



# Works Approval

## *Environmental Protection Act 1986, Part V*

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**Works Approval Holder:** Washington's Earth Moving Pty Ltd

**Works Approval Number:** W5985/2016/1

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**Registered office:** 40 Francais Road  
PICKERING BROOK NSW 2000

**ACN:** 112 655 099

**Premises address:** Washington's Earth Moving  
13 Keates Road  
ARMADALE WA 6112  
Being Lot 254 on Plan 57226 as depicted in Schedule 1.

**Issue date:** Wednesday, 28 March 2018

**Commencement date:** Wednesday, 28 March 2018

**Expiry date:** Thursday, 19 December 2019

The following category/s 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
12	Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	50 000 tonnes or more per year	30 000 tonnes per annual period
13	Crushing of building material: premises on which waste building or demolition material (for example, bricks, stones or concrete) is crushed or cleaned.	1 000 tonnes or more per year	20 000 tonnes per annual period
62	Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or re-use.	500 tonnes or more per year	50 000 tonnes per annual period



## Conditions

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

Date signed: 28 March 2018

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Steve Checker  
MANAGER LICENSING (WASTE INDUSTRIES)  
REGULATORY SERVICES (ENVIRONMENT)

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 Environment Regulation;

'CEO' for the purpose of correspondence and notification means;

Chief Executive Officer  
Department Div.3 Pt.V EP Act  
Locked Bag 33  
CLOISTERS SQUARE WA 6850  
Email: [info@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au)

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

'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 W5985/2016/1 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 or code of practice in the Works Approval means the current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guidelines or code of practice 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:
- a) where such departure is minor in nature and does not materially change or affect the infrastructure; or
  - b) where such departure improves the functionality of the infrastructure and does not increase risks to public health, public amenity or the environment;
  - c) and all other Conditions in this Works Approval are still satisfied.

<b>Table 1.2.1: Infrastructure to be constructed</b>	
<b>Infrastructure</b>	<b>Specifications (design and construction)</b>
1) General	Premises must include the following: <ul style="list-style-type: none"> <li>(a) Be fenced with a 1.8 m high security fence with access to the facility through lockable gated entry/ exit points; and</li> <li>(b) 3m high noise attenuation barrier installed along the northern boundary and a 3m high noise attenuation barrier installed along the eastern boundary of the retaining wall.</li> </ul>
2) Shed 1 (Western - Screening)	Constructed to meet the following specifications: <ul style="list-style-type: none"> <li>(a) Open (eastern) side constructed to face Shed 2;</li> <li>(b) 150mm thick tilt-up concrete panels;</li> <li>(c) Northern, and southern side walls constructed with reinforced concrete;</li> <li>(d) Western wall constructed with corrugated iron;</li> <li>(e) Northern wall to be joined with Shed 2 to make a continuous wall along the northern boundary;</li> <li>(f) Floor internally graded to drain any run-off within the shed;</li> <li>(g) Misting system installed within shed to manage dust emissions;</li> <li>(h) Water hose connections provided internally and externally of the shed;</li> </ul>
3) Shed 2 (Eastern - Crushing)	Constructed to meet the following specifications: <ul style="list-style-type: none"> <li>(a) Open (western) side constructed to face Shed 1;</li> <li>(b) 150mm thick tilt-up concrete panels;</li> <li>(c) Northern, eastern and southern side walls constructed with reinforced concrete;</li> <li>(d) Western wall constructed with corrugated iron;</li> <li>(e) Northern wall to be joined with Shed 1 to make a continuous wall along the northern boundary; and</li> <li>(f) Floor internally graded to drain any run-off within the shed;</li> <li>(g) Misting system installed within shed to manage dust emissions;</li> <li>(h) Water hose connections provided internally and externally of the shed.</li> </ul>
4) Dust suppression system	The Dust suppression system shall comprise the following: <ul style="list-style-type: none"> <li>(a) Installation of a timed reticulation system around the stockpile area;</li> </ul>



5) Crusher-Rubble Master Model 80	Installed to meet the following specifications: (a) Fitted with a dust suppression system that will operate at 30L/minute at 200kPa.
6) Screening Plant – Bost Model 5000	Installed to meet the following specifications: (a) Fitted with a dust suppression system installed on the input and output conveyors that will operate at 30L/minute at 200kPa.;
7) Stormwater management	(a) 9 stormwater soakwells to be constructed across the premises. (b) The westernmost soakwell to be connected to the local stormwater drainage system.

Note 1: Where the details and commitments of the documents listed in condition 1.2.1 are inconsistent with any other condition of this works approval, the conditions of this works approval shall prevail.

1.2.3 The works approval holder shall ensure that plant machinery and vehicles involved in the construction of the works must operate only between 7am to 7pm Monday to Saturday.

1.2.4 The Works Approval Holder shall:

- (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 noise modelling assessment submitted for the Work Approval;
  - (ii) defines compliance to the *Environmental Protection (Noise) Regulations 1997*; and
  - (iii) 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 shall 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 shall:

- (a) include certification by a suitably qualified professional engineer that each item of infrastructure in Table 1.2.1 has been constructed in accordance with the specifications in that table; and
- (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.

