



# Works Approval

## Environmental Protection Act 1986, Part V

**Works Approval Holder:** Appala Holdings Pty Ltd

**Works Approval Number:** W5970/2016/1

**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 of Lot 2129 on Plan 173137 bound by the coordinates below  
and as depicted in Schedule 1.

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:** 4 August 2017

**Commencement date:** 4 August 2017

**Expiry date:** 17 April 2019

The following category from the *Environmental Protection Regulations 1987* cause this Premises to be a prescribed premises for the purposes of the *Environmental Protection Act 1986*:

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 is stored, reprocessed, treated or discharged onto land	1 000 tonnes or more per year	165 000 tonnes per annual period

### Conditions

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

Date signed: 4 August 2017

.....  
**Steve Checker**  
**MANAGER LICENSING (WASTE INDUSTRIES)**

Officer delegated under section 20 of the *Environmental Protection Act 1986*



# Works Approval Conditions

## 1 General

### 1.1 Interpretation

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

1.1.2 In the Works Approval, unless the contrary intention appears:

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

**'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@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au)

**'extreme rainfall event'** means a 1-in-10 year, 72 hour storm event;

**'low permeability'** means a surface with permeability of  $2 \times 10^{-10}$  metres/second or less;

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

**'Schedule 1'** means Schedule 1 of this Works Approval unless otherwise stated;

**'Works Approval'** means this Works Approval numbered W5970/2016/1 and issued under the *Act*; and

**'Works Approval Holder'** means the person or organisation named as the Works Approval Holder on page 1 of the Works Approval.

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

1.1.4 Any reference to a guideline in the Works Approval means the current version of the guideline in force from time to time, and must include any amendments or replacements to that guidelines made during the term of this Works Approval.

### 1.2 General conditions

1.2.1 The Works Approval Holder must ensure that the works specified in Column 1 of Table 1.2.1 meet or exceed the specifications in Column 2 of Table 1.2.1 for the infrastructure in each row of Table 1.2.1.



- 1.2.2 The Works Approval Holder must not depart from the specifications in Column 1 and 2 for the infrastructure in each row of Table 1.2.1 except:
- where such departure is minor in nature and does not materially change or affect the infrastructure; or
  - where such departure improves the functionality of the infrastructure and does not increase risks to public health, public amenity or the environment;

and in accordance with all other Conditions in this Works Approval.

<b>Table 1.2.1: Construction specifications</b>	
<b>Infrastructure</b>	<b>Specifications (design and construction)</b>
1) Waste Acceptance, sorting and processing area (all)	<p>Premises must include the following:</p> <ol style="list-style-type: none"> <li>Signage at entry points identifying waste acceptance types and emergency contact phone numbers;</li> <li>Glass feedstock storage area constructed with a compacted recycled road base with a minimum thickness of 500 mm) to achieve a permeability of <math>\leq 1 \times 10^{-6}</math> m/s or better (bund on the western edge and graded to fall towards the lined containment sump on the northern edge of the premises).</li> <li>All other hardstand areas to be constructed 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);</li> <li>Provided with a free standing sprinkler system along the sorting and processing area and spray jets on screening and crushing equipment.</li> <li>Radius sprinklers for material stockpiles.</li> <li>Installation of a barrel heater within a dome shelter.</li> </ol>
2) Contaminated Stormwater/ leachate containment sump	<p>Contaminated stormwater/ leachate containment sump must be designed and constructed to meet the following specifications:</p> <ol style="list-style-type: none"> <li>Capacity to store a '72 hour duration, 1-in-10 year' ARI critical rainfall event without overflow.</li> <li>The containment sump is to be lined with a geosynthetic clay liner or similar (permeability of <math>\leq 2.8 \times 10^{-11}</math> m/s);</li> <li>Designed to receive all contaminated stormwater or leachate from the feedstock glass (unprocessed material) storage area; and</li> <li>Designed to maintain a minimum freeboard of 500 mm.</li> </ol>
3) Stormwater Infiltration sumps (3)	<p>Three stormwater infiltration sumps to be constructed as follows:</p> <ol style="list-style-type: none"> <li>To receive uncontaminated stormwater from all areas other than the feedstock glass (unprocessed material) storage area;</li> <li>Constructed of in-situ soils for the capture of all uncontaminated stormwater within the premises boundary for the purposes of infiltration;</li> <li>Design to contain all stormwater generated from an extreme rainfall event; and</li> <li>To be located on the southern and eastern boundary of the premises.</li> </ol>
4) Hydrocarbon storage tank	<p>The Hydrocarbon storage tank is to be constructed as follows:</p> <ol style="list-style-type: none"> <li>1 x above ground self (double) bunded metal storage tank; and</li> <li>Includes 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</li> <li>1 x impermeable storage tank placed upon a concrete hardstand; and</li> <li>surrounded by an impermeable bund capable of containing 110% of the volume of the hydrocarbon storage tank.</li> </ol>
5) Internal roads	Low speed signage ( $\leq 10$ km/hr) to be installed within the premises boundary



and parking area	at the entrance to all trafficable areas.
6) Noise management	Earth noise bunds are to be constructed as follows: The noise bunds must be constructed 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.

