



Application for Licence

Division 3, Part V *Environmental Protection Act 1986*

Licence Number	L9207/2019/1
Applicant	Bardies Well Pty Ltd
ACN	152 566 633
File Number	DER2019/000310
Premises	Bardies Well Quarry Mining Lease M47/226 and M47/293 KARRATHA WA 6714
Date of Report	19 December 2019
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Table of Contents

1. Definitions of terms and acronyms	3
2. Purpose and scope of assessment	5
2.1 Application details	5
3. Background	5
4. Overview of Premises	5
4.1 Operational aspects	5
4.2 Infrastructure	6
4.3 Exclusions to the Premises	6
5. Legislative context	7
5.1 Part IV of the EP Act	7
5.1.1 Background	7
5.2 Part V of the EP Act	7
5.2.1 Applicable regulations, standards and guidelines	7
5.2.2 Works approval and licence history	7
5.2.3 Key and recent works approvals	8
5.2.4 Clearing	9
6. Consultation	9
7. Location and siting	9
7.1 Siting context	9
7.2 Residential and sensitive Premises	9
7.3 Groundwater and water sources	9
7.4 Meteorology	10
8. Risk assessment	11
8.1 Determination of emission, pathway and receptor	11
8.2 Consequence and likelihood of risk events	16
8.3 Acceptability and treatment of Risk Event	17
8.4 Summary of acceptability and treatment of Risk Events	17
9. Regulatory controls	18
9.1 Licence controls	19
9.1.1 Dust infrastructure and equipment	19
9.1.2 Noise infrastructure and equipment	19
9.1.3 Sediment / hydrocarbons infrastructure and equipment	19
9.1.4 Monitoring reports	19
10. Determination of Licence conditions	19
11. Applicant's comments	20

12. Conclusion	20
Appendix 1: Key documents	21
Appendix 2: Summary of applicant’s comments on risk assessment and draft conditions	23
Attachment 1: Issued Licence L9207/2019/1	24
Table 1: Definitions	3
Table 2: Documents and information submitted during the assessment process.....	5
Table 3: Prescribed Premises Categories in the Existing Licence	5
Table 4: MCF Category 12 infrastructure	6
Table 5: Relevant approvals and tenure.....	7
Table 6: Works approval and licence history	7
Table 7: Compliance reports	8
Table 8: Receptors and distance from activity boundary	9
Table 9: Groundwater and water sources.....	9
Table 10: Identification of emissions, pathway and receptors during operation	11
Table 11: Risk rating matrix.....	16
Table 12: Risk criteria table.....	16
Table 13: Risk treatment table	17
Table 14: Risk assessment summary.....	17
Table 15: Summary of regulatory controls to be applied.....	18
Table 16: Summary of conditions to be applied.....	20

1. Definitions of terms and acronyms

In this Decision Report, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CS Act	<i>Contaminated Sites Act 2003 (WA)</i>
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 <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 As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of the <i>Environmental Protection Act 1986</i> along with other legislation.
EPA	Environmental Protection Authority
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
Licence Holder	Bardies Well Pty Ltd
mbgl	Metres below ground level

mtpa	million tonnes per annum
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
Primary Activities	as defined in Schedule 2 of the Revised Licence
Review	this Licence review
Risk Event	As described in <i>Guidance Statement: Risk Assessment</i>
RL mAHD	Reduced Level metres Australian Height Datum
SWL	Standing Water Level
UDR	<i>Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)</i>

2. Purpose and scope of assessment

The Applicant has applied for a Licence to operate a Mobile Crushing Facility (MCF) and associated infrastructure, which has been installed under Works Approval W6188/2018/1.

2.1 Application details

This application is for a new Licence to operate the MCF, following installation of the MCF under Works Approval W6188/2018/1, which has now occurred.

Table 2 lists the documents submitted during the assessment process.

