Decision Report

Application for Works Approval

Division 3, Part V *Environmental Protection Act 1986*

Works Approval Number	W6156/2018/1
Applicant	Brajkovich Demolition and Salvage (WA) Pty Ltd
ACN	142 956 296
File Number	DER2018/000324-1
Premises	10 Bonner Drive MALAGA WA 6090 Being Lot 25 on Plan 44549
Date of Report	3 October 2018

1. Overview of premises

Classification of premises

Classification of Premises	Description	Approved Premises production or design capacity or throughput
Category 13	Crushing of building material: premises on which waste building or demolition material (for example, bricks, stones or concrete) is crushed or cleaned.	20,000 tpa
Category 62	Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or re-use.	

Description of proposed activity

The Applicant has demolished a building which was previously located on the Premises. The Applicant proposes to undertake onsite crushing of the construction and demolition waste from the building demolition project, and store the processed waste pending onsite re-use.

The crushing is anticipated to take no more than 10 weeks and consists of processing approximately 20,000 tonnes of waste. A Due Diligence Report was prepared by Aurora dated 13 July 2017 which concluded a low risk of the source material containing hazardous materials including asbestos.

In addition, all waste is proposed to be visually inspected prior to crushing and if asbestos is identified, it will be managed as specified in Section 5 below and removed offsite.

The land is owned by Aigle Royal Superannuation Pty Ltd (Land Owner) and the Applicant has a contract with the Land Owner to undertake the demolition works and processing of demolition waste at the Premises.

The Applicant proposes to store the processed waste onsite for up to one year at which time the Land Owner will utilise the waste onsite for future developments.

The key onsite infrastructure is detailed in the table below and an overview of the Premises layout is depicted in Figure 1.

	Infrastructure and Equipment	Site Layout Plan Reference
1	Kleeman Jaw Crusher	Located within the Operational Area shown in Figure 1
2	McCloskey Impact Crusher	
3	McCloskey Screener – S130	
4	Noise bunds constructed from unprocessed C&D waste	As per location on Figure 1
5	Sea containers (for noise mitigation)	
6	Abstraction bores x 2	
7	CAT 325CL Excavator	N/A
8	Komatsu 430-6 Wheel Loader	N/A

Figure 1: Site Layout Plan

2. Environmental siting

The Premises is situated in the City of Swan within an area zoned General Industrial under the City's *Local Planning Scheme No. 17*. The Premises is surrounded by commercial and light industrial properties.

Residential and sensitive receptors and distance from activity boundary

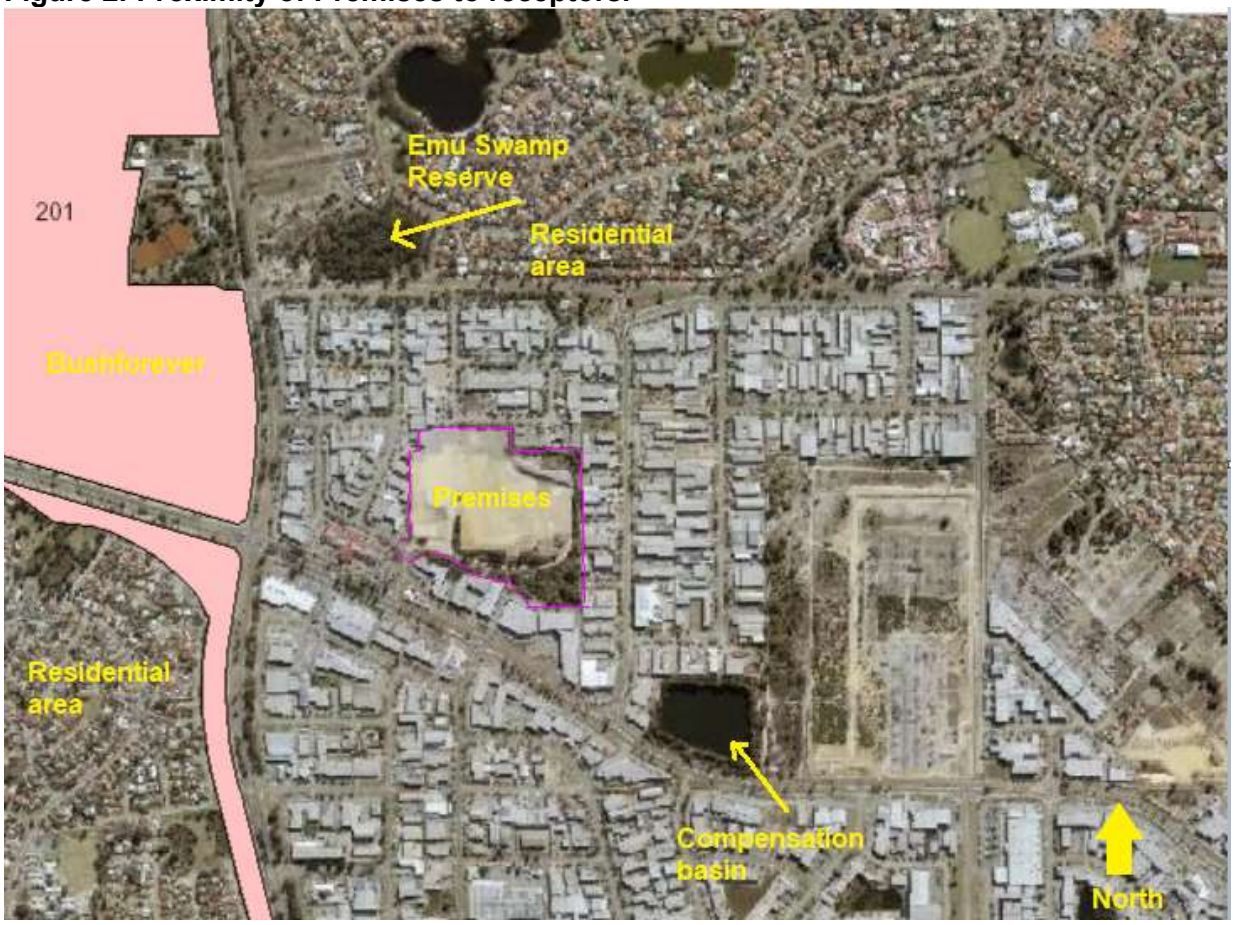
Residential and sensitive premises	Distance from Prescribed Premises
Commercial/light industrial receptors	Immediately adjacent to and surrounding premises boundary. Approximately 33m from prescribed activities.
Markets	Approximately 340m west of prescribed activities.
Residential	Approximately 460m north and 715m east, south-east of prescribed activities.

Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Groundwater (as identified using the Department's online Perth Groundwater Map) Considered to have a beneficial use as a fresh water supply for drinking and domestic use Within a Priority 3 Public Drinking Water Source Area (PDWSA) Moderate to low risk of Acid Sulfate	Ranges between 6 to 12m bgl (maximum 3m AHD variation). Two abstraction bores are located within Lot 10, situated approximately 63m south and 190m east of the prescribed activities. The nearest offsite abstraction bores are located approximately 395m north, north-east from the prescribed activities. The inferred regional groundwater flow is north to south.
Bushforever area	Approximately 590m west of the prescribed activities
Emu Swamp Reserve	Approximately 550m north-west of prescribed activities
Compensation basin	Approximately 400m south-east of prescribed activities

Figure 2 below depicts the location of the Premises in proximity to the listed receptors.

Figure 2: Proximity of Premises to receptors.



Using data from the Bureau of Meteorology's Perth Metro station (no. 009225), the prevailing wind directions are east and north-easterly in the morning changing to south-westerly in the afternoon.

The Department's online Perth Groundwater mapping software indicates that the surface geology is predominantly Bassendean Sand which is conducive to a permeable soil profile.

3. Legislative context and other approvals

Relevant approvals

Legislation	Number	Approval
Planning and Development Act 2005	DA-816/2017	Demolition approval granted by the City of Swan on 30/11/2017
Rights in Water and Irrigation Act 1914	156202	Groundwater Licence granted until 13/11/2027 for the abstraction of up to 27,000 kL

4. Risk Criteria

During the assessment the risk criteria in the tables below will be applied to determine a risk rating.