2.1.3 The Works Approval Holder shall 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.

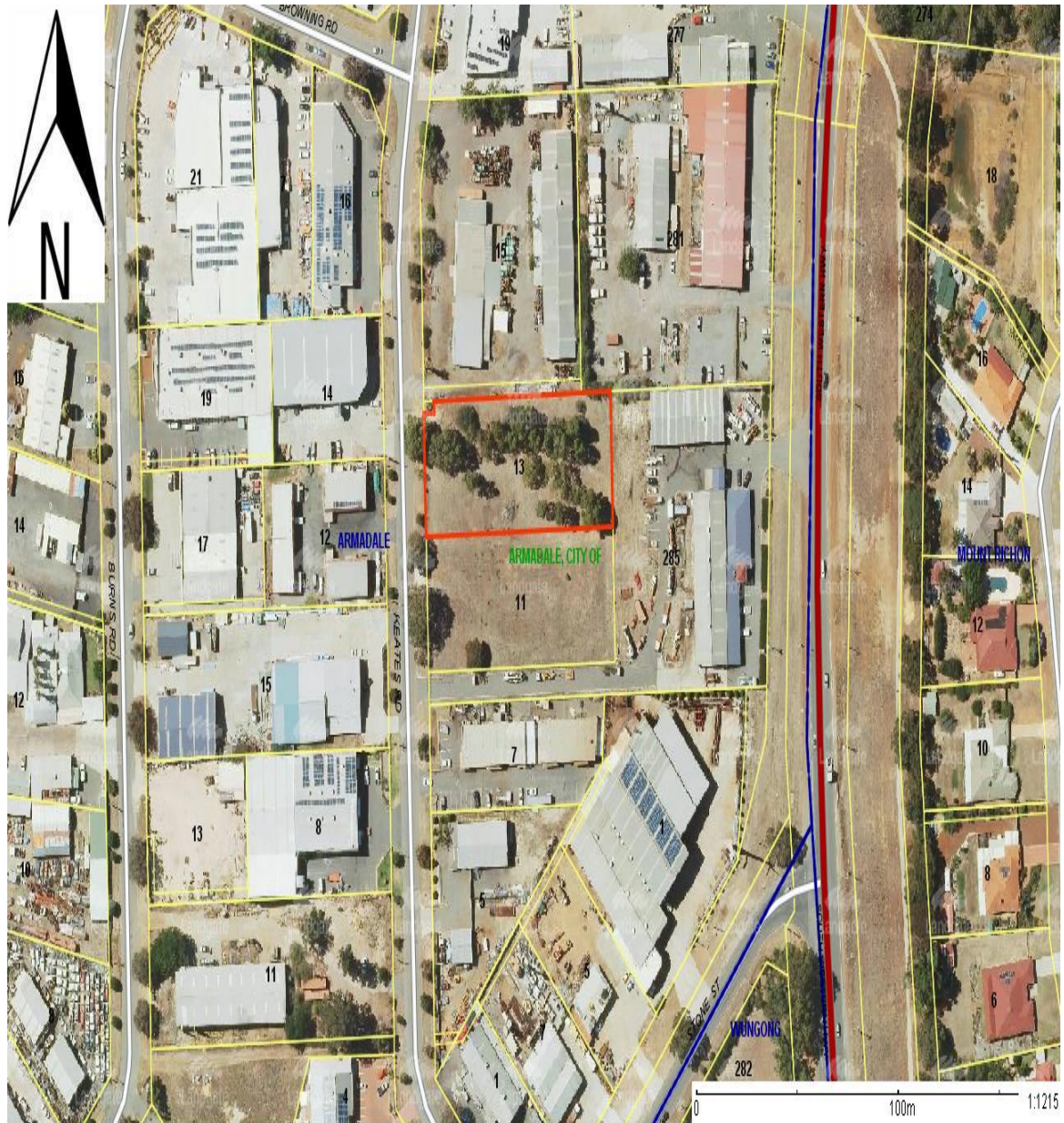




