Decision Report

Application for Licence

Division 3, Part V *Environmental Protection Act 1986*

Licence Number	L9212/2019/1
Licence Holder	Washington's Earthmoving Pty Ltd
ACN	112 655 099
File Number	DER2019/000366
Premises	Recycling Solutions 13 Keates Road, ARMADALE WA 6112 Being Lot 254 on Deposited Plan 57226
Date of Report	14/08/2019

1. Definitions

In this Decision Report, the terms in the table below have the meanings defined.

Term	Definition
ACN	Australian Company Number
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
Decision Report	refers to this document.
Delegated Officer	an officer under section 20 of the EP Act.
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
Licence Holder	Washington's Earthmoving Pty Ltd
Noise Regulations	*Environmental Protection (Noise) Regulations 1997* (WA)
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report
Risk Event	As described in *Guidance Statement: Risk Assessment*

2. Overview of Premises

2.1 Classification of premises

Prescribed Premises Categories

Classification of Premises	Description	Approved Premises production or design capacity or throughput
Category 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 per annual period (combined total with Category 13 production)
Category 13	Crushing of building material: premises on which waste building or demolition material (for example, bricks, stones or concrete) is crushed or cleaned.	50,000 tonnes per annual period (combined total with Category 12 production)
Category 62	Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or re-use.	50,000 tonnes per annual period

2.2 Description of proposed activity

Washington's Earth Moving Pty Ltd (Licence Holder) proposes to operate a crushing and screening facility, constructed under Works Approval W5985/2016/1. 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.

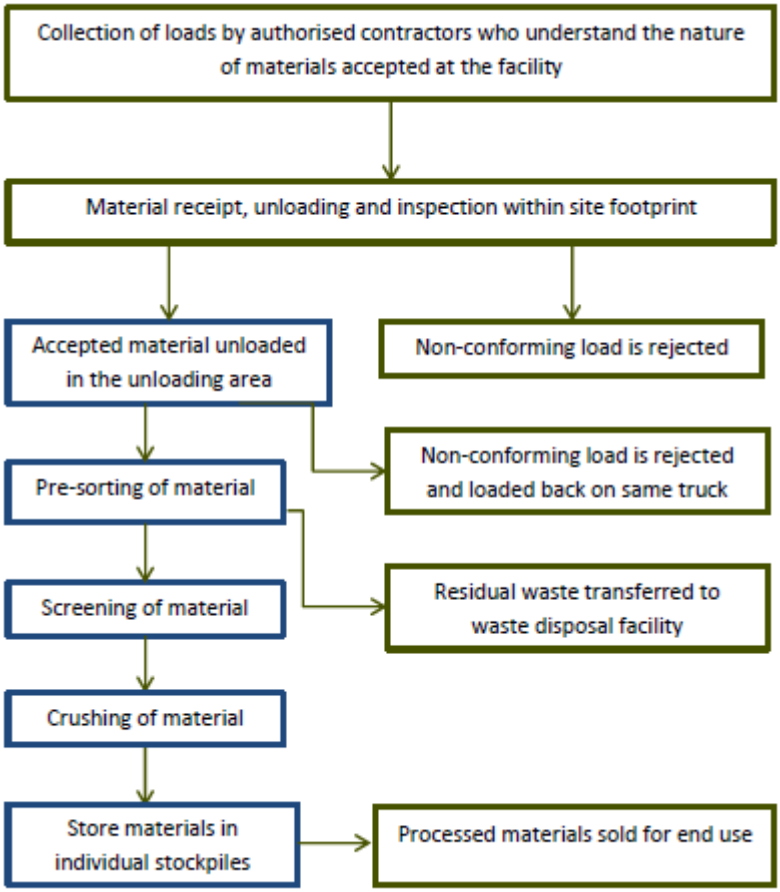
Waste materials accepted to the premises will be deposited in the designated unloading area, with laterite materials stockpiled into rubble and sand, while C&D materials stockpiled into clean brick and concrete, residual and sand. The waste is then taken into one of two sheds using a Case 521 front end loader for processing.

Feedstock is then fed through the Rubble Master RM80 crusher to produce the required construction material. The Bost Model 5000 mobile screening plant screening plant then separates the crushed material into sand, drainage aggregate and roadbase, with the processed material removed from the sorting shed and placed in stockpiles for sale.

Figure 1 outlines the material process flow through the premises.