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

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the risk / opportunity occurring.		**The following criteria has been used to determine the consequences of a risk occurring:**		
			Environment	**Public Health* and Amenity (such as air and water quality, noise, and odour)**
Almost Certain	The risk event is expected to occur in most circumstances	Severe	• **on-site impacts**: catastrophic • **off-site impacts local scale**: high level or above • **off-site impacts wider scale:** mid-level or above • Mid to long term or permanent impact to an area of high conservation value or special significance^ • Specific Consequence Criteria (for environment) are significantly exceeded	• Loss of life • **Adverse health effects:** high level or ongoing medical treatment • Specific Consequence Criteria (for public health) are significantly exceeded • **Local scale impacts:** permanent loss of amenity
Likely	The risk event will probably occur in most circumstances	Major	• **on-site impacts**: high level • **off-site impacts local scale**: mid-level • **off-site impacts wider scale**: low level • Short term impact to an area of high conservation value or special significance^ • Specific Consequence Criteria (for environment) are exceeded	• **Adverse health effects:** mid-level or frequent medical treatment • Specific Consequence Criteria (for public health) are exceeded • **Local scale impacts**: high level impact to amenity
Possible	The risk event could occur at some time	Moderate	• **on-site impacts**: mid-level • **off-site impacts local scale**: low level • **off-site impacts wider scale**: minimal • Specific Consequence Criteria (for environment) are at risk of not being met	• **Adverse health effects:** low level or occasional medical treatment • Specific Consequence Criteria (for public health) are at risk of not being met • **Local scale impacts:** mid-level impact to amenity
Unlikely	The risk event will probably not occur in most circumstances	Minor	• **on-site impacts**: low level • **off-site impacts local scale**: minimal • **off-site impacts wider scale**: not detectable • Specific Consequence Criteria (for environment) likely to be met	• Specific Consequence Criteria (for public health) are likely to be met • **Local scale impacts:** low level impact to amenity
Rare	The risk event may only occur in exceptional circumstances	Slight	• **on-site impact**: minimal • Specific Consequence Criteria (for environment) met	• **Local scale**: minimal to amenity • Specific Consequence Criteria (for public health) met

^ Determination of areas of high conservation value or special significance should be informed by the *Guidance Statement: Environmental Siting.*

* In applying public health criteria, DWER may have regard to the Department of Health's, *Health Risk Assessment (Scoping) Guidelines* **"on-site"** means within the prescribed premises boundary.

5. Risk assessment

Risk assessment – construction

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	**Potential emissions**	**Potential receptors**	**Potential pathway & impact**	**Applicant controls**					
Placement of crushing and screening equipment onsite including vehicle movements Construction of noise bunds using onsite uncrushed construction and demolition (C&D) waste	Dust: The placement of equipment onsite does not generate any point source dust emissions and only fugitive dust liftoff may occur during placement. Positioning of C&D waste to create the noise bunds may result in generation of dust.	Commercial and light industries located adjacent to Premises boundary	Migration of emission through air/wind causing impacts to health and amenity	The Premises predominantly consists of a hardstand area which assists in reducing dust liftoff from vehicle movements. The Applicant proposes to use the onsite abstraction bores for dust suppression by wetting down stockpiles and work areas. The existing fence contains mesh to assist in containing dust.	Moderate	Possible	Medium	Due to the proximity of this receptor, the Delegated Officer considers that dust emissions could impact on receptors to a moderate degree.	Works approval conditions requiring: Wetting down of trafficked areas as required to prevent dust lift off; Wetting of C&D material when constructing noise bunds
		Markets located 340m west of prescribed activities			Minor	Possible	Low	In considering the Applicant's controls, proposed activity and distances to receptors, the risk rating for these receptors has been determined as low.	
		Residential receptors located 460m north of Premises			Slight	Unlikely	Low		
		Bush Forever areas located 590m west of prescribed activities	Migration of emission through prevailing air/wind direction reducing photosynthesis ability in vegetation.		Minor	Unlikely	Low		

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities	**Potential emissions**	**Potential receptors**	**Potential pathway & impact**	**Applicant controls**					
Placement of crushing and screening equipment onsite including vehicle movements Construction of noise bunds (using onsite uncrushed construction and demolition material)	Dust: The placement of equipment onsite does not generate any point source dust emissions and only fugitive dust liftoff may occur during placement. Positioning of C&D waste to create the noise bunds may result in generation of dust.	Compensation basin located 400m south-east of prescribed activities	Migration of emission through air/wind causing impacts to surface water quality and impacts on flora and fauna within these areas	The Premises predominantly consists of a hardstand area which assists in reducing dust liftoff from vehicle movements. The Applicant proposes to use the onsite abstraction bores for dust suppression by wetting down stockpiles and work areas. The existing fence contains mesh to assist in containing dust.	Slight	Unlikely	Low	In considering the Applicant's controls, proposed activity and distances to receptors, the risk rating for these receptors has been determined as low.	As specified above
		Emu Swamp Reserve located 550m north-west of prescribed activities			Slight	Unlikely	Low		
Placement of crusher onsite including vehicle movements Construction of noise bunds	Noise	Commercial and light industries located adjacent to Premises boundary	Migration of emission through air/wind causing impacts to health and amenity	Where feasible, the Applicant will install silencers on machinery.	Slight	Rare	Low	In considering the Applicant's controls, proposed activity and distances to receptors, the risk rating for these receptors has been determined as low.	N/A
		Markets located 340m west of prescribed activities							
		Residential receptors located 460m north of Premises							