## Schedule 1: Maps

### Premises map

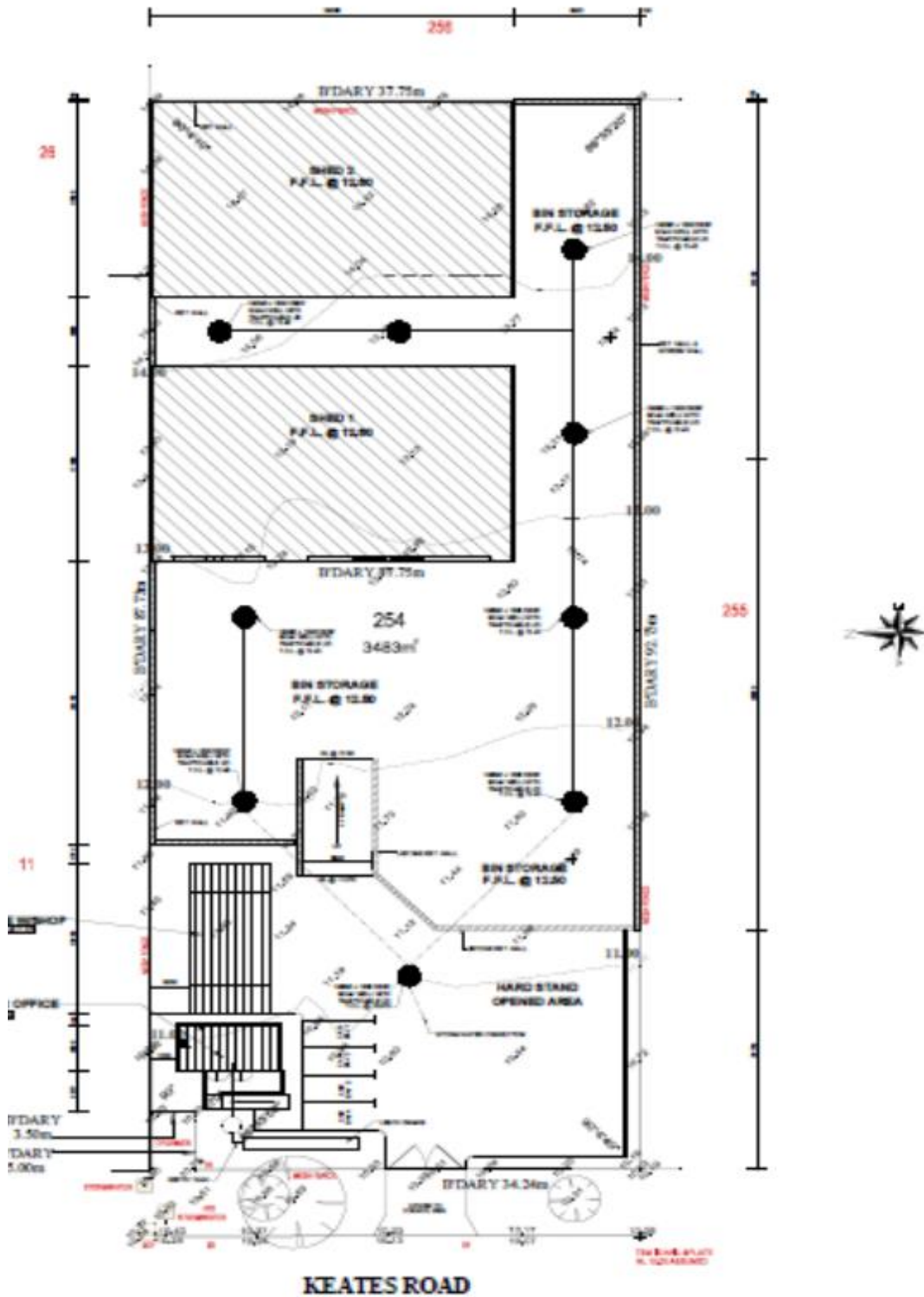
The Premises is shown in the map below. The red line depicts the Premises boundary.