Table 2: Documents and information submitted during the assessment process

Document/information description	Date received
Bardies Well Quarry Licence Application	17 May 2019
Compliance Documentation for the Crushing and Screening Plants	18 June 2019 and 03 July 2019
Compliance Documentation for the stormwater and sediment control measures, water storage tank and diesel tank	25 November 2019
RE: APPLICANT NOTIFICATION - APPLICATION FOR A LICENCE L9207/2019/1 - DRAFT INSTRUMENT AND DECISION REPORT	18 December 2019

3. Background

Mining tenements M47/226 and M47/293 have been held since 1990 and 1992 respectively and the hard rock quarry has been operated intermittently since that time. The quarry is not currently operated.

The Applicant has installed and is proposing to operate a MCF at the Bardies Well Quarry Project on Mining Tenements M47/226 and M47/293. Works Approval W6188/2018/1 was issued on 28 February 2019 for the installation of the MCF.

Table 3 lists the prescribed premises categories that have been applied for.

Table 3: Prescribed Premises Categories in the Existing Licence

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.	350,000 tonnes per annum

4. Overview of Premises

4.1 Operational aspects

The MCF, consisting of track mounted jaw crushers, track mounted cone crusher and mobile track mounted screen to screen various sizes and capacities.

4.2 Infrastructure

The MCF infrastructure, as it relates to Category 12 activities, is detailed in Table 4 and with reference to the Site Plan (attached in the Issued Licence).

Table 4 lists infrastructure associated with each prescribed premises category.

Table 4: MCF Category 12 infrastructure

	Infrastructure	Site Plan Reference
	Prescribed Activity Category 12	
Screening of up to 350,000 tonnes per annum aggregate material		
1	Crushing and screening plant area	Schedule 1: Premises Maps
2	Jaw crushers and screens (fitted with water sprays and sprinklers): <ul style="list-style-type: none"> • 2 mobile crushing units LT3054 and LT110: <ul style="list-style-type: none"> ➢ XA750 jaw crusher; ➢ Person 1300 cone crusher; • QA440 sand screen. 	Schedule 1: Premises Maps
3	Conveyors (with covers for dust suppression)	Schedule 1: Premises Maps
4	1 x 980 k wheel loaders	
5	1 x 120h grader	
6	1 x 330d excavator	
7	1 x 740B articulated dump truck	
8	30,000L water truck fitted with spray bars for dust suppression	
9	weighbridge	
10	50,000L self bunded diesel storage tank	
11	Stockpile areas	
12	Sediment control measures (such as silt fences, grading, bunding, gabions etc.) to direct sediment laden stormwater from processing plant and processing area to sediment ponds and/or sumps or prevent uncontaminated stormwater from entering the creek or leaving the site	
13	Sediment ponds and/or sumps for the collection of sediment laden stormwater	
14	Barriers installed around processing plant motors for noise attenuation measures	
15	Minimum of 50,000L water stored in a tank/s for dust suppression	

4.3 Exclusions to the Premises

The Premises includes existing quarry cells, administration offices, machinery sheds and workshops, parking and ablution facilities. General extractive hard rock quarrying, including blasting is also undertaken on the premises. These activities do not meet the description of Prescribed Premises therefore this Decision Report does not consider emissions such as light, odour, sewage, noise or dust associated with these activities.

5. Legislative context

Table 5 summarises approvals relevant to the assessment.

Table 5: Relevant approvals and tenure

Legislation	Number	Approval
Mining Act 1978	Mining Leases M47/226 and M47/293	Rock mining of M47/226 and M47/293 has been authorised for mining since 1990 and 1992 with the Department of Mines, Industry Regulation and Safety (DMIRS) with expiry dates 25/07/2032 and 07/07/2034 respectively.
Environmental Protection Act 1986	CPS 5219/1	Approval obtained in 2012 to clear 10.77 ha of native vegetation.
Planning and Development Act 2005	N/A	The City of Karratha confirmed no planning approval is needed.

5.1 Part IV of the EP Act

5.1.1 Background

This proposal was referred to Part IV of the EP Act as it is not a 'significant proposal'.

5.2 Part V of the EP Act

5.2.1 Applicable regulations, standards and guidelines

The overarching legislative framework of this assessment is the EP Act and EP Regulations.