- 1.2.3 The works approval holder must ensure that plant machinery and vehicles involved in the construction of the works must operate only between 7 am to 5 pm Monday to Saturday only.
- 1.2.4 The Works Approval Holder must:
- (a) undertake a noise verification study within six months after submission of the compliance report for the Works Approval. The noise verification study is to be undertaken during full operation of the premises; and
  - (b) submit a report to the CEO confirming the outcome of the noise verification study which:
    - (i) compares the results of the noise verification study to the initial and cumulative noise modelling assessment submitted for the Work Approval;
    - (ii) includes an assessment of tonality; and
    - (iii) defines compliance to the *Environmental Protection (Noise) Regulations 1997*; and
    - (iv) confirms timeframes for implementation of appropriate mitigation measures, where compliance has not been met.

## 2 Information

### 2.1 Reporting

- 2.1.1 The Works Approval Holder must submit a construction compliance document to the CEO, following the construction of the works and prior to operation of the same.
- 2.1.2 The compliance document must:
- (a) certify that the works were constructed in accordance with the conditions of the works approval;
  - (b) be signed by a person authorised to represent the Works Approval Holder and contain the printed name and position of that person within the company; and
  - (c) include a signed copy of the sub-lease agreement between the Works Approval Holder and Farfield Holdings Pty Ltd (Capital Recycling), which is:
    - (i) subject to confirmation of registration requirements in accordance with the *Transfer of Lands Act 1893*.
- 2.1.3 The Works Approval Holder must provide the CEO with a list of departures which are certified as complying with Condition 1.2.1 at the same time and from the same professional as the certifications submitted in accordance with Conditions 2.1.1 and 2.1.2.



