



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Licensee:** Kimberley Quarry Pty Ltd

**Licence:** L9020/2016/1

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**Registered office:** 230 Barrington Street  
BIBRA LAKE WA 6163

**ACN:** 093 519 638

**Premises address:** Hardrock Quarry  
Lot 20 East Chapman Road  
NARRA TARRA 6532  
Being Part Lot 20 on Plan 6975

**Issue date:** 25 October 2017

**Commencement date:** 25 October 2017

**Expiry date:** 24 October 2037

### **Decision**

Based on the assessment detailed in this document the Department of Water and Environment Regulation (DWER) has decided to issue a licence. DWER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Rachel Vukmirovic  
Licensing Officer

Decision Document authorised by: Danielle Eyre  
Delegated Officer



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## 1 Purpose of this Document

This decision document explains how DWER has assessed and determined the application and provides a record of DWER’s decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DWER’s assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent’s responsibility to ensure they have all relevant approvals for their Premises.

## 2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	New Licence <input checked="" type="checkbox"/>
	Licence amendment <input type="checkbox"/>	Works Approval amendment <input type="checkbox"/>
Activities that cause the premises to become prescribed premises	<b>Category number(s)</b> 12	<b>Assessed production or design capacity</b> 200,000 tonnes per annual period
Application verified	Date: 01/12/2016	
Application fee paid	Date: 12/12/2016	
Works Approval has been complied with	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> N/A <input type="checkbox"/>
Compliance Certificate received	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> N/A <input type="checkbox"/>
Commercial-in-confidence claim	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
		Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
		Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>



into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?	Department of Water consulted Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.	
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, e.g. Site is subject to SO <sub>2</sub> requirements of Kwinana EPP.	

### 3 Executive summary of proposal and assessment

An application for a new concurrent works approval and licence was received by the Department of Environment Regulation (now DWER) on 8 November 2016. The application is to re-open a hard rock extraction operation at Lot 20 East Chapman Road, Narra Tarra. The hard rock quarry is located within the City of Greater Geraldton, approximately 15km north-east of the Geraldton town centre. Works Approval W6017/2016/1 was issued on 10 March 2017.

The site was formerly operated from 1960 to 2000. Kimberley Quarry Pty Ltd has an agreement with the landowner to conduct the operation (provided in the application supporting documentation).

The application proposes the use of mobile crushers and screens to process the resource at a nominated production capacity of 200,000 tonnes per annum, hence the premises is a prescribed premises for the purposes of Part V of the *Environmental Protection Act 1986* (EP Act) Category 12. Category 12: screening etc. of material is defined in the *Environmental Protection Regulations 1987* as premises on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.

Kimberley Quarry Pty Ltd (the applicant) has been operating since 2000 supplying products and services to the mining and construction industry. The main services it provides is quarrying, crushing and screening, drilling and blasting and equipment hire.

The application supporting documentation outlines that the proposal is to extract hard rock and process and stockpile materials within a work area of approximately 16 hectares (ha). The quarry pit area is approximately 7ha and the stockpile areas have a combined area of approximately 9 ha. The site is already cleared and further clearing is not required.

The site is zoned as rural within the Shire of Greater Geraldton Planning Scheme No. 1. Developmental approval for the extractive industry has been granted by the City of Greater Geraldton with a determination date of 5 January 2017 and is valid for a period of 12 months. Further renewal of the developmental approval is required annually.

The applicant also operates Nillibubbica Quarry located within the Shire of Broome which is the subject of licence L8647/2012/1. There is no history of prosecution or of any formal statutory compliance/enforcement notices issued under the EP Act by DWER to Kimberley Quarry Pty Ltd.