Figure 1: Process flow chart

Image provided as part of works approval supporting documentation



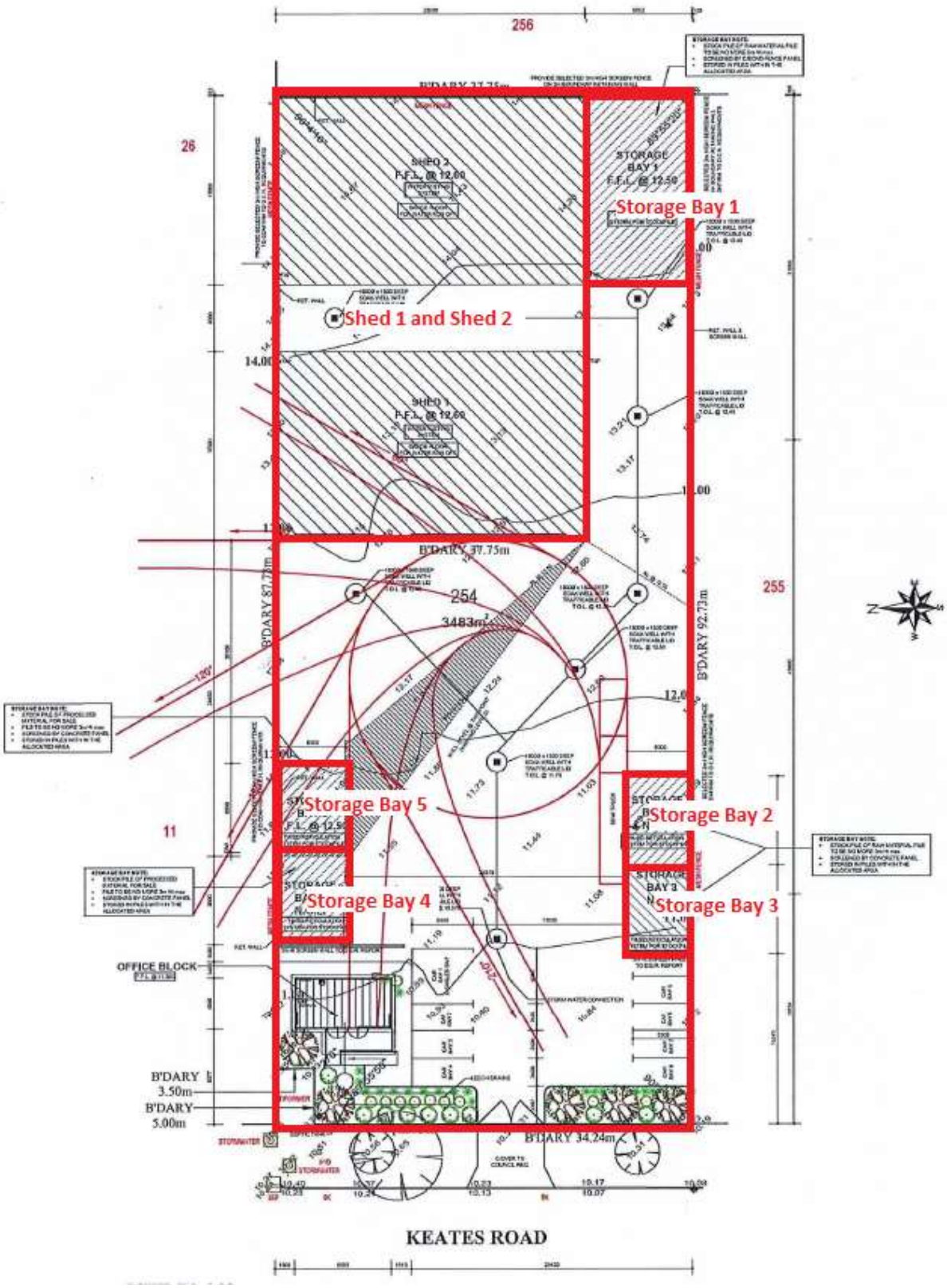
The infrastructure and equipment used at the premises are outlined in the table below and the site layout is shown in Figure 2.

Prescribed infrastructure

	Infrastructure and Equipment	**Site Plan Reference (Figure 1)**
	Prescribed Activities	
1	Crusher (Rubble Master Model 80 or equivalent)	Shed 1 and Shed 2
2	Screening Plant (Bost Model 5000 or equivalent)	Shed 1 and Shed 2
3	Shed 1 and Shed 2	Shed 1 and Shed 2
4	Reticulation systems and hoses	N/A
5	Front End Loader (Case 521 or equivalent)	N/A
6	5 x Storage Bays	Storage Bays 1-5
	Other Activities/ Infrastructure	
1	1x Administration building	Admin

Figure 2: Site Layout Plan

Image provided as part of works approval supporting documentation



3. Legislative context and other approvals

The Applicant has obtained local government planning approval in accordance with the City of Armadale Town Planning Scheme No. 4. A summary of the planning approval is outlined in the table below.