## Schedule 1: Maps

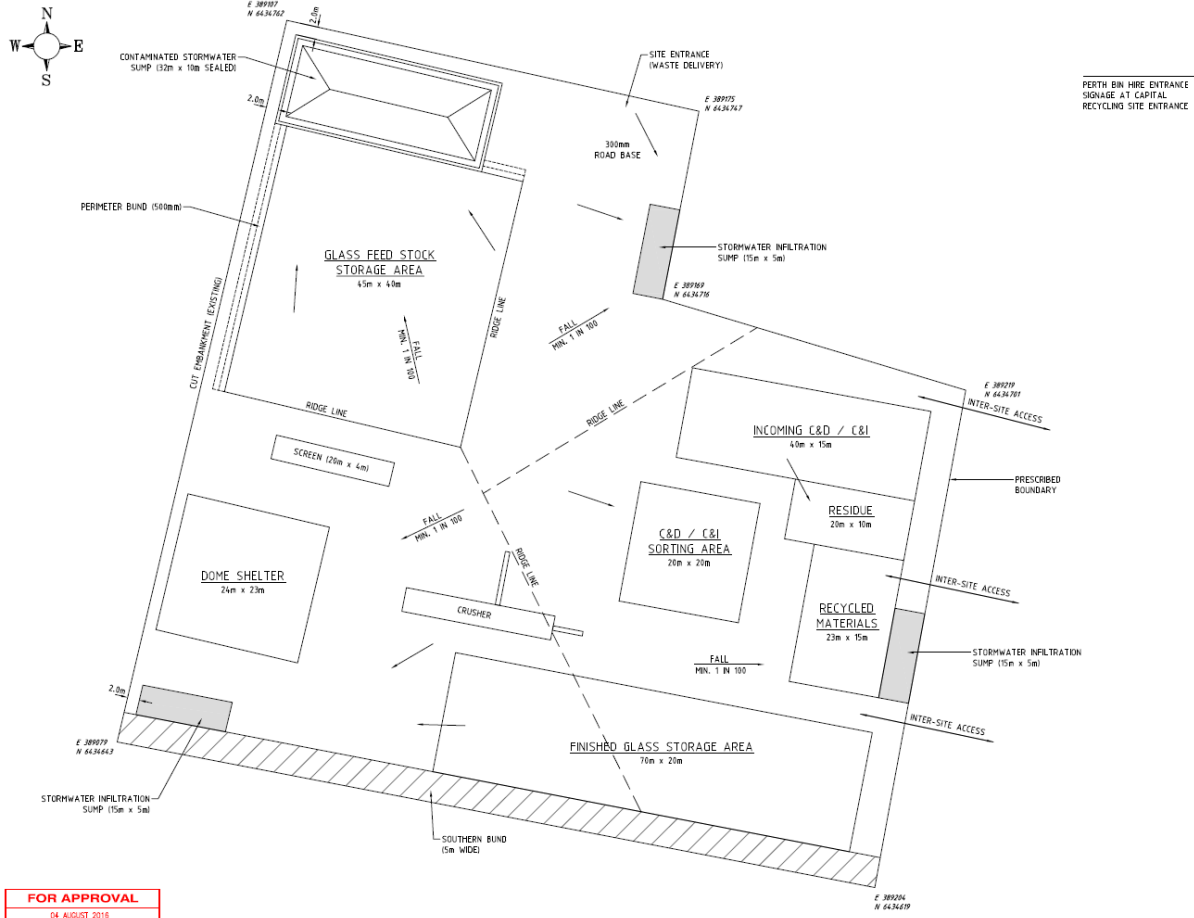
### Premises map

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



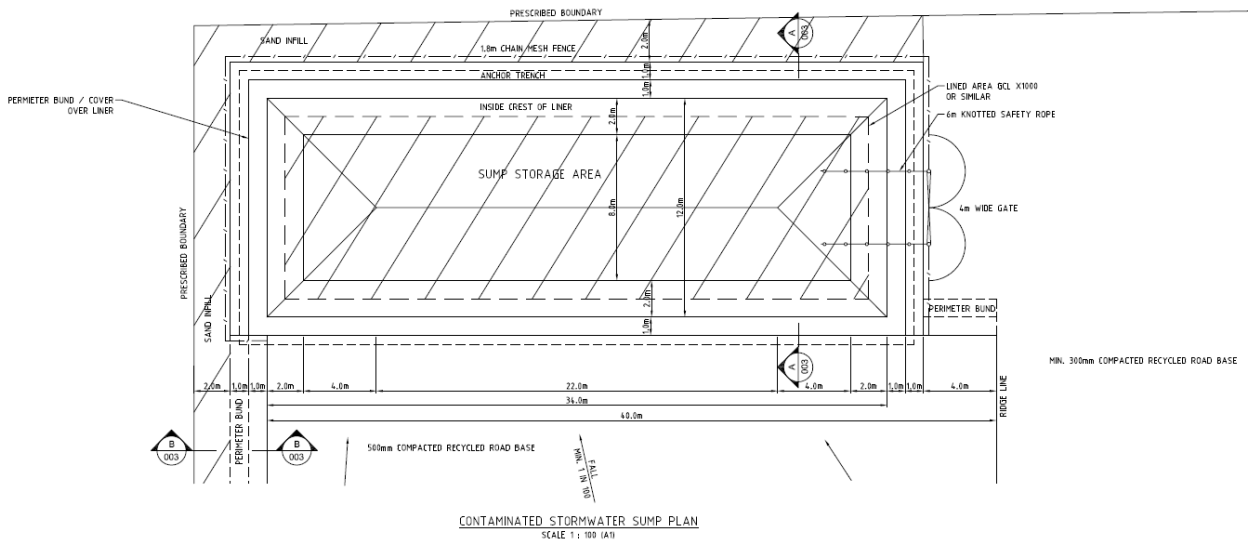


Site layout – Perth Bin Hire



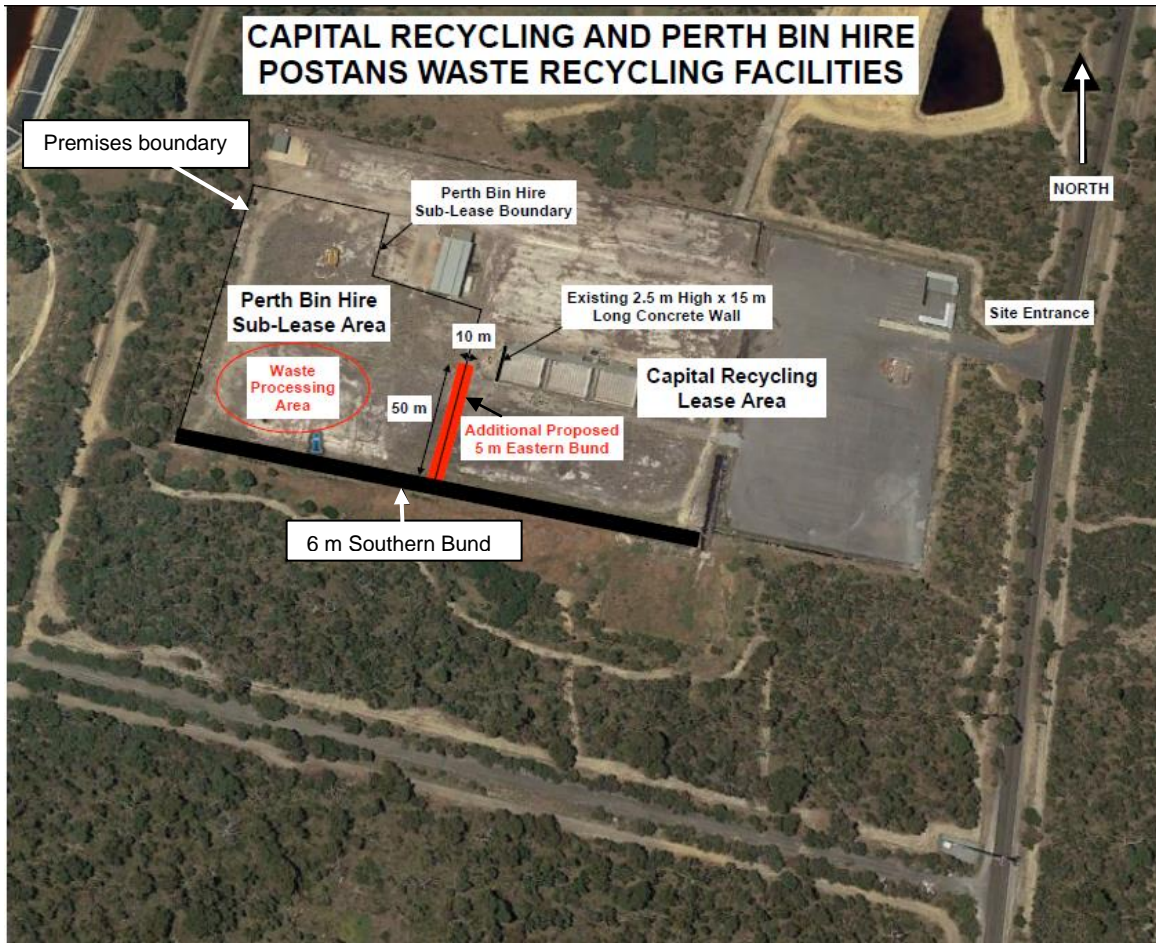
**FOR APPROVAL**  
04 AUGUST 2016

Design of Contaminated stormwater/ leachate containment sump





Location of noise bunds





# Decision Document

## *Environmental Protection Act 1986, Part V*

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

**Works Approval:** W5970/2016/1

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**Issue date:** 4 August 2017

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### Decision

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





Government of **Western Australia**  
Department of **Water and Environmental Regulation**

Decision Document prepared by:

Jo Tuohy/ Caroline Conway-Physick  
Licensing Officers

Decision Document authorised by:

Steve Checker  
Delegated Officer



## Contents

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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 <input checked="" type="checkbox"/>	
	New Licence <input type="checkbox"/>	
	Licence amendment <input type="checkbox"/>	
	Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	<b>Category number(s)</b>	<b>Assessed design capacity</b>
	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 Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No:
		Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No:
		EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
		Department of Water consulted Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Environmental Protection (Kwinana) (Atmospheric Wastes) Policy and Regulations 1992 – Atmosphere, Area C.		
Environmental Protection (Peel Inlet – Harvey Estuary) Policy 1992		
Is the Premises subject to any EPP requirements? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