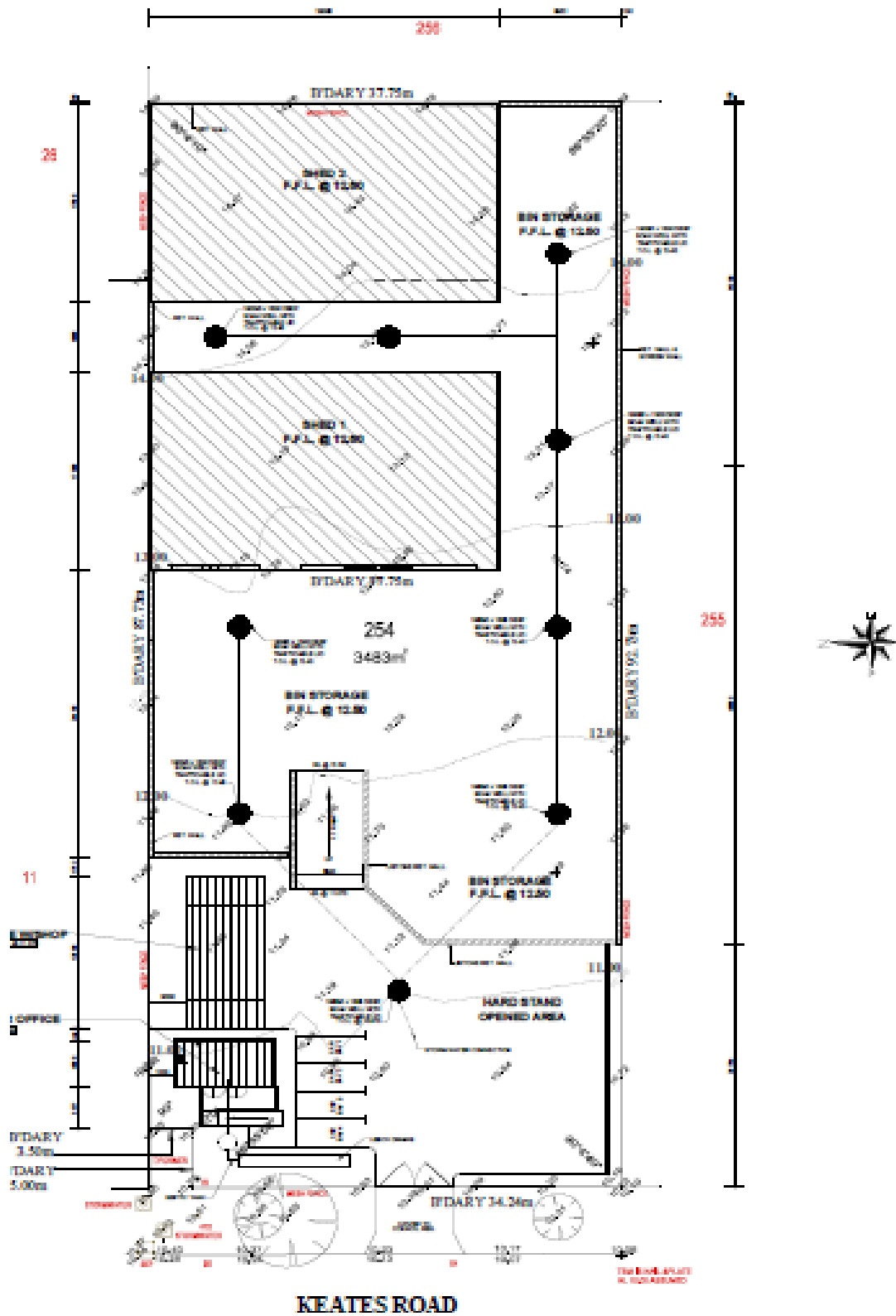


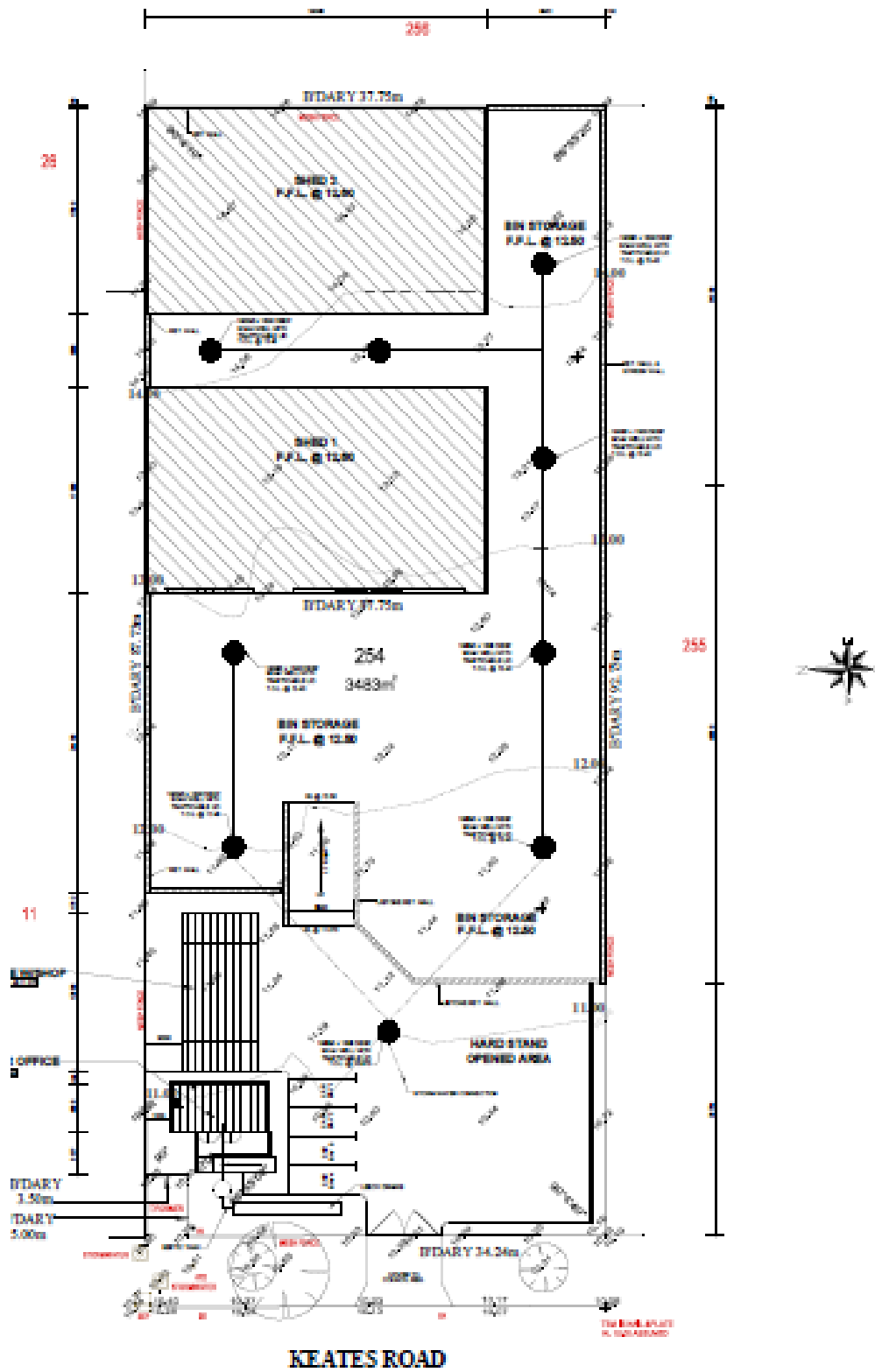


### Site Plan

The proposed site plan is shown below











# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:** Washington's Earth Moving Pty Ltd

**Works Approval:** W5985/2016/1

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**Registered office:** 40 Francais Road  
PICKERING BROOK WA 6076

**ACN:** 112 655 099

**Premises address:** Washington's Earth Moving  
13 Keates Road  
ARMADALE WA 6112  
Being Lot 254 on Plan 57226 as depicted in Schedule 1.

**Issue date:** Wednesday, 28 March 2018

**Commencement date:** Wednesday, 28 March 2018

**Expiry date:** Thursday, 19 December 2019

### **Decision**

Based on the assessment detailed in this document the Delegated Officer, has decided to issue a Works Approval. The Delegated Officer considers that in reaching this decision, all relevant considerations have been taken into account.

Decision Document prepared by:

Chris Slavin  
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 <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>
	12	30 000 tonnes per annual period
	13	20 000 tonnes per annual period
	62	50 000 tonnes per annual period
Application verified	Date: 05/09/2016	
Application fee paid	Date: 20/09/2016	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome	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 type="checkbox"/> No <input checked="" type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, eg Site is subject to SO <sub>2</sub> requirements of Kwinana EPP.		



## 3 Executive summary of proposal and assessment

### 1. Background

Washington's Earth Moving Pty Ltd (Washington's) has submitted a Works Approval application to construct and operate a crushing and screening facility. The facility will process laterite rock and construction and demolition (C&D) waste to produce reusable construction materials such as road aggregate and fill for reuse in civil construction and landscaping projects.

The materials intended to be received will include laterite spalls, gravel, sand topsoil and construction and demolition (C&D) waste. The material will be sourced and delivered to the facility from construction sites throughout the Perth Hills, which may include subdivisions, commercial and residential construction sites and roadworks. The application advises that only truck loads from authorised contractors will be allowed onsite and that no unauthorised contractors will be granted access to the facility.

