



Licence Number	L9104/2017/1
Licence Holder	Barradale Sands Pty Ltd
ACN	606 114 363
File Number:	DER2017/001787-1
Premises	Barradale Sand Project Mining Lease M08/497 and Miscellaneous Licence L08/108 YANNARIE WA 6710
Date of Report	26 September 2019
Decision / Proposed Decision	Granted

1. Definitions and interpretation

Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
AACR	Annual Audit Compliance Report
ACM	means Asbestos Containing Material
ACN	Australian Company Number
AER	Annual Environment Report
Amendment Notice	refers to this document
AS 4156.6 – 2000	Australian Standard AS 4156.6 – 2000: Determination of Dust/moisture Relationship for Coal.
Asbestos	means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite and any mixture containing 2 or more of those.
Asbestos Containing Material	has the meaning defined in the Guidelines for Assessment, Remediation and Management of Asbestos Contaminated Sites, Western Australia, (DOH, 2009)
Asbestos Guidelines	means document titled, “Guidelines for managing asbestos at construction and demolition waste recycling facilities”, published by the Department, as amended from time to time.
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 Cloisters Square PERTH WA 6850 info@dwer.wa.gov.au
Condition	means a condition to which this Licence is subject under s.62 of the EP Act.
CS Act	<i>Contaminated Sites Act 2003 (WA)</i>

Term	Definition
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> 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	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
Inert Waste Type 1	has the meaning defined in Landfill Definitions
Landfill Definitions	<i>Landfill Waste Classification and Waste Definitions 1996 (as amended 2018)</i>
Licence Holder	Barradale Sands Pty Ltd
m ³	cubic metres
Minister	the Minister responsible for the EP Act and associated regulations
NEPM	National Environmental Protection Measure
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (WA)</i>
Occupier	has the same meaning given to that term under the EP Act.
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 <i>Guidance Statement: Risk Assessment</i>

2. Amendment Description

The following guidance statements have informed the assessment and decision outlined in this Amendment Report.

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Risk Assessment (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

Purpose and scope of assessment

The Premises is a sand mining operation, currently licenced (L9104/2017/1) for screening sand under Category 70, with an approved throughput of less than 50,000 tonnes per annual period.

On 18 February 2019 the Licence Holder submitted an application to transfer the Licence Holder name. On 15 March 2019 the Licence Holder submitted an application to add Category 13 for crushing of construction and demolition waste. This assessment considers both proposed changes.

For the administrative change, the current Licence Holder proposes to transfer the Licence from their personal name to a business entity of which they are the Company Director.

The addition of Category 13 is to accept concrete waste from construction and demolition sources, to crush and largely use on site as road base and laydown area foundations. The Licence Holder expects to use all the suitable crushed materials on site. Any fine concrete material that is less than 20 mm in size that is unsuitable for use on site would be stockpiled separately and sold as 'cracker dust'.

The by-products and waste products of the crushing process are metal reinforcing material fragments ('rio bar') and fine concrete materials, less than 20 mm diameter. Any metal fragments will be separated by a magnetic separator and stockpiled in 4,200 L drums then disposed of off-site.

The crushing plant will remain in one location, as depicted in the updated Licence site layout map. The plant is a mobile unit and there are no construction or significant commissioning elements, only delivery via semi-trailer, off-loading, positioning at the designated location and extending the conveyor belt arms.

The main sources of possible emissions from these activities are dust and noise from crushing and storage of crushed materials, and asbestos fibres that may be within the construction and demolition waste source.

Table 2 outlines the proposed addition to the Licence.

Table 2: Proposed Category 13 throughput capacity

Category	Proposed throughput capacity
13: Crushing of building material	20,000 tonnes per annual period

3. Other approvals

The Premises operates within Mining Lease M08/497 and Miscellaneous Licence L08/108.

4. Amendment history

This is the first amendment to this Licence since it was issued.