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. The Department of Water and Environmental Regulation (DWER) has received another concurrent works approval and licence application on the same Lot for a category 13, 61A and 13 solid waste facility. Farfield Holdings Pty Ltd (trading as Capital Recycling) is the main lease holder and intend to sub-lease 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.

It is noted from the City of Kwinana's (the City) advice to DWER that a planning application was lodged by Farfield Holdings Pty Ltd to the City on 24 December 2015 for crushing and screening of building materials at the premises. The application was referred to the WAPC for determination. The City assessed the application and provided comments to the WAPC on 19 May 2016. These comments detailed the City's support for the crushing and recycling of building materials of the proposal subject to stringent conditions for a 2 year time limited period. The comments did not support the processing, handling, treatment or stockpiling of Acid Sulfate Soils (ASS) at the premises due to potential offsite odour impacts. The City recommended that the ASS treatment be deleted from the application.

A planning application was submitted by PBH to WAPC on 25 November 2016, with approval being granted with conditions, on 18 April 2017 (Ref. 26-50104-7). The Approval included seven conditions of which conditions 2, 3 and 6 have direct influence on the regulatory controls within the works approval (See Appendix B).

In addition, confirmation of a sub-lease agreement with Farfield Holdings Pty Ltd (Capital Recycling) is still to be finalised and is dependent on confirming compliance to the *Environmental Protection (Noise) Regulations 1997* and approval from Water Corporation (Primary Lessor). Approval from the Minister of 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 Mount. 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 Department of Water (DoW), 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.