### 2. Proposal

The processed recycling process is detailed below as stated in Washington's Works Approval application:

- *"The materials will be delivered to the facility in trucks and skip bins (C&D Waste) from the construction sites and deposited in the unloading area;*
- *Materials will then be taken into one of the enclosed sheds using a Case 521 front loader for screening using a Bost model 5000 mobile screening plant. Laterite materials will be stockpiled into rubble and sand. C&D materials will be stockpiled into clean brick and concrete (mixed waste) residual and sand;*
- *Concrete and clean brick feedstock will then be processed at the picking station where unwanted materials such as plastic, timber and cardboard is separated from the feedstock for disposal at an appropriately licensed facility;*
- *Feedstock will then be separated, wetted with water sprays and transported into one of the two sorting sheds. before crushing;*
- *Feedstock will then be fed through the Rubble Master model 80 crusher to produce the required construction material.*
- *Any remaining scrap metal in the C&D Waste will be removed by a electromagnet fitted to the conveyor belt. Crushed material can then be fed back into the crusher for further processing.*
- *The screening plant separates the crushed material into sand, drainage aggregate and roadbase;*
- *Laterite gravel and rock, clean bricks, and concrete will be crushed down between 30-75mm;*
- *The processed material will be removed from the sorting shed and placed in stockpiles for sale".*

The City of Armadale granted Washington's Development Approval (DA) for the Premises on 19 December 2017. A condition of the DA is the processing capacity is limited to a maximum of 50,000 tonnes per year. Washington's initially applied to crush and screen 60,000 tonnes of laterite rock (Category 12) and 40,000 tonnes of C&D waste per year (Category 13), as well as accept up 100,000 tonnes of C&D waste for sorting (Category 62), with suitable materials for crushing and screening accepted and unsuitable materials removed from the premises. As The DA restricts the processing capacity to 50,000 tonnes per year, the Department of Water and Environmental Regulation (DWER) will limit the crushing and screening of laterite rock and C&D waste to 25,000 tonnes per year respectively and restrict the acceptance and sorting of C&D waste to 50,000 tonnes per year. A nominal ratio of 30 000 tpa (Cat 12) to 20 000 tpa (Cat13) was agreed to by the applicants representative in March 2018. Actual processing limits are expected to be finalised in the future licence.



