significant.
- Adjacent properties are deemed noise sensitive properties under the Noise Regulations as they are either zoned rural or have no zoning.
- Residential receivers – After 7am, low risk of exceedance at residences in Orelia. Before 7am, risk of exceedances is greater and more likely to be tonal noise impacts.
- Adjacent properties – Activities after 7am present the greatest risk. Noise levels are highly likely to be tonal and may exceed assign levels by 5dB and up to 8dB if additional equipment is used on the premises.
- Cumulative impacts with proposed solid waste depot on the same lot – assessment shows a slight risk of exceedance at Orelia residences and significant exceedances (up to 11 dB) at property to the west. Exceedance may be limited to 5dB if industrial assigned level is applied due to Aloca being in occupation of the premises.
- The noise assessment report that considers impacts from both the Perth Bin Hire and the solid waste depot proposes a 5m noise bund be constructed between the 2 premises (solid waste depot and PBH) and along the southern boundary of the whole lot. A noise bund may completely negate the cumulative noise effects at the near boundaries/adjacent properties although noise bund may not be sufficient to mitigate the moderate exceedance for before 7am operations.
- Reversing alarm noise is not considered by the Acoustic Report and may be particularly relevant to operations before 7am. Limit the use of equipment with tonal reversing alarms before 7am.
- Premises to only operate the following equipment at any one time, as per the noise assessment justification for meeting the *Environmental Protection (Noise) Regulations 1997*:
 - 1 x Glass crusher
 - 1 x Excavator
 - 2 x Loaders
 - 1 Barrel heater and 1 x Screen

An amendment to the proposed premises operation, as submitted on 8 August 2016, identified the use of a barrel heater for the cleaning of recycled glass received at the premises, in place of using a screen. The screen is proposed as back-up in the event of the barrel heater not being operational. The Proponent did not provide any relevant noise information relating to the barrel heater within the additional submission.

On review by DWER Environmental Sciences (Noise Branch) it was identified that: in the absence of relevant noise information on the barrel heater; and if it is assumed the barrel heater has similar noise levels to the screen; and if it is used in conjunction with one screen; its contribution to the overall noise emissions is likely to be insignificant, < 0.5dB. Being enclosed in a dome shelter is likely to



improve on this for most receiver locations, although the open ends may focus the noise and result in a slightly greater increase in noise in the direction of the openings. The change in operation was considered 'unlikely to affect the outcome for the southern receivers, adjacent or residential'.

A relocation of operational structures within the premises boundary has altered (more to the western boundary) and it is considered that the original modelling may not accurately reflect the potential areas of impact from the premises operation and degree of risk posed.

DWER requested a cumulative noise assessment for all premises operating on Lot 2129 on Plan 173137. A cumulative noise assessment (*Cumulative Environmental Noise Assessment, dated March 2017, prepared by Herring Storer Acoustics*) was submitted to DWER on 21 March 2017 for review. The conclusion of this report by Herring Storer was that:

DWER Noise Regulation advice indicates that PBH may exceed noise limits under worst case scenario conditions if tonality is present. The advice notes that an exceedance due to tonality may be able to be mitigated through the increase in height of the eastern noise bund from 5 m to 8 m. This particular issue has been addressed through condition 1.2.4(b) of the Works Approval, which requires a noise verification study (which includes an assessment of tonality) and requires mitigation measures to be implemented where compliance is not achieved.

DWER Noise Branch technical advice determined that:

"The Perth Bin Hire operations are more open and will present a comparatively increased noise contribution off-site. As the Perth Bin Hire operations has the potential to cause exceedance at some receivers, noise contour maps have been provided for two scenarios: with a 5 m high barrier and with a 8 m high barrier to the east of the Perth Bin Hire operations.

No background level data has been presented to justify the possibility of tonality not being measurable at the residential receivers due to existing background noise, however, the noise levels will comply at the residents to the south and to the north of the site regardless of the existence of tonality in the emissions.

The parks and recreation (Bush Forever) land to the east would be considered noise sensitive (area other than a highly sensitive area) under the Environmental Protection (Noise) Regulations 1997 (Noise Regulations). This requires a L_{A10} assigned level of 60 dB to be met, or a level of 55 dB if the noise source is tonal. The cumulative noise scenario incorporating the 5 m high barrier to the east of the Perth Bin Hire operations indicates possible marginal (+1 dB) exceedance of the assigned levels at the Bush Forever site boundary, if the noise source is tonal. Should the source be tonal, the model incorporating the 8 m high barrier to the east of the Perth Bin Hire operations indicates likely compliance. Given the amount of land on which the Perth Bin Hire operations are located the footprint required for a 8 m high earth bund seems to be able to be accommodated, if required.