Legislation	Number	Approval
Planning and Development Act 2005	Development Application No: 10.2016.240.1, issued 19 December 2017	The City of Armadale granted the Licence Holder's Development Approval (DA) for the Premises (crushing and screening facility) on 19 December 2017.

4. Emission sources, pathways and receptors

4.1 Emissions

The potential for emissions to impact on sensitive receptors has been assessed in accordance with the Department's Risk Framework. The key emissions considered in this report are **dust,** including **airborne asbestos,** and **noise** from unloading, crushing and screening activities.

The Licence Holder has proposed measures to assist in controlling these emissions, where necessary. The control measures have been considered when undertaking the risk assessment detailed in section 5.

4.2 Receptors

Risk is assessed as a combination of emission sources, the proximity and sensitivity of receptors to those emission sources and any pathways that can allow the emission to reach and potentially harm the receptor. Figure 3 and the table below provides a summary of human and environmental receptors in proximity to the premises and the risk assessment in Section 5 considers these receptors in the context of emissions and potential pathways.

Receptor	Distance from Prescribed Premises
Human receptors	
Residential	150m to the east of the premises boundary
Environmental receptors	
Insignificant tributary of Canning River	220m to the north of the premises boundary
Minor tributary of Canning River	640m to the south of the premises boundary
Groundwater (Karri groundwater subarea)	30m below the surface
Bush Forever Site 264	570m to the south of the premises boundary

Figure 2: Distance to sensitive receptors

Figure 3: Distance to sensitive receptors

4.3 Pathways

As dust and noise are considered potential emissions, the prevailing wind direction has been considered. Using information available on the Bureau of Meteorology's website, the closest available weather station for climatic data is Gosnells (No. 009106). Based on the climate data for the Gosnells station, the prevailing wind direction is predominantly easterly during summer months and predominantly westerly during the cooler months.

5. Risk assessment

Risk ratings have been assessed for each key emission source and take into account potential source-pathway-receptor linkages. The mitigation measures and controls proposed by the Applicant have been considered in determining the risk rating.

5.1 Risk assessment

Risk Event				Consequence rating*	Likelihood rating*	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	**Potential emissions**	**Potential receptors, pathway and impact**	**Applicant controls**					
Operation of crushing/screening equipment, processing of stockpiles of waste and operation of the sorting, unloading and loading of waste material	Dust	Air/ windborne pathway causing impacts to health and amenity of closest human receptors (nearest residents are located 175m east, with industrial premises located adjacent to the premises)	- Crushing and screening activities to occur within Sheds 1 and 2. - The crushing plant is fitted with spray nozzles within the hopper to dampen material prior to crushing activities and at the end of the discharge belt. - The screening plant is fitted with spray nozzles and at the end of the discharge belt. - Sprinklers used for stockpile dust suppression. - 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.	Moderate	Possible	Medium	- The Delegated Officer considers that, given the Applicant's controls and the proximity to residents, mid-level impacts to amenity to these receptors could occur at some time at a local scale. - The Delegated Officer considers that the Medium Risk Event Rating is acceptable, subject to regulatory controls.	**Licence Condition 9**: Requires all crushing and screening activities to be undertaken within Sheds 1 and/or 2, with dust suppression systems installed and operated on crushing and screening infrastructure. Dust suppression systems are specified for use on access ways, stockpiles and the tipping of loads. Stockpiles are located within 3 sided bunkers with height restrictions on the stockpile, consistent with the Development Approval. **Licence Condition 17**: Requires that waste and product stockpiles are retained within storage bunkers. **Licence Condition 18**: Specifies that no visible dust generated from primary activities cross the boundary of the premises. **Licence Condition 19**: Requires the use of dust suppression systems to maintain stockpiles and access roads in a damp state. **Licence Condition 20**: Specifies that products are wetted down prior to loading. **Licence Condition 21**: Limits vehicle speeds to 10km/h within