5. Location and receptors

The premises is located on the bank of the Yannarie River, approximately 125 km southeast of Exmouth in the Shire of Ashburton. It is adjacent to the North West Coastal Highway. Table 3 lists the sensitive receptors identified in the vicinity of the Prescribed Premises.

Table 3: Receptors and distance from activity and premises boundary

Residential and sensitive premises	Description and distance from Prescribed Premises
Rest area located on the North West Coastal Highway.	<p>Yannarie River (Barradale) 24 hour rest area.</p> <p>The nearest part of the rest area is approximately 550 m from the proposed crushing plant location, approximately 300 m to the northeast of the Premises boundary.</p> <p>The Shire of Ashburton has previously noted that the rest area is especially popular in winter with up to 50 vehicles observed camped at night at times. Travellers are permitted to stay for a maximum of 24 hours.</p>
Temporary dwelling	<p>The dwelling not considered to be a permanent residence, and is located approximately 1100 m northeast of the proposed crushing plant location and approximately 700 m to the northeast of the Premises boundary</p>

Table 4 lists the environmental receptors in the vicinity of the Prescribed Premises, including protected fauna whose presence has been recognised since the Licence was issued.

Table 4: Environmental receptors and distance from activity and premises boundary

Environmental receptors	Description and distance from Prescribed Premises
Protected fauna	<p>Recorded species include:</p> <p><i>Falco peregrinus</i> (Peregrine falcon) recorded approximately 750 m from the proposed crushing plant location, and 400 m to the northeast of the premises boundary; and</p> <p><i>Calidris ruficollis</i> (Red-necked stint) recorded approximately 850 m to the northeast of the proposed crushing plant location, and 450 m from the premises boundary.</p>
Yannarie River	<p>The Premises is located immediately adjacent to the river.</p>

6. Pathways

Air is the main pathway between potential emission sources related to the proposed amendment, and sensitive receptors on this premises. The nearest Bureau of Meteorology station is at Emu Creek, approximately 16 km from Yannarie. The prevailing wind directions recorded at Emu Creek are south to southeast in the morning and south in the afternoon (Figure 1). Dominant wind directions do not travel toward the sensitive receptors located northeast of the site. There have been no recent complaints recorded for dust or noise for this site.