#### **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 30m<sup>3</sup> or in semitrailers (20m<sup>3</sup> 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/ occupier	N/A	<p>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.</p> <p>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</p>	<p>N/A</p> <p>DWER Internal record (A1458030)</p>



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>12 September 2016.</p> <p>Perth Bin Hire's (PBH) proposed premises encompass part of Lot 2129, which 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).</p> <p>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.</p> <p>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:</p> <p><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></p> <p>A letter of endorsement for the sub-lease from the Department of Lands, Planning and</p>	





Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		Heritage was provided by the proponent dated 12 July 2017. The sub-lease agreement however, is still pending. The Delegated Officer has therefore determined that the Proponent is expected to have legal rights to occupy the premises once the sublease is formalised. Operations will not be permitted until evidence of occupancy (a signed sub-lease) has been received by DWER.	
<b>Fitness and competency</b>	N/A	<p>When assessing and making a decision on whether to grant a works approval or 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.</p> <p>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</p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- 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.</li> </ul> <p>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</p>	Licence L8595/2011/1



<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
		<p>compliance with works approval conditions.</p> <p>The Delegated Officer has determined that the works approval will not be refused due to PBH's compliance history.</p>	
<b>General conditions</b>	W1.2.1 - W1.2.3	<p><b>Construction</b> Condition 1.2.1, 1.2.2 and Table 1.2.1 within the works approval define the specifications for the infrastructure that is required to be constructed at the premises. The specifications are generally consistent with those proposed in the application. The risk assessment sections contained in the following sections of this document set out how the specification of infrastructure will mitigate risks to the environment and public health from emissions and discharges.</p> <p>Conditions will be imposed at the licensing stage to require all relevant infrastructure specified in Table 1.2.1 to be maintained to the specifications set in Table 1.2.1.</p> <p><b>Operation</b> Conditions to be imposed on the licence in this section are discussed in the risk assessments contained in the following sections of this Table.</p>	<p>Application supporting documentation</p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations, 2004</i></p>
<b>Emissions general</b>	Licence	<p><b>Operation</b> Conditions will be included in the Licence to require the Licensee to investigate the exceedance of any descriptive or numerical limit specified in the licence.</p>	
<b>Fugitive emissions</b>	W1.2.1 – 1.2.2	<p><b><u>FUGITIVE DUST RISK ASSESSMENT</u></b> Refer to detailed assessment of fugitive dust risk assessment in Appendix A.</p> <p><b><u>ASBESTOS FIBRES RISK ASSESSMENT</u></b></p> <p><b>Construction</b></p>	<p>Code of Practice for the Safe Removal of Asbestos 2<sup>nd</sup> Edition</p> <p><i>Health (Asbestos) Regulations 1992</i></p>



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>No waste is proposed to be accepted during the construction stage therefore there are no risks associated with asbestos fibres to be considered.</p> <p><b>Operational stage</b> <u>Emission Description</u> <i>Emission:</i> Asbestos fibres from processing and handling of C&amp;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 is currently being assessed. <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&amp;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.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Severe <i>Likelihood:</i> Rare <i>Risk Rating:</i> High</p> <p><u>Regulatory Controls</u> Given the high risk rating for asbestos, conditions will be 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:</p>	<p>Application supporting documentation</p> <p>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</p>