Risk Event				Consequence rating*	Likelihood rating*	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	**Potential emissions**	**Potential receptors, pathway and impact**	**Applicant controls**					
			- 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. - Wetting down of trafficable areas as required to minimise dust.					the premises. **Licence Condition 27 and 28**: Requires the documenting of wastes accepted and rejected from the premises. **Licence Condition 33**: Requires that all complaints regarding alleged emissions are documented and investigated.
Release of asbestos fibres from non-conforming waste accepted to the premises through unloading and crushing activities.	Airborne asbestos fibres	Air/ windborne pathway causing impacts to health and amenity of closest human receptors (nearest residents are located 175m east, with industrial premises located adjacent to the premises)	- The Licence Holder will operate in accordance with their Asbestos Management Plan, which complies with DWER's asbestos guidelines. - Proposed staff training to identify asbestos. - Inspection of all loads prior to and during unloading for suspect material. - Isolating and segregating suspected asbestos. - Asbestos / ACM loads to be removed from the premises within 48 hours - Keeping stockpiles and unloading areas damp. - Analysis of product for asbestos. - All crushing and screening operations will be conducted in one of two enclosed sorting	Severe	Rare	High	- Although the risk of asbestos being present on site is low and the likelihood that asbestos fibres will impact on human health is rare, due to the severe health impacts that could occur from this emission, the overall risk rating remains high. - The Delegated Officer considers that the High Risk Event Rating is acceptable, subject to multiple regulatory controls. - Conditions will be specified in the licence that are in accordance with DWER's *Asbestos Guidelines* and the Applicant's commitments detailed in '*Asbestos Management Plan for Crushing and Screening Facility at 12 Keates Road Armadale', August 2016*. - The Development Approval	**Licence Condition 2**: Limits the acceptance of waste to clean fill and Inert Waste Type 1 **Licence Condition 3**: Specifies the inspection of waste upon arrival to assess compliance with Condition 2 **Licence Condition 4**: Specifies the requirement to remove unauthorised waste from the premises. **Licence Condition 5**: Provides requirements for acceptance regarding asbestos declaration **Licence Condition 6**: Requires signage specifying that asbestos is not accepted at the premises. **Licence Conditions 7**: Specifies the classification of loads accepted to the premises through visual inspection. **Licence Conditions 8**: Specifies the procedure for rejected waste **Licence Conditions 10 to 15**: These conditions specify the

Risk Event				Consequence rating*	Likelihood rating*	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	**Potential emissions**	**Potential receptors, pathway and impact**	**Applicant controls**					
			sheds which will prevent the release of airborne asbestos fibres into the atmosphere				requires that material to be accepted to site shall not contain visible asbestos or Asbestos Containing Materials (ACM), and that the concentration of asbestos in any form within processed material shall not exceed 0.0001% w/w.	procedures for the inspection of loads during unloading, storage, sorting and crushing/screening processes. **Licence Condition 16**: Specifies the separation of stockpiles for waste, products tested for ACM and products awaiting testing for ACM. **Licence Conditions 22 to 26**: These conditions specify the asbestos testing procedures to be undertaken for products.
Crushing and screening activities (including the use of a single front end loader), heavy machinery operation and vehicle movements on site	Noise	Air/ windborne pathway causing impacts to health and amenity of closest human receptors (nearest residents are located 175m east, with industrial premises located adjacent to the premises)	- Sheds 1 and 2 are 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 are constructed with concrete walls along the north, east and southern sides. - The northern walls of Sheds 1 and 2 are joined to make a continuous wall along the northern boundary. - A 3m high noise attenuation barrier 3m high is installed along the remaining eastern and northern boundaries of the retaining wall. - A complaints register will be maintained at the premises to record any complaints received. The	Moderate	Possible	Medium	- The Applicant 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. The Applicant then developed a Noise Management Plan based on the findings of the modelling. - A revised noise impact assessment submitted to DWER on 20 October 2016 was reviewed by DWER's Noise Regulation Branch, noting that the Applicant would likely be able to comply with the Noise Regulations. - Condition 1.2.4 of Works	**Licence Condition 9:** Specifies that the crusher and screening plant cannot operate at the same time, and limits the hours of operation. **Licence Condition 29**: Restricts the hours of operation for the premises. **Licence Condition 30**: Restricts the hours of operation for vehicle reversing alarms. **Licence Condition 31**: Specifies the undertaking of a noise validation study consistent with Condition 1.2.4 of Works Approval W5985/2016/1. **Licence Condition 33**: Requires that all complaints regarding alleged emissions are documented and investigated. ***Environmental Protection (Noise) Regulations 1997***: Operations must occur in accordance with these regulations