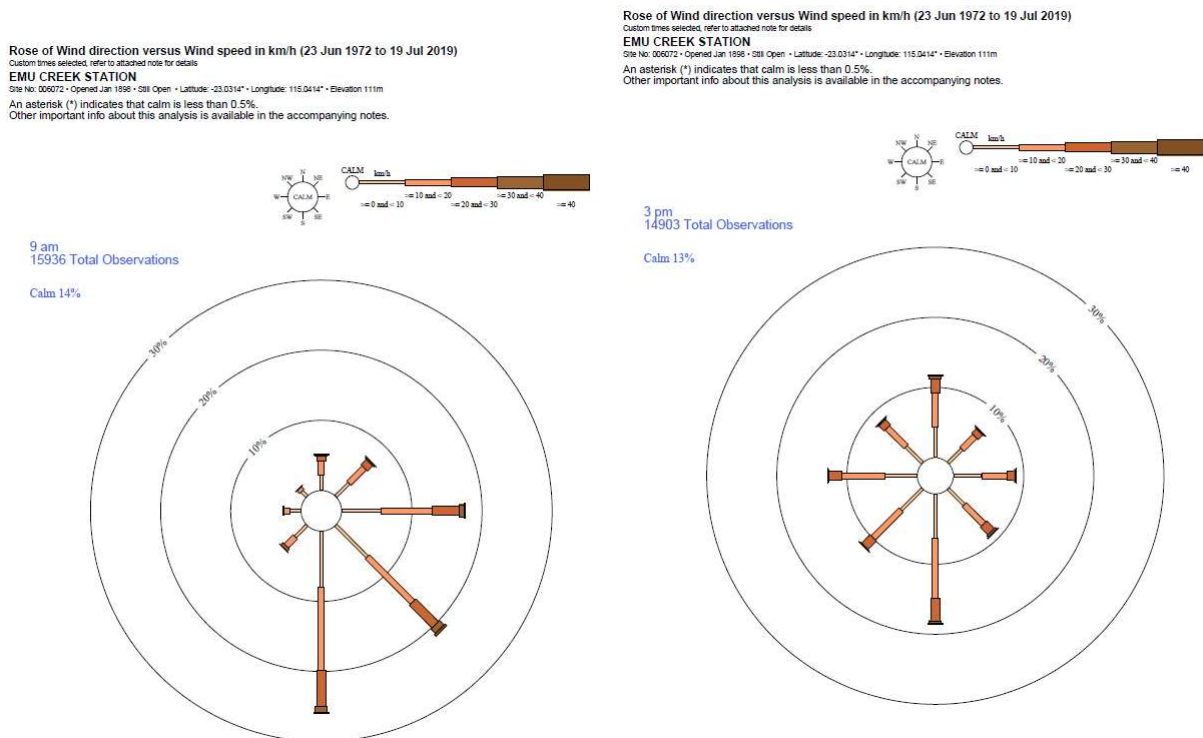


Figure 1: Wind roses for Emu Creek weather station (No. 006072) giving the prevailing annual wind directions at 9am (left) and 3pm (right) using data from June 1972 to July 2019.

Crushed materials that are stored awaiting use or sale could be washed into the Yannarie River and downstream with seasonal rains. Although the current sand mining operations also disturb sediment from the river bank, the imported construction and demolition waste has the potential to introduce contaminants, including asbestos, to downstream areas north of the Premises. The Yannarie River is ephemeral and water flows only in times of heavy seasonal rainfall. It is endoreic, with the water disappearing into the sandy country to the north of the highway and draining into the Coastal Plains geomorphic province near Yanrey Station.

7. Applicant controls

Table 5 summarises the management measures proposed by the Licence Holder as part of the application. It is noted that no controls were proposed for the management of potential stormwater emissions.

Table 5: Controls proposed by applicant

Emission (as identified above)	Source	Controls proposed by the Applicant
Dust	Crushing, use of crushed materials	Submitted a Dust Management Plan prepared by contractor Drilline Civil & Haulage which includes: <ul style="list-style-type: none"> • Management to prevent visible dust discharging beyond the Premises boundary • Water sprays to prevent dust on roads, hardstands and processing areas • Water cannons to be prevent dust on stockpiles and inaccessible areas • Changing operating conditions during weather conditions such as strong winds to prevent dust emissions • Training staff in dust management
Noise	Crushing, use of crushed materials	Controls are described in the decision report associated with licence L9104/2017/1 and include: Operation only during daylight hours and with start times so as to be compliant with the Noise Regulations.
Asbestos	Acceptance, crushing and use of construction and demolition waste	Submitted an Asbestos Management Plan for Inert Material (dated 28 January 2019) prepared by contractor Drilline Civil & Haulage and include: <ul style="list-style-type: none"> • Load acceptance procedures • Training staff in asbestos management • Record keeping

8. Risk assessment

Table 6 describes the Risk Events associated with the proposed amendment, consistent with the *Guidance Statement: Risk Assessments*. The table identifies whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Table 6: Risk assessment for proposed amendments during operation