The guidance statements which inform this assessment are:

- *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: Publication of Annual Audit Compliance Reports (May 2016);*
- *Guidance Statement: Decision Making (June 2019);*
- *Guidance Statement: Risk Assessments (February 2017); and*
- *Guidance Statement: Environmental Siting (November 2016).*

5.2.2 Works approval and licence history

Table 6 summarises the works approval and licence history for the premises.

Table 6: Works approval and licence history

Instrument	Issued	Nature and extent of works approval, licence or amendment
W6188/2018/1	28 February 2019	Installation of MCF
L9207/2019/1	19 December 2019	Operation of MCF

5.2.3 Key and recent works approvals

Works Approval W6188/2018/1 was issued on 28 February 2019 for the installation of the MCF. Compliance reports received are shown in Table 7.

Table 7: Compliance reports

Infrastructure / Equipment	Requirements (design and construction)	Site plan reference in Schedule 1	Compliance Report received
2 mobile crushing units (LT3054, LT110 or equivalent) including: <ul style="list-style-type: none"> Jaw crushers and screens; Person cone crusher; Sand screen; and Conveyors 	<ul style="list-style-type: none"> Dust suppression sprays to be fitted on crushers and screens; and Dust shields and covers to be fitted on conveyors and transfer points 	Processing area and processing plant	18 June 2019 03 July 2019
Water storage and reticulation for dust suppression such as tanks, pipes etc.	Minimum of 50,000L stored in a tank/s	Not shown on map	25 November 2019
Processing area and plant	<ul style="list-style-type: none"> The processing area must be graded to direct uncontaminated stormwater away from the processing area. Potentially contaminated stormwater must drain to sediment pond/s and/or sumps. Sediment control measures (such as silt fences, grading, bunding, gabions etc.) must be installed to direct sediment laden stormwater from the processing area to sediment ponds and/or sumps and to prevent contaminated stormwater from entering the ephemeral creek. 	Processing area and processing plant	25 November 2019
Stockpile area	<ul style="list-style-type: none"> Bunding and/or gabions to be installed around stockpiles to retain sediment. 	Stockpile Area	25 November 2019
Stormwater and sediment control infrastructure	<ul style="list-style-type: none"> Sediment pond/s and/or sediment sumps must be constructed to contain sediment laden stormwater. Sediment control measures (such as silt fences, bunding, gabions etc) must be constructed to direct sediment laden stormwater to the sediment pond/s and/or sumps and prevent it from leaving the site or entering the ephemeral creek. 	Not shown on map	25 November 2019
50,000L diesel storage tank	Self-bunded tank		25 November 2019

All aspects of the Works Approval have been complied with and DWER is in a position to grant a licence as required by section 57(2)(a) of the EP Act.

5.2.4 Clearing

Clearing Permit CPS 5219/1 was obtained in 2012 under the *Environmental Protection Act 1986* to clear 10.77 ha of native vegetation.

6. Consultation

A copy of the draft Decision Report and Licence were provided to the Applicant for comment on 10 December 2019.

7. Location and siting

7.1 Siting context

Bardies Well Quarry is located approximately 12 km southeast of KARRATHA in the Pilbara region of Western Australia.

7.2 Residential and sensitive Premises

The distances to residential and sensitive receptors are detailed in Table 8.

Table 8: Receptors and distance from activity boundary

Sensitive Land Uses	Distance from Prescribed Activity
Rural Dwellings	Approximately 10km north west from the screening operations
Karratha Industrial Estate	Approximately 7km north west of screening operations
City of Karratha Town site	Approximately 13.5km north west of premises boundary
Environmental Receptors	Distance from Prescribed Activity
Nickol River	Located approximately 2.5km east of premises boundary
Nickol Bay	Located approximately 12.5km from the premises boundary
Ephemeral Creek	Located between mining tenements M47/226 and M47/293

7.3 Groundwater and water sources

The distances to groundwater and water sources are shown in Table 9.