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<ul style="list-style-type: none"><li>• specify that waste containing visible asbestos or asbestos containing material shall not be accepted;</li><li>• specify that where waste is found to be non-conforming, the waste is segregated and removed offsite;</li><li>• specify that any non-conforming waste due to asbestos content is bagged, clearly labelled and segregated.</li><li>• specify that the Licensee must advise all source material providers that asbestos or potentially asbestos contaminated material is not accepted at the Premises.</li><li>• include a 'no asbestos' clause in all contracts with material sources.</li><li>• include a requirements for Licensee to maintain a clearly visible sign saying 'no asbestos' at the entry to the Premises.</li><li>• 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.</li><li>• 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.</li><li>• specify what actions are to occur when asbestos or ACM is confirmed in accordance with the DWER's Asbestos Guidelines.</li><li>• specify that the Licensee must maintain Classified Loads in a damp state using appropriate dust suppression measures.</li><li>• specify that the Licensee must ensure that suspected loads are classified as 'high risk' and managed in accordance with the DWER Asbestos Guidelines.</li><li>• specify that the Licensee must maintain records of all accepted loads which have been determined as Classified Loads or as 'high risk'.</li><li>• specifies that the Licensee must continue to visually inspect material on the Premises at all storage, sorting and processing states to identify asbestos.</li><li>• specify that the Licensee must maintain material on the Premises in at least</li></ul>	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>three separate stockpiles for unprocessed and processed material tested for ACM.</p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p><u>Residual Risk</u>  <i>Consequence:</i> Severe  <i>Likelihood:</i> Rare  <i>Risk Rating:</i> High</p> <p><b><u>LEACHATE RISK ASSESSMENT</u></b></p> <p><b>Construction and Operation</b>  <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 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.</p> <p><u>Risk Assessment</u>  <i>Consequence:</i> Moderate  <i>Likelihood:</i> Possible</p>	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Risk Rating: Medium</i></p> <p><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 <math>\leq 1 \times 10^{-6}</math> 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 <math>\leq 2.8 \times 10^{-11}</math> m/s which is to contain all contaminated stormwater from the waste processing, sorting and storing areas.</p> <p>Licence conditions will be imposed to maintain infrastructure as detailed in Table 1.2.1 of the Works Approval and to ensure leachate is managed appropriately and taken off-site to a suitably licensed liquid waste facility.</p> <p><u>Residual Risk</u> <i>Consequence: Moderate</i> <i>Likelihood: Possible</i> <i>Risk Rating: Medium</i></p> <p><b><u>HYDROCARBON STORAGE RISK ASSESSMENT</u></b></p> <p><b>Construction and Operation</b> <u>Emission Description</u> <i>Emission: Hydrocarbon spill from diesel, oils and grease storage on site.</i> <i>Impact: 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></p>	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><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.</p> <p><u>Risk Assessment</u>  <i>Consequence:</i> Minor  <i>Likelihood:</i> Unlikely  <i>Risk Rating:</i> Medium</p> <p><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.</p> <p>Licence conditions will 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 a hard-stand area.</p> <p><u>Residual Risk</u>  <i>Consequence:</i> Minor  <i>Likelihood:</i> Rare  <i>Risk Rating:</i> Low</p> <p><b><u>CONTAMINATED STORMWATER RISK ASSESSMENT</u></b></p> <p><b><u>Construction and Operation</u></b>  <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</p>	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>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).</p> <p><u>Risk Assessment</u>  <i>Consequence:</i> Moderate  <i>Likelihood:</i> Possible  <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u>            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.</p> <p>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 <math>\leq 2.8 \times 10^{-11}</math> 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.</p>	





Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>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.</p> <p>Licence conditions will be imposed to maintain infrastructure as detailed in Table 1.2.1 of the Works Approval.</p> <p><u>Residual Risk</u>  <i>Consequence:</i> Moderate  <i>Likelihood:</i> Unlikely  <i>Risk Rating:</i> Medium</p> <p><b><u>WINDBLOWN WASTE RISK ASSESSMENT</u></b></p> <p><b>Construction and Operation</b>  <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.  <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.</p> <p><u>Risk Assessment</u>  <i>Consequence:</i> Slight</p>	



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> The nature of the construction works and operational activities are 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>. As such no conditions have been imposed on the works approval and no conditions will be imposed on the licence to control windblown waste.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Slight <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p>	
Odour	N/A	<p><b><u>ODOUR RISK ASSESSMENT</u></b></p> <p><b>Construction</b> Odour emissions are not expected to occur from the construction of the facility, therefore no works approval conditions have been imposed.</p> <p><b>Operation</b> <u>Emission Description</u> <i>Emission:</i> Storage and treatment of putrescible waste (glass), decomposition of beverage residues from the destruction of bottles, and green waste has the potential to produce odour. <i>Impact:</i> The nearest residents are located approximately 800 m south, and there are industrial/commercial premises located approximately 100 m north and 800 m north. DWER has also received a proposal for a category 13, 61A and 62 solid waste facility</p>	<p>S49 of the <i>Environmental Protection Act 1986</i></p> <p>Application supporting documentation</p>



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>on the same lot that is currently being assessed. <i>Controls:</i> The proponent has not proposed any specific odour controls. The works approval application does note that waste will be processed with 48 hours which may assist in limiting the generation of odours.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Medium</p> <p><u>Regulatory Controls</u> Condition will be included in the Licence to specify that glass waste shall be processed at the premises within 48 hours 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 removed off-site within 24 hours to limit the generation of odour.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Medium</p>	
Noise	WA – 1.2.2	<p><b>Construction and Operation</b> Refer to detailed assessment of noise in Appendix A.</p>	<p>Application supporting documentation.</p> <p><i>Environmental Protection (Noise)</i></p>



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
			<i>Regulations 1997.</i>
<b>Monitoring of inputs and outputs</b>	W – N/A  L - TBC	<p><b>Construction</b> The proponent will not be accepting waste during the construction phase, therefore conditions relating to monitoring of inputs and outputs are not required on the works approval.</p> <p><b>Operation</b> Licence conditions will be imposed to require the licensee to monitor inputs and outputs. This information is required to determine compliance with throughput limits and validate annual fee submissions.</p>	<p>Application supporting documentation.</p> <p>General provisions of the <i>Environmental Protection Act, 1986.</i></p>
<b>Information</b>	W2.1.1 – 2.1.3  L - TBC	<p><b>Construction</b> 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.</p> <p><b>Operation</b> Licence conditions will be imposed to:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• require 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.</li> <li>• require 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</li> </ul>	N/A