The Department of Agriculture and Food agricultural research station land to the south would be considered noise sensitive (area other than a highly sensitive area) under the Noise Regulations, with an L_{A10} assigned level of 60 dB. The modelling indicates general compliance for this receiver.

The land on which the three operations are located is a defined area situated inside WaterCorp land. The WaterCorp land is unzoned but controlled via a management order by WaterCorp. The balance of the WaterCorp land is therefore assumed to be industrial and a separate premises, with an L_{A10} assigned level of 65 dB. Both cumulative noise scenarios indicate compliance at the current WaterCorp operations to the north but indicate some small areas of possible non-compliance at the boundary to the west, south and east. This may not be an issue if WaterCorp intend for the abutting WaterCorp land to act as a buffer and not to be occupied.



Alcoa to the west however is a separate premises with a separate occupier. Approximately half of the Alcoa premises lies within the Kwinana Industrial Area (KIA), with the half to the east, near to the project site, being outside the KIA. Industrial premises within the KIA have a L_{A10} assigned level of 75 dB while industrial premises outside the KIA have a L_{A10} assigned level of 65 dB. Both cumulative noise scenarios indicate levels marginally above 65 dB will be received near the boundary on the Alcoa premises. Given that a substantial portion of the Alcoa premises is allowed to receive levels 10 dB higher, this may not be an issue."

Risk Assessment

Consequence: Moderate

Likelihood: Possible

Risk Rating: Medium

Regulatory Controls

Conditions 1.2.1, 1.2.2 and Table 1.2.2 have been imposed on the works approval to require inclusion of noise bunds to be constructed.

Condition 1.2.4 has been included within the Works Approval to require the verification of the noise modelling submitted, within 6 months under full operation. This is as a result of changes to the initial proposal as submitted by the Proponent and the lack of modelling or verification information on the potential noise emissions from equipment as well as changes to premises layout and the inclusion of an eastern bund. As a Licence may be in force during this period, this condition may be duplicated in the Licence if required.

The following licence conditions have been imposed to:

- limit the operation of screening and crushing equipment prior to 7am and after 5 pm, for operation only between Monday to Saturday, with no operation on Sunday or Public Holidays;
- prohibit the use of equipment with tonal reversing alarms before 7am and after 5 pm, for operation only between Monday to Saturday;
- limit the equipment that can be operated at one time to:
 - 1 x Truck, and
 - 1 x Excavator, and
 - 2 x Loaders, and
 - 1 x glass crusher; and
 - 2 x Screens or 1 Barrel Heaterto ensure risk of exceedances of assigned noise levels is low;
- require the noise bunds are maintained to a minimum height of 6 m along the length of the southern boundary and 5 m on the eastern boundary (See Condition 1.2.2, 1.2.4 and Schedule 1: Maps of the Works Approval);
- to require a noise verification study to be undertaken to verify the findings of the noise modelling assessment.
- require the recording and management of noise complaints.

The above licence requirements have been defined within the proposed Licence under the following conditions:

- Condition 1.2.3, table 1.2.2 specifies the equipment that may be used at the premises.
- Condition 2.3.1 specifies the type and number of infrastructure/ equipment that may be operated at any given time at the premises, and the use of noise mitigation/ attenuation equipment. This has been determined through the cumulative noise assessment undertaken for the premises and through assessment by DWER against the *Environmental Protection (Noise) Regulations 1997*.



- Condition 2.3.2 defines the requirements for a noise verification study to be undertaken, as outlined within the Works Approval condition 1.2.4.

Residual Risk

Consequence: Moderate

Likelihood: Unlikely

Risk Rating: Medium



Appendix B

Excerpt: Western Australian Planning Commission (WAPC) – Planning Approval (dated 18/4/2017)

“CONDITIONS

1. *This approval is for a period of two years from the date of this approval. Subsequent to that date the facility is to cease unless a fresh approval is granted by the Western Australian Planning Commission.*
2. *The hours of operation shall be between the hours of 7am and 5pm Monday to Saturday and not at all on Sundays or Public Holidays.*
3. *The facility is to be implemented and operated in accordance with the Postans Glass Processing and Waste Sorting Facility Planning application, dated 22 September 2016, prepared by IW projects, and the Cumulative Environmental Noise Assessment, dated March 2017, prepared by Herring Storer Acoustics, to the satisfaction of the Western Australian Planning Commission on the advice of the City of Kwinana.*
4. *The preparation and implementation of a Bushfire Management Plan that demonstrates a "BAL-29" rating for the facility, to the satisfaction of the Western Australian Planning Commission on the advice of the City of Kwinana.*
5. *The southern boundary of the facility site is to be screened with vegetation to the satisfaction of the Western Australian Planning Commission on the advice of the City of Kwinana.*
6. *All stormwater drainage shall be contained within the facility site.*
7. *All vehicle parking is to be provided within the facility site.”*