Risk assessment – operation

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source or Activities	**Potential emissions**	**Potential receptors**	**Potential pathway & receptor (impact)**	**Applicant controls**					
Crushing/screening of construction and demolition waste Storage and handling of waste Vehicle movements	Dust	Commercial and light industries located adjacent to Premises boundary	Migration of emission through air/wind causing impacts to health and amenity	The Applicant proposes to use the onsite abstraction bores for dust suppression by wetting down stockpiles and work areas. The existing fence contains mesh to assist in containing dust. Crushing activities are anticipated to take no more than 10 weeks to complete.	Major	Possible	High	Given the proximity to residents and dust generating activities occurring onsite, major amenity impacts to these receptors could occur at some time.	Licence conditions requiring: Wetting down of stockpiles and trafficked areas as required; Ensuring waste is in a damp state prior to crushing; Maintaining water sprays, or similar, on crushing and screening equipment.
		Markets located 340m west of prescribed activities			Major	Possible			
		Residential receptors located 460m north of Premises			Moderate	Possible	Medium	Given the proximity to residents and location within the prevailing wind direction, moderate amenity and environmental impacts to these receptors could occur at some time.	
		Bush Forever areas located 590m west of prescribed activities	Migration of emission through air/wind causing impacts to photosynthesis in vegetation		Moderate	Possible			
		Compensation basin located 400m south-east of prescribed activities	Migration of emission through air/wind causing impacts to surface water quality		Moderate	Unlikely	Medium	As specified below	

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source or Activities	**Potential emissions**	**Potential receptors**	**Potential pathway & receptor (impact)**	**Applicant controls**					
Crushing/screening of construction and demolition waste Storage and handling of waste Vehicle movements	Dust	Emu Swamp Reserve located 550m north-west of prescribed activities	Migration of emission through air/wind causing impacts to surface water quality	As specified above	Moderate	Unlikely	Medium	In considering the Applicant's controls and considering that these receptors are not in the prevailing wind direction, moderate environmental impacts will probably not occur in most circumstances	As specified above
	Noise	Commercial and light industries located adjacent to Premises boundary Markets located 340m west of prescribed activities Residential receptors located 460m north of Premises	Migration of emission through air/wind causing impacts to health and amenity	The Applicant has proposed to construct noise bunds from C&D waste and use sea containers as a means of reducing impacts to receptors from noise emissions. Crushing activities are anticipated to take no more than 10 weeks to complete. Where able, the Applicant will install silencers on machinery.	Moderate	Unlikely	Medium	DWER's Noise Branch has reviewed the Applicant's acoustic assessment and considers that the assigned day-time noise levels specified in the *Environmental Protection (Noise) Regulations 1997* will be met.	Licence conditions specifying: location of crushing/screening equipment within the Premises, maintaining noise bund infrastructure; and setting operational hours of noise-generating equipment.

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source or Activities	**Potential emissions**	**Potential receptors**	**Potential pathway & receptor (impact)**	**Applicant controls**					
Storage and handling of waste	Leachate	Groundwater between 6 – 12m bgl	Seepage through hardstand areas and run-off from hardstand causing contamination of groundwater supply for nearby users	No specific controls have been proposed by the Applicant however the Premises is predominantly hardstand and the waste proposed to be crushed and stored onsite is considered to be inert in nature.	Slight	Rare	Low	Any leachate generated from the storage of inert waste will pose little to no impact to groundwater quality due to the nature of the waste	N/A
Storage and handling of waste	Leachate	Bush Forever areas located 590m west of prescribed activities	Seepage through soil, transport through groundwater and runoff causing ccontamination of land (soil) and impacts to vegetation	No specific controls have been proposed by the Applicant however the Premises is predominantly hardstand and the waste proposed to be crushed and stored onsite is considered to be inert in nature. No additional wastes are proposed to be brought onto the premises.	Slight	Rare	Low	Any leachate generated from the storage of inert waste will pose little to no impact to groundwater quality due to the nature of the waste	N/A
		Compensation basin located 400m south-east of prescribed activities	Seepage through soil, transport through groundwater and runoff causing ccontamination of surface waters at the point of groundwater expression						
		Emu Swamp Reserve located 550m north-west of prescribed activities							
Crushing/screening of construction and demolition waste Storage and handling of waste	Asbestos	Commercial and light industries located adjacent to Premises boundary	Migration of emission through air/wind causing impacts to health	An Environmental Due Diligence Report has been prepared for the source material. It concluded that, given the age of the building, asbestos is unlikely to be present within the demolished material.	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	Licence conditions specifying: No asbestos is authorised to be crushed; Visual inspection of waste;
		Markets located 340m west of prescribed activities							