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>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.</p> <ul style="list-style-type: none"> <li>• require the licensee to submit an AER. The AER is required to include the AACR and a summary of the complaints required under condition 4.1.3. The AER is also required to provide results for the monitoring of inputs/output, monitoring of asbestos content of recycled products and a summary of 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. Another condition will also require the Licensee to submit relevant process or production data, and assessment against previous monitoring results and licence limits.</li> <li>• require the Licensee to submit non-annual reporting requirements including copies of original reports and records of non-conforming wastes.</li> <li>• require the licensee to notify the CEO if there is a breach of any licence limit (i.e. processing 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.</li> </ul>	
<b>Works Approval Duration</b>	W5970/2016/1	<p>Planning approval was granted by WAPC on 18/04/2017 with conditions (See Appendix B). In accordance with conditions of the planning approval, the works approval will be granted for a period of two years from the date of planning approval.</p> <p>Approval for a sub-lease agreement was given by Water Corporation to Farfield Holdings Pty Ltd, with lease of the land from Water Corporation approved on 29 February 2016 with Farfield Holds Pty Ltd. The sub-lease between Capital Recycling and Perth Bin Hire is still pending. The Minister for Lands has given approval for the sub-lease arrangement subject to registration requirements under the <i>Transfer of</i></p>	<p>N/A DWER Internal Records:</p> <p>A1378858 A1417743 A1485263</p>



Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Lands Act 1893</i> (dated 12 July 2017). Confirmation of occupancy is required prior to the granting of any proposed Licence for the premises to operate, in accordance with the EP Act.</p> <p>The Licence duration will be determined in accordance with DWER's <i>Guidance Statement, Licence duration</i>, (August 2016) on completion of the works in accordance with the requirements of the Works Approval.</p>	



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
16/05/2016	Application advertised in West Australian	N/A	N/A
16/05/2016	Application referred to City of Kwinana	<p>City of Kwinana provided the following comments on 2 June 2016:</p> <ul style="list-style-type: none"><li>• 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.</li><li>• 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.</li><li>• 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.</li><li>• 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</li></ul>	<p>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.</p> <p>Note: The acid sulfate soil treatment is in reference to Farfield Holdings Pty Ltd concurrent works approval and licence application.</p>



Date	Event	Comments received/Notes	How comments were taken into consideration
		<p>application.</p> <ul style="list-style-type: none"><li>• 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.</li><li>• In regard to the DWER Licence and works approval application, the City is extremely concerned over Acid 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.</li><li>• 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.</li><li>• 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</li></ul>	





Date	Event	Comments received/Notes	How comments were taken into consideration
		<p>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).</p>	
18/05/2016	Application referred to Department of Water	<p>The former Department of Water (DoW) – now part of DWER - provided the following comments on 3 June 2016:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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 <math>2 \times 10^{-10}</math> m/s consistent with Water Quality Protection Note 26: <i>Liners for containing pollutants using synthetic membranes</i> (DoW, 2013).</li> </ul>	<p>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.</p>
18/05/2016	Application sent to Department of Parks and Wildlife (DPaW)	<p>Department of Parks and Wildlife provided the following comments on 31 May 2016:</p> <ul style="list-style-type: none"> <li>• DPaW notes that the application is separated from Beeliar Regional Park by McLaughlan Road. And is</li> </ul>	<p>DWER has noted the information provided by DPaW and considered it in its assessment of the application.</p>



Date	Event	Comments received/Notes	How comments were taken into consideration
		<p>approximately 500 metres to the west of the conservation category wetland (CCW) known as The Spectacles.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• There may be a low risk of noise disturbance to waterbirds utilising The Spectacles for feeding and / or breeding purposes.</li> </ul>	
10/06/2016	Application referred to Water Corporation (landowner)	<p>Water Corporation provided the following comments on 20 June 2016:</p> <ul style="list-style-type: none"> <li>• Clarification is required around the application under activity 67A. The Water Corporation lease agreement excludes the processing of organic waste on the site;</li> </ul>	<p>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</p>



Date	Event	Comments received/Notes	How comments were taken into consideration
		<ul style="list-style-type: none"> <li>• 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;</li> <li>• 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 is recommended that groundwater is tested bi-annually for the contaminants of concern associated with the surrounding contaminated sites;</li> <li>• 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</li> <li>• Environmental monitoring of the site should include sampling and analysis of the stormwater management system and sump located on site.</li> </ul>	<p>by Water Corporation and has considered them in its assessment of the application.</p>
15/07/2016	Proponent sent a copy of draft instrument	<p>Comments received back from Ian Watkins (IW Projects) on 8 August 2016 via email. Changes to the works approval were proposed as follows:</p> <ul style="list-style-type: none"> <li>• Inclusion of a barrel heater to reduce leachate generation in addition to the screen (screen to be used as back-up);</li> <li>• Clarification on the construction of the</li> </ul>	<p>Controls have been updated within Section 1, Table 1.2.1 of the Works Approval and Schedule 1: Maps, to reflect the updated information on construction design at the premises.</p> <p>The Decision Document has been updated within Appendix A – Noise Risk Assessment to reflect the changes.</p>