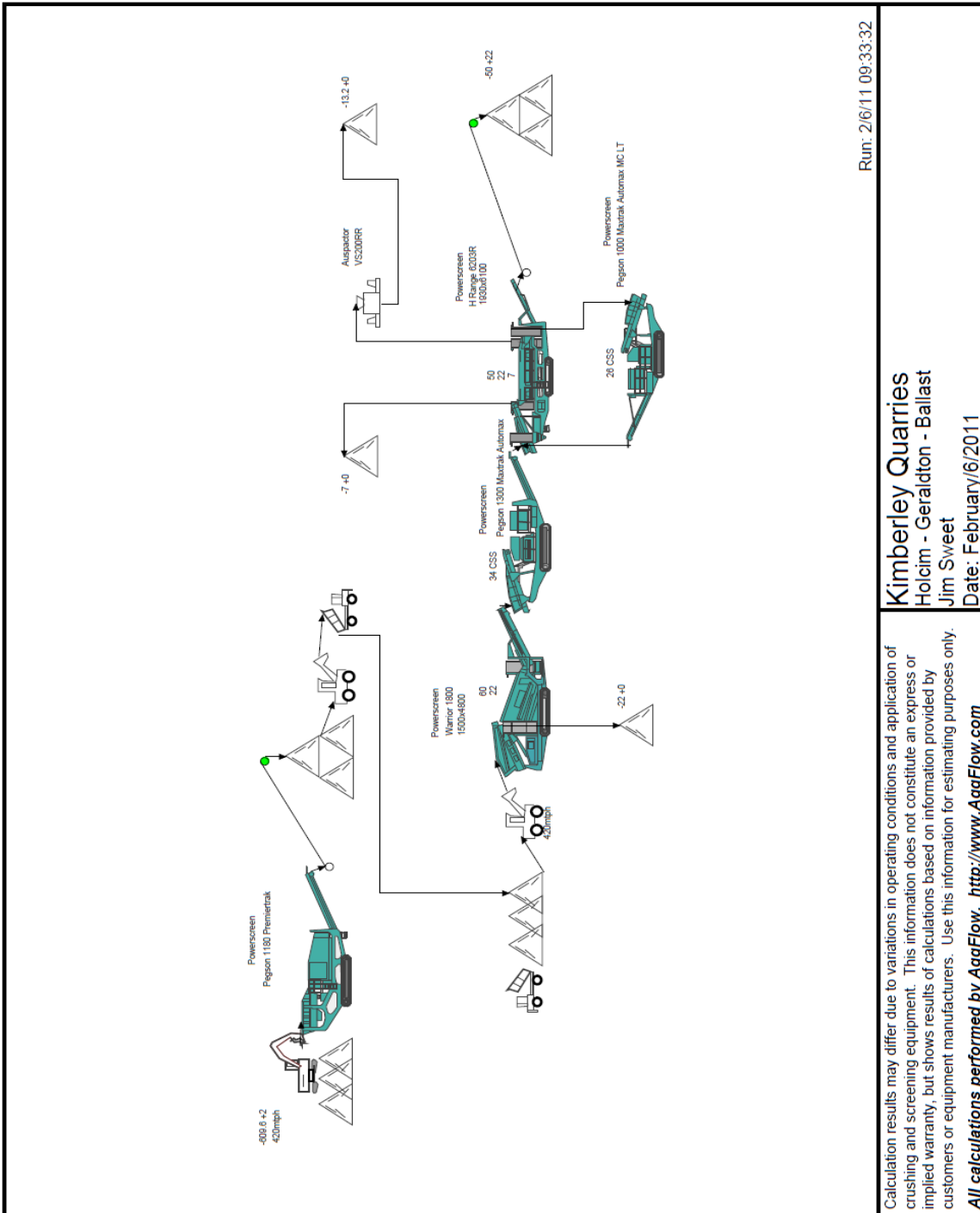
The application details that the surrounding land use to the north and west is rural land and the land to the "east and south is unsuitable for agriculture and is undulating and has remnant vegetation" (Kimberley Quarry Pty Ltd, October 2016).

#### Processing of resource

The mobile crushing and screening plant will consist of primary, secondary and tertiary crushers with associated screens and conveyors. A flow diagram of the proposed processing plant is depicted in figure 1 below.



Figure 1: Flow diagram of mobile crushing and screening plant



The location of the mobile plant, stockpile areas and other ancillary infrastructure is depicted in the site layout in Schedule 1 of the Licence.