Table 9: Groundwater and water sources

Groundwater and water sources	Distance from Premises	Environmental value
Public drinking water source areas	Karratha's drinking water supply is sourced from Millstream National	Potable water for drinking

	Park (approximately 150 km southeast of Karratha) and Harding Dam (approximately 63 km south east of Karratha)	purposes.
Major watercourses/waterbodies	<p>There is an ephemeral creek line running between the two mining tenements.</p> <p>Run-off occurs mainly after heavy or prolonged rainfall, which tends to be associated with tropical cyclones or thunderstorms during the summer months.</p> <p>There is a second ephemeral creek line in the north-east corner of M47/226. This creek line will be avoided.</p>	Flora and fauna habitat.
<p>Groundwater</p> <p>Bardies Well Pty Ltd is in the process of a groundwater quality monitoring campaign and plans to submit the results to DWER in January 2020. Groundwater level is approximately 25 RLM AHD, however, DWER requests that SWL levels be provided in mbgl.</p>	Groundwater will not be extracted during the project.	Water is not used for potable or industrial use. Water will be sourced from Karratha for production and dust suppression purposes.

7.4 Meteorology

Karratha has a hot semi-arid climate, with temperatures warm to hot all year round and with low rainfall, most of which falls in late summer due to the influence of tropical cyclones and the monsoon, although there is a second rainfall peak in early winter as the northern edges of cold fronts occasionally cause rain in the region.

It is very rare for any rain to fall in the period from August to December. Winter temperatures rarely drop below 10°C, while maximums stay in the mid to high 20°C's and days are sunny with low humidity. Summers are very hot and usually dry although the erratic influence of the monsoon can cause periods of high humidity and thunderstorms.

8. Risk assessment

8.1 Determination of emission, pathway and receptor

In undertaking its risk assessment, DWER will identify all potential emissions pathways and potential receptors to establish whether there is a Risk Event which requires detailed risk assessment.

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission. Where there is no actual or likely pathway and/or no receptor, the emission will be screened out and will not be considered as a Risk Event. In addition, where an emission has an actual or likely pathway and a receptor which may be adversely impacted, but that emission is regulated through other mechanisms such as Part IV of the EP Act, that emission will not be risk assessed further and will be screened out through Table 10.

The identification of the sources, pathways and receptors to determine Risk Events are set out in Table 10 below.

Table 10: Identification of emissions, pathway and receptors during operation

Risk Events					Continue to detailed risk assessment	Reasoning
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
Crushing and Screening activities	<i>Unloading, loading and storage of material</i>	<i>Dust</i>	<i>No residences or other sensitive receptors in close proximity. Residential premises located approximately 10km north west from prescribed operations.</i>	<i>Air / wind</i>	<i>Health and amenity</i>	<i>No</i>

Risk Events					Continue to detailed risk assessment	Reasoning
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
						<p><u>Consequence:</u> Given that onsite impacts would be minimal level, there will be minimal impacts to sensitive receptors. The consequence has been determined as slight.</p> <p><u>Likelihood:</u> The risk event is unlikely to occur due to the dust controls used and the distance to nearest sensitive receptors. The likelihood of the risk event has been determined as rare.</p> <p><u>Overall risk rating:</u> Comparison of the consequence and likelihood ratings described above with the Risk Rating Matrix (<i>Guidance Statement, Risk Assessments 2017</i>) determines the overall rating of impacts from dust during operation of the crushing and plant to be low.</p>
<i>Unloading, loading and storage of material and movement of equipment and machinery</i>	Noise	<i>No residences or other sensitive receptors in close proximity. Residential premises located approximately 10km north west from prescribed operations.</i>	<i>Air / wind</i>	<i>Amenity</i>	No	<p>The Delegated Officer considers that the separation distance between the source and potential receptor is sufficient, the risk of noise impacts is low.</p> <p>Noise controls implemented by the Licence Holder include:</p> <ul style="list-style-type: none"> • Managed in accordance with the <i>Environmental Protection (Noise) Regulations 1997</i>; • Barriers installed around motors which will act as noise barriers; • Equipment regulatory serviced