Date	Event	Comments received/Notes	How comments were taken into consideration
		stormwater/ leachate containment sump, fencing, site access control and signage, waste inspection, input glass feedstock area and stormwater management.	An additional condition has been included within the Works Approval for verification of the noise modelling for the premises operation, under Section 1, Condition 1.2.4.
06/09/2016	Proponent sent a copy of draft instrument	<p>Comments received back from Ian Watkins (IW Projects) on 6 September 2016 via email. Changes to the works approval were proposed as follows:</p> <ul style="list-style-type: none"> <li>• note the order of the clauses in Table 1.2.1</li> <li>• Table 1.2.1 (2) (e) could be left out as it is covered in (b) above</li> </ul> <p>Changes to the decision document were proposed as follows:</p> <ul style="list-style-type: none"> <li>• Decision Table 4 Prescribed premises boundary/occupier - As Capital Recycling is receiving recycled glass products directly from PBH.</li> </ul>	The Works Approval and Decision Document has been updated.
21/03/2017	Proponent submitted a Cumulative Noise Assessment (Herring Storer, March 2017. Ref 21536-5-16031) submitted to DWER.	Assessment identified potential for exceedence of <i>Environmental Protection (Noise) Regulations 1998</i> where tonality characteristics may be an issue from PBH, under worst case scenario.	Document submitted to DWER Noise Branch for comment on 28/03/2017. Comments received on 31 May 2017 and have been recorded within Appendix A of the Decision Document.
18/04/2017	Proponent submitted the Western Australian Planning Commission (WAPC) – Planning approval granted 18 April 2017, submitted to DWER.	WAPC granted approval for development with seven conditions (See Appendix B).	<p>Conditions within the Works Approval have been amended in consideration of conditions 2, 3 and 6 of the planning approval which had direct relevance to conditions within the works approval.</p> <p>These will be considered within any future</p>



Date	Event	Comments received/Notes	How comments were taken into consideration
			Licence for the premises.
22/06/2017	Proponent submitted letter from Water Corporation, Mike Jaworski (dated 21/6/2017), identifying intent to endorse sub-lease arrangement.	<p>The letter confirmed that:</p> <ul style="list-style-type: none"> <li>• Water Corporation give consent to the sub-lease, pending further approvals;</li> <li>• Landgate are required to give endorsement of the sub-lease agreement, which is still pending, prior to Water Corporation formally endorsing sub-lease document.</li> </ul>	DWER considers that the consent is insufficient to progress the Works Approval due to the matter of occupancy not being finalised, as formal endorsement is dependent on Landgate endorsement of the sub-lease, in the first instance.
17/07/2017	Proponent submitted letter from Department of Planning, Lands and Heritage (dated 12/7/2017)	<p>The letter confirmed that: The Minister for Lands giving approval for the sub-lease arrangement provided registration requirements under the <i>Transfer of Lands Act 1893</i> are completed.</p>	DWER has incorporated this information within the Decision Table of the Decision Document 'Works Approval Duration' section, and within condition 2.1.2 of the Works Approval.
24/7/2017	Draft documents submitted to proponent for comment	<p>Proponent submitted comments on draft documents via email from Ian Watkins on 27/07/2017.</p> <p>Three comments were made in relation to descriptions defined within Table 1.2.1 of the Works Approval regarding the following sections: 3) <i>Stormwater Infiltration Sumps</i>; 4) <i>Hydrocarbon storage tank</i>; and</p> <p>One comment regarding the amount of equipment to be used at any given time as per page 35 &amp; 37 of the Decision Report</p>	<p>DWER has considered these comments and has made the following changes:</p> <p>Table 1.2.1, column 1, sections 3 and 4: The descriptions have been updated in accordance with the first three comments made.</p> <p>No additional changes have been made with regards to increasing the limit on equipment to be used at any given time, as per page 35 and 37 of the Decision Report. This request is considered to conflict with the noise assessment undertaken for the premises. No additional supporting documentation was supplied that confirms that an increase in equipment would still ensure compliance against the <i>Environmental Protection (Noise) Regulations 1997</i></p>



## 6 Risk Assessment

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

**Table 1: Emissions Risk Matrix**

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



## Appendix A

### **FUGITIVE 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.

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 will be 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.

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.”*