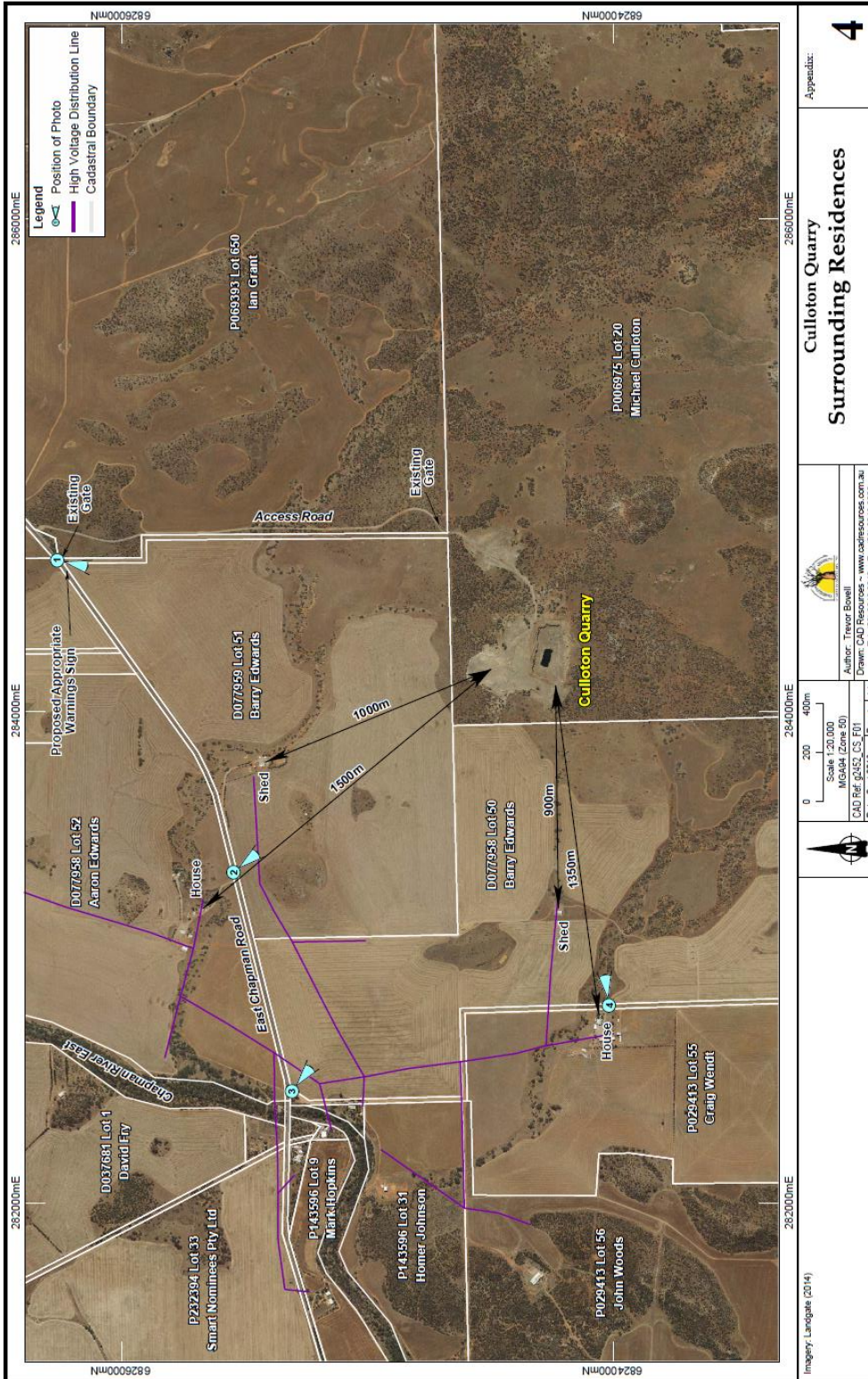
There are no sensitive residential receptors located within 1000m of the hard rock quarry, processing areas or stockpiles. The location of the sensitive receptors is depicted in the map of surrounding residences below.





### Map of surrounding residences

The location of surrounding residences is depicted in the map below. No residences are located within 1000m of the Premises.





There is no mains electricity available at the Premises and the office and workshop will be powered by a generator. Fuel storage is to consist of a 30,000 litre (30m<sup>3</sup>) self-bunded tank. The workshop area consists of a concrete floor which has a dome shelter. No major servicing will be conducted on site; only regular maintenance.

**Table 3: Environmental receptors and distance to prescribed activity**

Environmental receptors	Distance from Premises	Environmental Value
Groundwater <sup>1</sup>	Depth to groundwater on site has not been determined.  Water levels inferred to be between 50 to 100 metres Australian Height Datum.  Elevation at the operational areas is at least 140m therefore the depth to groundwater is assumed to be 40 metres below ground level (mbgl).	Not located within a Public Drinking Water Source Area.  Located within a <i>RIWI Act 1914</i> designated groundwater area.  Limited TDS data from bores approximately 3km away indicate TDS of 2000-5000 mg/L.
Minor non-perennial watercourses (tributaries of the Chapman River East) <sup>2</sup>	One located on the boundary of Stockpile Area 1 and another crosses the haul road near the entrance to Stockpile area 2.	Not located within a <i>RIWI Act 1914</i> designated surface water area.
Threatened/Priority Fauna and Flora	None within 3 km.	-

Note 1: HB1 Northern Perth Basin Bulletin Figure 58 states water levels south west of Northampton decrease to less than 50 mAHD. The site however is located closer to the 100 mAHD contour.