A transportable office block will be located onsite for administrative tasks and as a contact point for staff and customers. A Workshop will also be erected to service the facility's machinery. The existing site fencing will be maintained. Washington's do not envisage the need to erect additional fencing at the premises. Any fencing removed during the construction of the facility will either be reinstated or replaced by noise attenuating walls

### **3. Location in environmental setting**

The facility is located at 13 Keates Road Armadale within Lot 254 on Plan 57226. The facility will occupy the entire Lot. The area is zoned as 'General Industry' and within approximately 150m of an area zoned residential, within approximately 200m of an area zoned rural and within approximately 400m of a rural residence.

The nearest surface water body is a drainage canal located 220m north of the facility, A minor perennial watercourse is located 220m north of the facility. The watercourse is a stormwater drainage canal/ditch for the nearby premises. The facility is located within the Karri groundwater subarea.

Based on the information available the depth to groundwater is 30mbgl. Groundwater quality in the local aquifers has been affected by historic land uses such as intensive agricultural practices. The premises is not located within a known public drinking water source location.

The premises is located within the Armadale hills, which are formed of Granite, Laterite, Gravel and Gneiss with valley-fill deposits of clayey sandy silts and clayey gravely sands. There is currently no information available on the risk of acid sulphate soils within the premises.

In order to construct the two sorting sheds Washington's intend to clear approximately 10 Eucalyptus trees on the property. Washington's have advised, via an arborist, that the Eucalypt trees are non native to the area and are of eastern states origin. There are no nesting birds on the trees at the premises.

### **4. Risk Assessment and Decision**

The main potential emissions from the premises are asbestos fibres becoming airborne from the crushing and screening of C&D waste and noise from the operation of the crusher (Rubble Master Model 80, front end loader (Case 521) screening plant (Bost Model 5000) and associated tip trucks being tri axle semi-trailers carting material to the facility. Further details of emissions and regulatory controls for the facility are detailed within section 4 of the Decision Table. The risk matrix in section 6 and associated risk assessment categories have been updated from the initial draft version to adopt DWER's current risk assessment framework.





## 4 Decision table

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

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Land Use Planning (February 2017)*
- *Guidance Statement: Licence Duration (August 2016)*
- *Guidance Statement: Decision Making (November 2016)*
- *Guidance Statement: Risk Assessment (November 2016)*
- *Guidance Statement: Environmental Siting (November 2016)*
- 

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

<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L = Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>General conditions</b>	W1.2.1 - W1.2.2	<b>Construction</b> Condition 1.2.1 and 1.2.2 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.	Application supporting documentation



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		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 out in Table 1.2.2	
Premises operation	Licence	<p>No operation of the premises is to occur under the works approval during construction. Waste may only be received once the licence is granted.</p> <p><b>Operation – Asbestos Risk Management</b></p> <p><u>Emission Description</u>  <i>Emission:</i> Asbestos fibres from non-conforming waste brought onto the premises and from crushing activities on site.  <i>Impact:</i> Asbestos fibres can have severe health impacts including asbestosis and mesothelioma. The nearest residents are located approximately 175m east, and there are industrial premises located either side of the premises.  <i>Controls:</i> An asbestos management plan has been submitted with the works approval supporting documentation that complies with DWER’s asbestos guidelines. Controls include staff training to identify asbestos, inspecting all loads prior to and during unloading for suspect material, isolating and segregating suspected asbestos, keeping stockpiles and unloading areas damp, monitoring and product testing. Asbestos / ACM loads are removed from the premises within 48 hours. All crushing and screening operations will be conducted in one of two enclosed sorting sheds which will prevent the release of airborne asbestos fibres into the atmosphere.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p> <p>DWER’s <i>Guidance Statement: Regulatory Principles</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><u>Risk Assessment</u> Consequence: Severe Likelihood: Rare Risk Rating: High</p> <p><u>Regulatory Controls</u> Given the moderate risk rating for asbestos, a number of conditions will be specified in the licence that are in line with the DWER's Asbestos Guidelines and the proponents commitments detailed in 'Asbestos Management Plan for Crushing and Screening Facility at 12 Keates Road Armadale', August 2016.</p> <p><u>Residual Risk</u> Consequence: Severe Likelihood: Rare Risk Rating: High</p> <p><b>Operation - Stormwater Risk Management</b> <u>Emission Description</u> Emission: Stormwater contaminated with leachate generated from the storage of waste. Impact: Contaminated stormwater may enter surface waters in the area causing aquatic organism death or bioaccumulation of contaminants in the surrounding</p>	<p>DWER's Guidance Statement: Setting Conditions</p> <p>DWER's Guidance Statement: Licence and works approval process</p> <p>Asbestos Management Plan</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>ecosystems. The nearest surface water body is a drainage canal located 220m north of the premises. Depth to groundwater at the premises is 30mbgl.</p> <p><i>Controls:</i> Washington's will develop a network of soakwells across the premises that will act as sediment traps to prevent silt transport outside the premises boundary. The westernmost soakwell will have an overflow connected to the local stormwater drainage system to prevent the site from becoming inundated during a major rainfall event.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Slight <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> Given the predominant acceptance of inert waste types there is limited potential for stormwater to become contaminated. As the nearest surface water body is located 220m north and groundwater is 30mbgl and stormwater is directed to onsite soakwells, leachate migrating to surface water bodies is considered unlikely. The Delegated Officer considers discharges from the premises can be sufficiently regulated under the provisions of the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</p> <p><u>Residual Risk</u></p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Consequence:</i> Slight <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</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>	<p>DWER's <i>Guidance Statement: Regulatory Principles</i></p> <p>DWER's <i>Guidance Statement:</i></p>
<b>Fugitive emissions</b>		Please refer to Appendix A for DWER's assessment of fugitive emissions	
<b>Odour</b>	N/A	<p>Washington's will be restricted to accepting laterite rock materials and construction and demolition waste at the premises. In accordance with the document <i>Landfill Waste Classification and Waste Definitions 1996</i> (As amended December 2009) construction and demolition waste is defined as an Inert Waste Type 1. Inert Waste Type 1 is defined as being non-hazardous, non-biodegradable, odour is not expected to be produced from this waste stream.</p> <p>The Delgated Officer consider that any odour emissions can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i></p>	S49 of the <i>Environmental Protection Act 1986</i>
<b>Noise</b>	Licence	Please refer to Appendix A for DWER's assessment of Noise.	





DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Monitoring general	Licence	<b>Operation</b> Conditions relating to general monitoring may be placed on the licence.	
Monitoring of inputs and outputs	Licence	<b>Operation</b> A condition requiring Washington's to monitor material received at the premises and any material rejected or leaving the premises	
Information	W2.1.1 – 2.1.2	<p><b>Construction</b> The works approval includes conditions requiring the occupier to submit a compliance document once construction works have been completed and prior to any operations commencing. The compliance document shall contain certification that all works have been undertaken that all works have been undertaken in accordance with the works approval and is required to be authorised by a representative of the occupier. These conditions allow for verification that all works have been constructed as authorised and assessed through the works approval process and have been constructed to reduce the impact of emissions and discharges from the premises.</p> <p><b>Operation</b> Licence conditions are proposed to 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 to facilitate the analysis and investigation of trends and incidents.</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</li> </ul>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>DWER to review the occupier's environmental performance.</p> <ul style="list-style-type: none"><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 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.</li><li>• require the licensee to submit an AER. The AER is required to include the AACR and a summary of the complaints required under a licence condition. 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, records of non-conforming wastes; and</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>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L = Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Works Approval Duration</b>	W5985/2016/1	The proponent submitted a Development Approval application (DA) to the City of Armadale on 30 June 2016. The City of Armadale has outlined that the DA will only be approved once DWER has issued the proponent with a Works Approval. DWER intends to notify the proponent that it intends to grant the works approval subject to DA. Development Approval was granted to Washington's on 19 December 2017. The DA is granted for a period of 24 months, and as such DWER will grant the Works Approval for 24 Months from 19 December 2017.	Guidance Statement: Land Use Planning (February 2017)



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
26/09/2016	Application advertised in the West Australian	No comments received	N/A
26/09/2016	Application referred to interested parties listed.	No comments received	N/A
11/11/2016	Proponent sent a copy of draft instrument	Minor comments regarding construction certifications of Sheds 1 and 2. Minor grammatical comment in Decision document.	Changes made as requested by the Applicant



## 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. The nearest residents are located approximately 175m east, and there are industrial premises located either side of the premises.

*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.

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

- Install a timed reticulation system around the stockpile area; and
- Fit the Rubble Master Model 80 crusher and Bost Model 5000 screening plant with dust suppression systems.

#### 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. The nearest residents are located approximately 175m east, and there are industrial premises located either side of the premises.

*Controls:* Washington's has proposed the following dust control measures during operation:



- Sealing of internal hardstands and access roads with a trafficable polymer dust control sealant, specifically designed for dust suppression;
- Loading and unloading of materials shall be halted during adverse weather conditions where winds are blowing towards the nearby sensitive receptors to the east and south
- Restricting traffic to the most direct route on the site and prohibiting traffic on non active areas;
- Undertaking scheduled and unscheduled maintenance of unsealed areas to ensure dust control sealant remains effective;
- Proactive monitoring of visible dust crossing the site boundary and ensuring dust is contained within the premises boundary;
- Dust emissions shall be reported to the Site Supervisor by plant operators.
- Routine maintenance of dust suppression equipment as per manufactures recommendations; and
- Wetting down of trafficable areas as required to minimize dust.

#### Risk Assessment

*Consequence:* Moderate

*Likelihood:* Possible

*Risk Rating:* Medium

#### Regulatory Controls

Given the moderate risk dust may have on the premises, The Delegated Officer proposes the following conditions on the licence:

- Provision for all crushing and screening activities to be conducted in Sheds 1 and 2;
- Provision for the screen and crusher to be operated with reticulated sprinklers;
- Installation of timed reticulation systems around stockpile areas to ensure stockpiles remain in a damp state;
- 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.
- 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.