Risk Events					Continue to detailed risk assessment	Reasoning
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
						<p>and maintained;</p> <ul style="list-style-type: none"> • Incident reporting system to manage any noise incidents; and • Noise complaints investigated and remedied if required. <p><u>Consequence:</u> Given that onsite impacts would be minimal level, there will be minimal impacts to sensitive receptors. The consequence has been determined as slight.</p> <p><u>Likelihood:</u> The risk event is unlikely to occur due to the noise control equipment used and the distance to nearest sensitive receptors. The likelihood of the risk event has been determined as rare.</p> <p><u>Overall risk rating:</u> Comparison of the consequence and likelihood ratings described above with the Risk Rating Matrix (<i>Guidance Statement, Risk Assessments 2017</i>) determines the overall rating of impacts from noise during operation of the crushing and plant to be low.</p>
	<p><i>Contaminated or potentially contaminated stormwater from stockpiles or cleared areas</i></p> <p><i>Leaks or spills of hydrocarbons or</i></p>	<p><i>Sediment and hydrocarbons</i></p>	<p><i>Sediment/hydrocarbons movement from the processing area etc. into the ephemeral creek that runs directly between the two mining tenements could migrate offsite and/or impact the Nickol River.</i></p>	<p><i>Direct discharge</i></p>	<p><i>Sediment laden vegetation within the ephemeral creek line.</i></p>	<p>No</p> <p>The Delegated Officer considers that the equipment controls that have been put in place between the source and potential receptor are sufficient, the risk of sediment / hydrocarbon impacts is medium.</p> <p>Sediment / hydrocarbon controls</p>

Risk Events					Continue to detailed risk assessment	Reasoning
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
	<i>chemicals</i>					<p>implemented by the Licence Holder include:</p> <ul style="list-style-type: none"> • There are no planned emissions / discharges of sediment / hydrocarbons during normal operating conditions; • Hydrocarbons / chemicals are not stored in large quantities onsite and are regularly inspected; • Drainage reports to quarry floor or sediment sumps, which are to be regularly inspected and excavated to maintain capacity, • Containing and appropriately treating potentially contaminated stormwater prior to disposal; • Site is graded to ensure stormwater, wash down and runoff is directed to a low point within the quarry or a collection / settling sump where it can be reused in dust suppression; • Perimeter bunding rock armouring is installed to minimise stormwater entering the site; and • Spill kits regularly inspected and replenished as required. <p><u>Consequence:</u> Given that onsite impacts would be low level, there will be minimal impacts to sensitive receptors. The consequence</p>
		<i>Groundwater in the vicinity of the processing area.</i>	<i>Infiltration</i>	<i>Reduction in groundwater quality impacting upon dependent vegetation and beneficial use of groundwater (stock watering)</i>		

Risk Events					Continue to detailed risk assessment	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway		
						<p>has been determined as minor.</p> <p><u>Likelihood:</u> The risk event is unlikely to occur due to the sediment / hydrocarbon controls used and the distance to nearest sensitive receptors. The likelihood of the risk event has been determined as unlikely.</p> <p><u>Overall risk rating:</u> Comparison of the consequence and likelihood ratings described above with the Risk Rating Matrix (<i>Guidance Statement, Risk Assessments 2017</i>) determines the overall rating of impacts from sediment / hydrocarbons during operation of the crushing and plant to be medium.</p>

8.2 Consequence and likelihood of risk events

A risk rating will be determined for risk events in accordance with the risk rating matrix set out in Table 11 below.

Table 11: Risk rating 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

DWER will undertake an assessment of the consequence and likelihood of the Risk Event in accordance with Table 12 below.

Table 12: Risk criteria table

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the Risk Event occurring.		The following criteria has been used to determine the consequences of a Risk Event 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	<ul style="list-style-type: none"> onsite impacts: catastrophic offsite impacts local scale: high level or above offsite 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> onsite impacts: high level offsite impacts local scale: mid-level offsite 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> onsite impacts: mid-level offsite impacts local scale: low level offsite impacts wider scale: minimal Specific Consequence Criteria (for environment) are at risk of not being met 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> onsite impacts: low level offsite impacts local scale: minimal offsite impacts wider scale: not detectable Specific Consequence Criteria (for environment) likely to be met 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> onsite impact: minimal Specific Consequence Criteria (for environment) met 	<ul style="list-style-type: none"> 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*.

"onsite" means within the Prescribed Premises boundary.