Note 2: The location of the minor non-perennial watercourses are depicted in the Premises map in Schedule 1 of the Licence.

**Summary of environmental conditions for the development approval from the City of Greater Geraldton (Approval No. TP16/187)**

Condition number	Condition
8	<i>No remnant vegetation shall be removed as part of this extraction operation</i>
9	<i>Hours of operation shall be limited to 07:00am to 18:00pm Monday to Saturday with no operations on Sundays or public holidays, unless otherwise approved in writing by the local government</i>
10	<i>The landowner/proponent from time to time is responsible to ensure that all installations, activities and processes associated with the development are carried out at all times and in all respects in accordance with the Noise Management Plan dated October 2016 as lodged with the local government</i>
13	<i>Prior to commencement of the development/land use, the landowner/proponent is responsible to ensure that a Management Plan is lodged with the local government for its approval and is approved by the local government, setting out in detail the management commitments applicable to the development including but not limited to: a) Screening to ensure that the extraction pit is screened from view from surrounding lots and adjacent road by the use of suitable trees and shrubs;</i>



	<p><i>b) Top soil to a depth of 150mm (unless otherwise approved in writing by the local government) is to be removed from the extraction area and is to be stored on-site for use in later rehabilitation;</i></p> <p><i>c) Drainage of the extraction pit including means of ensuring that no direct discharge occurs from the pit into a water course without the prior written approval of the Department of Environment; and</i></p> <p><i>d) Rehabilitation and re-contouring, per hectare basis including re-battering of banks and re-seeding and stabilising of extraction areas</i></p>
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Compliance documentation in accordance with works approval W6017/2016/1 was received on 17 October 2017 with further information provided on 18 October 2017.

Decision table 4 below applies a risk assessment to the potential emissions which may arise from the operation of the hard rock quarry. The key emissions identified from the application supporting documentation are noise, dust and contaminated stormwater. The table identifies whether these emissions present a material risk requiring regulatory controls.



## 4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DWER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L1.1.1-1.1.4	<p><b><u>Emission description</u></b>  <i>Emission:</i> Spills of hydrocarbons outside of containment systems or from workshop area.  <i>Impact:</i> Soil contamination, potential impacts to groundwater and surface water systems, impacting on ecosystems. The inferred depth to groundwater is at least 40 mbgl due to the elevation at the Premises.  <i>Controls:</i> 30m<sup>3</sup> of hydrocarbons will be stored in a self bunded tank. General maintenance will occur at a workshop onsite that is concrete lined and is sheltered. Major servicing is to occur off site. The fuel storage, generator and workshop area is located in Stockpile Area 2 which is more than 100m from any surface water systems. Stormwater is to be diverted around the workshop area.</p> <p><b><u>Risk Assessment</u></b>            Based on the low volumes of hydrocarbons stored on site and that major servicing will occur offsite, the Delegated Officer has determined the risk as follows:  <i>Consequence: Slight</i> – minimal on site impacts.  <i>Likelihood: Unlikely</i> – the risk event will probably not occur in most circumstances.  <i>Risk rating:</i> The Delegated Officer has compared the consequence and likelihood ratings described above through the Emissions Risk Matrix (Table 2) and determined that the overall rating of risk to be <b>low</b>.</p> <p><b><u>Regulatory controls</u></b>            No additional general conditions are required on the Licence for the storage and</p>	N/A.





DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		management of hydrocarbons.	
<b>Premises operation</b>	L1.2.1 L1.2.2	<p>Condition L1.2.1 has been included in the licence to set process limits for the authorised activities under the Licence. The applicant has a nominated throughput of 200,000 tonnes per annual period.</p> <p><u>Emission description</u> <i>Emission:</i> Discharge of sediment laden stormwater potentially contaminated with hydrocarbons to surface water systems during operation.</p> <p><i>Impact:</i> Impacts on surface water quality and ecosystem health. There are two minor non-perennial watercourses (tributaries of the Chapman River East) which also flow to the Chapman River (approximately 2km downstream from the site), located near to operational areas. The location of these watercourses in relation to operational areas is depicted in the Premises map in Schedule 1. The Chapman River is managed as part of the Chapman River Regional Wildlife Corridor Project delivered by the City of Greater Geraldton (Western Australian Government State Natural Resource (NRM) Program, 2017). The topography of Stockpile Area 1 slopes down to the north-east (towards the minor non-perennial watercourse). The topography of Stockpile Area 2 slopes down from the east to the west. The Quarry Pit Area is situated below ground level.</p> <p><i>Controls:</i> The application details that all water generated from precipitation will be directed to runoff settlement dams (unlined detention basins) to allow for the settlement of solids (reduced total suspended solids). Dams are to be sized to contain stormwater from a 1 in 10 year ARI, 2-hour duration rainfall event. Stockpile Area 1 will have a dam with a capacity of 1200 m<sup>3</sup>. Stockpile Area 2 will have a dam with a capacity of 840 m<sup>3</sup>. The applicant proposes the re-use of water on site. (Kimberley Quarry Pty Ltd, October 2016). Small volumes of 30 m<sup>3</sup> of hydrocarbons to be stored on site.</p>	<p>Application supporting documentation</p> <p>Western Australian Government State Natural Resource (NRM) Program 2017 accessed at <a href="http://www.nrm.wa.gov.au/projects/10021.aspx">http://www.nrm.wa.gov.au/projects/10021.aspx</a></p> <p>Water Quality Protection Note (WQPN) 15 <i>Extractive industries near sensitive water resources</i> Department of Water August 2013</p> <p>Works approval W6017/2016/1.</p> <p>Kimberley Quarry Pty Ltd <i>Mining Proposal – Hardrock Quarry Development Lot 20 East Chapman Road, Narra Tarra Shire of Greater Geraldton</i> (October</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><u>Risk Assessment</u> With the control of retaining stormwater from a 1 in10, 2-hour duration storm event and reducing the flow during a greater than 1 in 10 year ARI, 2-hour duration rainfall event, the Delegated Officer has determined the risk as follows: <i>Consequence: Minor</i> – low level off-site impacts. <i>Likelihood: Rare</i>, the risk event may only occur in exceptional circumstances. <i>Risk Rating:</i> The Delegated Officer has compared the consequence and likelihood ratings described above through the Emissions Risk Matrix (Table 2) and determined that the overall rating of risk to be <b>low</b>.</p> <p><u>Regulatory controls</u> Maintenance of the stormwater infrastructure that has been constructed in accordance with works approval W6017/2016/1 has been conditioned through licence L1.2.2. The determination of low risk is based on the Licensee controls.</p>	2016)
<b>Emissions general</b>	L – no conditions	There are no specified conditions relating to general emissions in this section.	N/A.
<b>Point source emissions to air including monitoring</b>	L – no conditions	Point source emissions to air are not expected during operation therefore no conditions relating to point source emissions to air are required in the Licence.	Application supporting documentation
<b>Point source emissions to surface water including monitoring</b>	L – no conditions	Point source emissions to surface water are not expected during operation therefore no conditions relating to point source emissions to surface water are required in the Licence.	Application supporting documentation
<b>Point source emissions to groundwater including monitoring</b>	L – no conditions	Point source emissions to groundwater are not expected during operation therefore no conditions relating to point source emissions to groundwater are required in the Licence.	Application supporting documentation