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source or Activities	**Potential emissions**	**Potential receptors**	**Potential pathway & receptor (impact)**	**Applicant controls**					
Crushing/screening of construction and demolition waste Storage and handling of waste	Asbestos	Residential receptors located 460m north of Premises	Migration of emission through air/wind causing impacts to health	No additional wastes will be brought onto site. Additional controls have also been put in place as a contingency in the event that asbestos is present. The Applicant's staff are trained in asbestos identification and removal including undertaking a Restricted Asbestos Licence Training course which provides education in relevant Australian legislation, guidelines and codes of practice. All tipped excavator loads are visually inspected and if asbestos is identified, it is isolated, contained and removed offsite via the Applicant's Controlled Waste Carrier Licence.	Severe	Rare	High	is rare, due to the severe health impacts that could occur from this emission, the overall risk rating remains high. The Applicant is required under the Development Approval to handle, use, remove and dispose of asbestos in accordance with the *Health (Asbestos) Regulations 1992* and the *Environmental Protection (Controlled Waste) Regulations 2001.*	Maintaining waste in a damp state before crushing; Testing of crushed waste stockpiles for asbestos content; Wetting down of stockpiles, unprocessed waste and trafficked areas as required for dust suppression/

6. Consultation

Method	Comments received	DWER response
Application advertised on DWER website	None received	NA
Applicant notified of draft 19/09/2018	Comments received 26/09/2018 and 27/09/2018: 1. Request change to Table 2 to allow for 'equivalent' equipment to those listed in the Table; 2. The stockpiles for noise bunds must be at least 4.8m in height however the stockpiles will initially be between 6 – 7m due to the quantity of onsite material. 3. Request replacement of the Premises Map to be more representative of location of noise bunds. 4. Seeking clarity as to whether a person who has completed the Department of Mines, Industry Regulation and Safety (DMIRS) noise officer course, authorising them to undertake noise assessments in accordance with *AS/NZ 1269.1 Occupational noise management – Measurement and assessment of noise emission and exposure,* is appropriate for works approval compliance signoff. 5. Due to operational costs in hiring crushing and screening equipment, the Applicant has requested that the machinery is not brought onto the premises until a Licence has been granted. The noise bunds will be constructed during the works approval phase.	1. Please refer to point 5 below. As the equipment requirements have been removed from Table 2, this comment is not applicable for the works approval however it has been noted and will be considered for inclusion in the licence. 2. No action undertaken – the conditions specify that the noise bunds must be a minimum of 4.8m and is therefore not impacted if the stockpiles are initially higher than this. 3. The Premises map has been replaced with the map provided by the Applicant. This has also been replaced in the decision report. 4. Information provided back to the Applicant clarified that if the Noise Officer was qualified to verify compliance of the noise bunds and had the Applicant's authority to act on their behalf, then this would be sufficient for the noise perspective however it was suggested to have a representative of the Applicant confirm compliance holistically for the works approval. 5. The requirements to bring the crushing and screening equipment onto the Premises have been removed from the works approval and will instead be placed onto the licence when it is granted. This has not altered the level of risk to the environment or public health.
Applicant referred revised draft 28/09/2018	Comments received 1/10/2018 requesting that the comment period be waived and the works approval granted as soon as possible.	N/A

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).

Based on this assessment, it has been determined that the Works Approval will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

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.

Rebecca Kelly

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Date: 2018.10.03 13:19:33 +08'00'

Rebecca Kelly
MANAGER WASTE INDUSTRIES
Delegated Officer under section 20 of the *Environmental Protection Act 1986*

Appendix 1: Key documents

Document title	Availability
Application for works approval – Brajkovich Demolition and Salvage (WA) Pty Ltd – 10 Bonner Drive, Malaga, including all supporting documentation	DWER records (A1620412; A1668904; A1699292; A1711201)
DER, July 2015. *Guidance Statement: Regulatory principles.* Department of Environment Regulation, Perth.	accessed at www.dwer.wa.gov.au
DER, October 2015. *Guidance Statement: Setting conditions.* Department of Environment Regulation, Perth.	
DER, August 2016. *Guidance Statement: Licence duration.* Department of Environment Regulation, Perth.	
DER, February 2017. *Guidance Statement: Risk Assessments*. Department of Environment Regulation, Perth.	
DER, February 2017. *Guidance Statement: Decision Making*. Department of Environment Regulation, Perth.	