#### Residual Risk

*Consequence:* Moderate

*Likelihood:* Unlikely

*Risk Rating:* Medium

### **NOISE RISK ASSESSMENT**



## **Construction**

### Emission Description

*Emission:* Noise generated by construction works including the construction of the noise attenuation bunds and Sheds 1 and 2.

*Impact:* Noise can cause a nuisance for people on nearby properties. The nearest residents are located approximately 175m east, and there are industrial premises located either side of the premises.

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

### Risk Assessment

*Consequence:* Moderate

*Likelihood:* Possible

*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. The Delegated Officer considers that the works proposed at the works approval stage meet the definition of construction work in the Noise Regulations.

Condition 1.2.2 required Washington's to construct a noise attenuation barrier along the northern and eastern boundary of the premises.

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 7pm Monday to Saturday as the daytime hours in the Noise Regulations.

### Residual Risk

*Consequence:* Moderate

*Likelihood:* Unlikely

*Risk Rating:* Medium

## **Operation**

### Emission Description

*Emission:* Noise emissions from crushing and screening activities (including the use of a single front end loader) heavy machinery operation and vehicle movements on site. Activities on site may contribute to cumulative impacts from proposed operations on neighbouring industrial properties. Noise can cause a nuisance for people on nearby properties. The nearest residents are located approximately 175m east, and there are industrial premises located either side of the premises.

*Impact:* Noise can cause a nuisance for people on nearby properties. The nearest residents are located approximately 175m east, and there are industrial premises located either side of the premises. Washington's has proposed the following noise controls:



- Sheds 1 and 2 will be constructed so that their open (working) sides face each other to contain the noise from the screening and crushing plants operation;
- Sheds 1 and 2 will be constructed with concrete walls along the north, east and southern sides;
- The northern walls of Sheds 1 and 2 will be joined to make a continuous wall along the northern boundary;
- A noise attenuation barrier 3m high will be installed along the remaining eastern boundary of the retaining wall;
- A noise attenuation barrier 3m high will be installed along the remaining northern boundary of the premises;
- A complaints register will be maintained at the premises to record any complaints received. The source of any excessive noise will be identified to address the complaint and work practices modified or rescheduled to reduce or eliminate the risk of such events reoccurring.
- All mobile plant equipment at the premises will be regularly maintained;
- Speed limits on not more than 10km/h will be enforced on all internal traffic;
- Only one front end loader (Case 521) will be operational at any one time at the premises;
- The screening plant (Bost Model 5000), crusher (Rubble Master model 80) and delivery trucks will only operate between 7am and 4pm;
- The screening plant (Bost Model 5000) and crusher (Rubble Master model 80) will not be operational at the same time, as there will only be one front end loader operating at the premises.

Washington's engaged Herring Storer Acoustics to undertake noise modelling to assess the impact of the proposed activities. Noise modelling was used to determine the suitable building design, building orientation and the design of the noise barriers required to reduce noise from the crushing and screening activities. Washington's then developed a Noise Management Plan based on the findings of the modelling.

The proposal relies on the surrounding industrial buildings, stockpiles of raw and processed materials within the premises, concrete walls on the fully enclosed sheds and the South Western Highway to render the operation noise compliant.

The noise modelling completed by Herring Storer was considered by DWER's Noise Regulation Branch. Their advice is summarised below:

- The Noise Model is based on sound power levels for equipment that have not been referenced or justified. The Noise Model did not include sound power levels which are:
  - representative of the specific equipment intended to be used at the premises; and
  - representative of the equipment under maximum load, particularly for the crushing equipment;
- The Noise Model and the Noise Management Plan have not addressed noise from reversing alarms (trucks and onsite equipment) and equipment start up alarms; and
- The locations identified as I2 and I4 in the Noise Model are in the area zoned for Industrial Business, and the Assigned Outdoor Noise Level, L10, for premises at these locations may be 60dBA not 65dBA as stated in the noise model.

Washington's submitted a revised noise impact assessment to DWER on 20 October 2016 addressing the concerns listed above. DWER's Noise Regulation Branch reviewed the amended



noise impact assessment and notes that Washington's would likely be able to comply with the Noise Regulations as the concerns raised by DWER were addressed in the revised noise impact assessment.

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 construct a 3m high noise attenuation barrier installed along the northern and eastern boundary of the premises.

Condition 1.2.4 has been added to the Works Approval to require the verification of the noise modelling submitted, within 6 months under full operation. The Delegated Officer considers the condition necessary due to the close proximity of sensitive residential receptors to ensure the noise modelling is consistent with what noise is being emitted from the premises.

The Delegated Officer proposes the following Licence conditions:

- prohibit the operation of screening and crushing equipment prior to 7am;
- prohibit the use of equipment with tonal reversing alarms before 7am;
- limit the equipment that can be operated at one time to 1 x front end loader, 1 x crusher and 2 1x Screen to ensure risk of exceedances of assigned noise levels is low;
- require the noise bunds to be maintained to a height of 3m along the length of the northern and eastern boundary;
- limit minimum stockpile heights (as these have been factored in as noise attenuation in the modelling);
- to require noise monitoring 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:* Possible

*Risk Rating:* Medium