8.3 Acceptability and treatment of Risk Event

DWER will determine the acceptability and treatment of Risk Events in accordance with the Risk treatment Table 13 below:

Table 13: Risk treatment table

Rating of Risk Event	Acceptability	Treatment
Extreme	Unacceptable.	Risk Event will not be tolerated. DWER may refuse application.
High	May be acceptable. Subject to multiple regulatory controls.	Risk Event may be tolerated and may be subject to multiple regulatory controls. This may include both outcome-based and management conditions.
Medium	Acceptable, generally subject to regulatory controls.	Risk Event is tolerable and is likely to be subject to some regulatory controls. A preference for outcome-based conditions where practical and appropriate will be applied.
Low	Acceptable, generally not controlled.	Risk Event is acceptable and will generally not be subject to regulatory controls.

8.4 Summary of acceptability and treatment of Risk Events

A summary of the risk assessment and the acceptability or unacceptability of the risk events set out above, with the appropriate treatment and control, are set out in Table 14 below. Controls have previously been described in detail in Table 10.

Table 14: Risk assessment summary

	Description of Risk Event			Applicant controls	Risk rating	Acceptability with controls (conditions on instrument)
	Emission	Source	Pathway/ Receptor (Impact)			
1.	Fugitive Dust	Unloading, loading and storage of material	Air/wind to sensitive receptor causing health impacts from inhalation of dust and amenity impacts.	Sprinklers, shields, water trucks and speed limits.	Slight consequence Rare likelihood Low Risk	Acceptable subject to regulatory controls
2.	Noise	Unloading, loading and storage of material and movement of equipment and	Air/wind to sensitive receptor causing amenity impacts	Noise barriers and maintenance.	Slight consequence Rare likelihood Low Risk	Acceptable subject to regulatory controls

	Description of Risk Event			Applicant controls	Risk rating	Acceptability with controls (conditions on instrument)
	Emission	Source	Pathway/ Receptor (Impact)			
		machinery				
3.	Sediment / hydrocarbons	Contaminated or potentially contaminated stormwater from stockpiles or cleared areas Leaks or spills of hydrocarbons or chemicals	Sediment/hydrocarbons movement from the processing area etc. into the ephemeral creek that runs directly between the two mining tenements could migrate offsite and/or impact the Nickol River. Infiltration of groundwater in the vicinity of the processing area.	Sediment sumps, treatment, bunding and spill kits.	Minor consequence Unlikely likelihood Medium Risk	Acceptable subject to regulatory controls

9. Regulatory controls

A summary of regulatory controls determined to be appropriate for the Risk Event is set out in Table 15. The risks are set out in the assessment in section 10 and the controls are detailed in this section. DWER will determine controls having regard to the adequacy of controls proposed by the Applicant. The conditions of the Licence will be set to give effect to the determined regulatory controls.

Table 15: Summary of regulatory controls to be applied

		Controls (references are to sections below, setting out details of controls)
		Infrastructure and equipment
Risk Items (see risk analysis in section 8)	1. Fugitive dust	•
	2. Noise	•
	3. Sediment / hydrocarbons impacting on ephemeral creek line	•
	4. Sediment / hydrocarbons impacting on groundwater	•

9.1 Licence controls

Operational requirements have been implemented for infrastructure and equipment.

9.1.1 Dust infrastructure and equipment

The following environmental controls, infrastructure and equipment should be maintained and operated onsite for dust management:

- Dust suppression sprays to be maintained on crushers and screens; and
- Dust shields and covers to be maintained on conveyors and transfer points.

9.1.2 Noise infrastructure and equipment

The following environmental controls, infrastructure and equipment should be maintained and operated onsite for noise management:

- Barriers installed around motors which will act as noise barriers.