Risk event						Consequence rating	Likelihood rating	Risk	Reasoning
Source / Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts	Applicant controls				
Crushing of concrete waste	Dust associated with crushing	Transient users of the rest area	Air	Health and amenity impacts	Management to prevent visible dust discharging beyond the Premises boundary Water sprays to prevent dust on roads, hardstands and processing areas Water cannons to prevent dust on stockpiles and inaccessible areas Changing operating conditions during weather conditions such as strong winds to prevent dust emissions Training staff in dust management	Minor	Unlikely	Medium	Based on the maximum 24 hour duration of exposure to travelers utilizing the rest area, the distance to the rest area, the intermittent crushing, and the current dust management conditions on the Licence.
Storage of fine concrete material by-product and road base awaiting use	Dust associated with materials storage	Transient users of the rest area	Air	Health and amenity impacts		Minor	Unlikely	Medium	Based on the maximum 24 hour duration of exposure to travelers utilizing the rest area, the distance to the rest area and the current dust management conditions on the Licence.
Crushing of concrete waste	Noise associated with crushing	Transient users of the rest area	Air	Health and amenity impacts	Operation only during daylight hours and with start times so as to be compliant with the Noise Regulations.	Minor	Unlikely	Medium	Based on the maximum 24 hour duration of exposure to travelers utilizing the rest area, the distance to the rest area, the intermittent crushing, and the current noise management conditions on the Licence.
		Protected fauna listed in Table 4	Air	Adverse impacts to the suitability of habitat		Major	Rare	Medium	Based on the distance to the recorded location, transient nature of recorded fauna, intermittent duration of crushing and the current noise management conditions on the Licence.
Crushing and storage of crushed concrete	Asbestos fibres from contaminated concrete waste	Transient users of the rest area	Air	Health impacts associated with exposure to asbestos fibres	Load acceptance procedures Training staff in asbestos management Record keeping	Major	Rare	Medium	With licence conditions to prevent and limit release of asbestos fibres.
Storage of fine concrete material by-product and road base awaiting use	Runoff containing sediments from a source that may contain asbestos and other contaminants	Yannarie River including: - Ephemeral aquatic and riparian ecosystem; and - Potential users of the downstream water	Overland flow or seepage of runoff. Air	Health impacts associated with exposure to asbestos fibres Adverse impacts to aquatic and riparian ecosystems	Asbestos screening procedures as listed in Section 7	Major	Unlikely	Medium	Based on the limited storage of crushed materials. With licence conditions to prevent and limit release of contaminants from stockpiles. With licence conditions to prevent sediment laden runoff moving into the Yannarie River.

9. Consultation

The consultation carried out in this assessment is summarized in Table 77.

Table 7: Summary of consultation

Method	Comments received	DWER response
Local Government Authority advised of proposal (26 May 2019)	The Shire of Ashburton noted they expected that dust levels would increase and queried the intended dust management controls (31 May 2019).	The Delegated Officer notes that dust is a recognised emission and control of dust will form part of the updated licence conditions considered in this report.
Department of Planning, Lands and Heritage advised of proposal (29 May 2019)	Notes no objection to the proposed amendment (11 June 2019)	The Delegated Officer notes the advice.
Department of Mines, Petroleum and Industry Safety (30 May 2019)	No comments received.	n/a

10. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a licence amendment will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

Summary of amendments

Table 8 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence.

Table 8: Licence amendments

Condition No.	Proposed amendments
Cover page	New Licence Holder name
1-10	Added waste acceptance criteria condition and table specifying what can be accepted for the purposes of crushing
12, Table	Added new infrastructure, equipment and operational requirements related to crushing
14, Table 7	Monitoring inputs and outputs of construction and demolition waste and any on-sold products
15	Record keeping of inputs in Condition 14
Schedule 2	Added primary activities related to crushing

Tracey Hassell

A/MANAGER WASTE INDUSTRIES

INDUSTRY REGULATION

An officer delegated by the CEO under section 20 of the EP Act

Licence Holder's comments

The Licence Holder was provided with the draft updated Licence and this Amendment Report on 08 August 2019. On 25 September 2019, the Licence Holder and advisor (Newland Environmental) confirmed they had no comments.

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L9104/2017/1	L9104/2017/1	accessed at www.dwer.wa.gov.au
2	DER, December 2012. <i>Guideline – asbestos in construction and demolition recycling - Version 1</i> , Department of Environment Regulation, Perth		
3	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
4	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
5	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2016b	