Risk Event				Consequence rating*	Likelihood rating*	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	**Potential emissions**	**Potential receptors, pathway and impact**	**Applicant controls**					
			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 of 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 weekdays between 7am and 4pm. - The screening plant and crusher will not be operational at the same time.				Approval W5985/2016/1 requires the verification of the noise modelling submitted to DWER, within 6 months of the completion of construction under full operating conditions. The Licence will contain a condition consistent with the Works Approval condition. - The Delegated Officer considers that the Medium Risk Event Rating is acceptable, subject to regulatory controls.	
Stormwater contaminated with leachate generated from the storage of waste.	Leachate	Seepage through soil, transport through groundwater and runoff causing contamination of land (soil)	- A network of soakwells is installed across the premises that will act as sediment traps to prevent silt transport outside the premises boundary. - The westernmost soakwell has overflow connected to the local	Slight	Unlikely	Low	- The nearest surface water body is a drainage canal located 220m north of the premises. - Depth to groundwater at the premises is 30mbgl. Given the predominant acceptance of inert waste types, there is limited	***Environmental Protection (Unauthorised Discharges) Regulations 2004***: Stormwater discharges must occur in accordance with these regulations

Risk Event				Consequence rating*	Likelihood rating*	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	**Potential emissions**	**Potential receptors, pathway and impact**	**Applicant controls**					
		and bioaccumulation of contaminants in the surrounding ecosystems	stormwater drainage system to prevent the site from becoming inundated during a major rainfall event. - The premises is concrete hardstand expect for the stockpile areas, which comprise a compacted 200mm laterite gravel layer. - Premises contoured to direct stormwater to soakwells. - Plant will be refuelled from a mobile tanker and contained within mobile infrastructure supplied by the refueling contractor				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 that the Low Risk Event Rating is acceptable, and discharges from the premises can be sufficiently regulated under the provisions of the *Environmental Protection (Unauthorised Discharges) Regulations 2004*.	

6. Consultation

Method	Comments received	DWER response
Application advertised on DWER website	No comments received	N/A
Direct interest stakeholders notified	On 29 July 2019, the City of Armadale advised DWER that: *- The City's records indicate that the applicant has complied with the relevant conditions of the local development approval that are required to be addressed prior to the submission of a Building Permit and works have now progressed. There are a number of development approval conditions the applicant must comply with prior to the commencement of works.* *- The City has no objection to DWER determining the licence application.* *- The applicant is yet to submit a finalised stormwater disposal (management) plan, so issues (relating to Condition 22 of the Development Approval) can potentially be dealt with through that process.*	On 30 July 2019, DWER notified the Applicant of the requirements relating to Condition 22 of the Development Approval.
Applicant notified of draft	Correspondence was received from the Applicant on 10 August 2019, advising that: *- The comment period wished to be waived* *- Dust suppression systems were operational on the Bost Model 5000 screening plant, located within Sheds 1 and 2, with photographic evidence provided.*	Condition 9 of the Licence was amended to prohibit operation of the Crusher until photographic evidence of installation of the Crusher and fully functional associated pollution control equipment has been submitted to the CEO. The submitted photographic evidence for the screening plant excluded a similar regulatory requirement within Condition 9 for the screening plant.

7. Conclusion

This assessment of the risks of activities on the premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this decision report (summarised in Appendix 1).

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the approval under the EP Act.

Stephen Checker

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Steve Checker

MANAGER WASTE INDUSTRIES

REGULATORY SERVICES

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

Appendix 1: Key documents

8.	9. Document title	10. In text ref	11. Availability
1	Works Approval W5985/2016/1 – Washington's Earth Moving	W5985/2016/1	accessed at www.dwer.wa.gov.au
2	Works Approval for a Screening and Crushing Facility at 13 Keates Road, Armadale. Bowman and Associates, August 2016	Works Approval Supporting Documents	DWER records (A1150988)
3	Licence Application – Washington's Earthmoving Pty Ltd	Licence application	DWER records (A1804567)
4	DER, July 2015. *Guidance Statement: Regulatory Principles.* Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
5	DER, October 2015. *Guidance Statement: Setting Conditions.* Department of Environment Regulation, Perth.	DER 2015a	
6	DER, February 2017. *Guidance Statement: Risk Assessments*. Department of Environment Regulation, Perth.	DER 2017a	
7	DER, February 2017. *Guidance Statement: Decision Making*. Department of Environment Regulation, Perth.	DER 2017b	
8	DWER, June 2019. *Guideline: Industry Regulation Guide to Licensing.* Department of Water and Environmental Regulation, Perth.	DWER 2019a	

Schedule 1: Maps

Site Layout Map

The Premises is shown in the map below