9.1.3 Sediment / hydrocarbons infrastructure and equipment

The following environmental controls, infrastructure and equipment should be maintained and operated onsite for stormwater and spill management:

- The processing area must be graded to direct uncontaminated stormwater away from the processing area. Potentially contaminated stormwater must drain to sediment pond/s and/or sumps.
- Sediment control measures (such as silt fences, grading, bunding, gabions etc.) must be maintained to direct sediment laden stormwater from the processing area to sediment ponds and/or sumps and to prevent contaminated stormwater from entering the ephemeral creek.
- Bunding and/or gabions to be maintained around stockpiles to retain sediment.
- Sediment pond/s and/or sediment sumps must be maintained to contain sediment laden stormwater.
- Sediment control measures (such as silt fences, bunding, gabions etc.) must be maintained to direct sediment laden stormwater to the sediment pond/s and/or sumps and prevent it from leaving the site or entering the ephemeral creek.
- Self-bunded diesel storage tank maintained.

9.1.4 Monitoring reports

An Annual Audit Compliance Report is required to be submitted declaring compliance / noncompliance with the conditions of the Licence.

10. Determination of Licence conditions

The conditions in the issued Licence in Attachment 1 have been determined in accordance with the *Guidance Statement: Setting Conditions*.

The *Guidance Statement: Licence Duration* has been applied and the issued licence expires in 13 years from date of issue. This is based on the DMIRS approvals of M47/226 and M47/293, which have expiry dates 25/07/2032 and 07/07/2034 respectively.

Table 16 provides a summary of the conditions to be applied to this Licence.

Table 16: Summary of conditions to be applied

Condition Ref	Grounds
Emissions 1	These conditions are valid, risk-based and enable flexibility in operations.
Infrastructure and Equipment 2	These conditions are valid, risk-based and contain appropriate controls.
Record-keeping and Environmental Compliance 3, 4, 5 and 6	These conditions are valid and are necessary administration and reporting requirements to ensure compliance.

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 Licence under the EP Act.

11. Applicant's comments

The Applicant was provided with the draft Decision Report and draft issued Licence on 10 December 2019. The Applicant provided comments which are summarised, along with DWER's response, in Appendix 2.

12. 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 Issued Licence will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

ALANA KIDD
MANAGER, RESOURCE INDUSTRIES
Delegated Officer
under section 20 of the *Environmental Protection Act 1986*

Appendix 1: Key documents

	Document title	In text ref	Availability
1.	Works Approval W6188/2018/1 – Bardies Well Pty Ltd	W6188/2018/1	accessed at www.der.wa.gov.au
2.	Application for Licence – Bardies Well Quarry	N/A	DWER records (A1789796)
3.	Email titled “RE: Bardies Well Quarry Licence Application”, dated 23/05/2019 1:31pm and authored by Preston Consulting	N/A	DWER records (A1791409)
4.	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	N/A	accessed at www.dwer.wa.gov.au
5.	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	N/A	
6.	DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	N/A	
7.	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	N/A	
8.	DER, June 2019. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	N/A	
9.	Email titled “RE: Bardies Well Quarry Licence Application”, dated 3/07/2019 12:15pm and authored by Preston Consulting	N/A	DWER records (A1802331)
10.	Email titled “RE: Bardies Well Quarry Licence Application”, dated 18/06/2019 8:34am and authored by	N/A	DWER records (A1800462)

	Preston Consulting		
11.	Email titled "MCS Bardies Well Quarry Works Approval W6188/2018/1 Completion report", dated 25/11/2019 10:32am and authored by Preston Consulting	N/A	DWER records (A1847309)
12.	Email titled "RE: APPLICANT NOTIFICATION - APPLICATION FOR A LICENCE L9207/2019/1 - DRAFT INSTRUMENT AND DECISION REPORT", dated 18/12/2019 11:08am and authored by Mobile Concreting Solutions Pty Ltd	N/A	DWER records (A1853008)

Appendix 2: Summary of applicant's comments on risk assessment and draft conditions

Section	Summary of Licence Holder comment	DWER response
Decision Report	Groundwater quality and depth will be monitored and provided in January 2020	Summarised in the Decision Report
Licence Premises Maps	Site Infrastructure Layout is shown in Figure 1	Figure 1 provided
Page 13 of the draft Licence	"Premises production or design capacity 350,000 tonnes per day". I think this should be changed to "350,000 tonnes per year"	Updated as requested

Attachment 1: Issued Licence L9207/2019/1