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
<b>Emissions to land including monitoring</b>	L – no conditions	Emissions to land are not expected during operation therefore no conditions relating to emissions to land are required in the Licence.	Application supporting documentation
<b>Fugitive emissions</b>	L – no conditions	<p><b>Operation</b></p> <p><u>Emission description</u>  <i>Emission:</i> Airborne dust generated during crushing and screening of target material (hard rock). Airborne dust generated from the movement, loading and unloading of product. Airborne dust generated from vehicle movement (approximately 8 trucks per day).</p> <p><i>Impact:</i> Amenity impacts may include visible dust plumes and nuisance dust deposition at residential premises. Public health effects may include potential acute effects such as asthma, and chronic effects such as reduced respiratory function. Dust can irritate the respiratory system and increase the frequency of asthma attacks. Those people with chronic respiratory problems may be affected (Department of Health website, accessed 01/02/2017).</p> <p>Dust can also smother and potentially suppress photosynthetic and respiratory functions of vegetation.</p> <p><i>Control:</i> The closest sensitive residential receptor is located more than 1300m from the Premises. There are no threatened or priority flora within 3 km of the Premises. The Licensee has committed that:</p> <ul style="list-style-type: none"> <li>• Crushing of material will be conducted in campaigns intermittently. Loading from stockpiles will occur throughout the year.</li> <li>• Crushing will be conducted during the winter months where possible where conditions are wet and more likely to minimize dust.</li> <li>• All crushers and screens will operate with “<i>reticulated mist sprays</i>” to minimize dust emissions.</li> <li>• Usage of a water tanker to spray access and haul roads.</li> <li>• Wetting down of stockpiles with a water cart.</li> </ul>	<p>Application supporting documentation</p> <p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p> <p>Kimberley Quarry Pty Ltd <i>Mining Proposal – Hardrock Quarry Development Lot 20 East Chapman Road, Narra Tarra Shire of Greater Geraldton</i> (October 2016)</p> <p>Department of Health, Western Australia website <i>Health effects of dust</i>. Accessed at <a href="http://healthywa.wa.gov.au/Articles/F_I/Health-">http://healthywa.wa.gov.au/Articles/F_I/Health-</a></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<ul style="list-style-type: none"> <li>Locating stockpiles behind bunds/windbreaks (Kimberley Quarry Pty Ltd, October 2016).</li> </ul> <p><u>Risk Assessment</u> Noting the distance to the nearest residential receptor (&gt;1300m), that no threatened or priority flora are within the vicinity of the Premises and the applicant's proposed controls, the Delegated Officer has determined the risk as follows: <i>Consequence: Minor</i> offsite impacts on a local scale <i>Likelihood: Rare</i>, may occur in exceptional circumstances <i>Risk rating:</i> The Delegated Officer has compared the consequence and likelihood rating and has determined the overall rating as <b>low</b>.</p> <p><u>Regulatory Controls</u> No regulatory controls are required on the Licence in relation to fugitive dust emissions. The general provisions of the <i>Environmental Protection Act 1986</i> and the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> apply.</p>	<a href="#">effects-of-dust</a>
<b>Odour</b>	L – no conditions	Odour is not expected during operation therefore no conditions relating to odour are required in the Licence.	Application supporting documentation
<b>Noise</b>	L – no conditions	The closest sensitive residential receptor is located more than 1300m from the Premises. The Delegated Officer considers that noise should be managed to comply with the <i>Environmental Protection (Noise) Regulations 1997</i> . In addition, the general provisions of the <i>Environmental Protection Act 1986</i> apply.	Application supporting documentation  <i>Environmental Protection (Noise) Regulations 1997</i>  <i>Environmental Protection Act 1986</i>



<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Monitoring general</b>	L – no conditions	Monitoring is not required during operation therefore no specified conditions relating to general monitoring are required in the Licence.	N/A.
<b>Monitoring of inputs and outputs</b>	L – no conditions	Monitoring of inputs and outputs is not a requirement of the Licence.	N/A.
<b>Process monitoring</b>	L – no conditions	Process monitoring is not a requirement of the Licence.	N/A.
<b>Ambient quality monitoring</b>	L – no conditions	Ambient quality monitoring is not a requirement of the Licence.	N/A.
<b>Meteorological monitoring</b>	L – no conditions	Meteorological monitoring is not a requirement of the Licence.	N/A.
<b>Improvements</b>	L – no conditions	No improvement conditions are required in the Licence.	N/A.
<b>Information</b>	L2.1.1-2.1.2 2.2.1	No additional conditions are required in the Licence other than the requirement to submit an Annual Audit Compliance Report, implementation of a complaints management system and the notification requirements.	<i>Environmental Protection Act 1986</i>
<b>Licence Duration</b>	N/A.	The Guidance Statement: Land Use Planning (August 2016) states that the CEO's delegate will have regard to providing the maximum appropriate term, up to 20 years, taking account of the duration of other statutory approvals and the level of risk. The Delegated Officer notes that development approval from the City of Geraldton expires on 5 January 2017 but has determined that the Licence will have a 20 years' duration. This is based on the low risk posed to receptors and that condition 11 of the development approval outlines the renewal requirements.	Application supporting documentation  City of Greater Geraldton <i>Notice on determination on application for development approval</i> (Approval no. TP16/187) dated 5 January 2017





<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L = Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
			Guidance Statement: <i>Land Use Planning</i> (August 2016)  Works approval W6017/2016/1



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
19/12/2016	Application advertised in West Australian (or other relevant newspaper)	Nil comments received	-
25/01/2017 and 31/01/2017	Application referred to interested parties listed <ul style="list-style-type: none"><li>• City of Greater Geraldton</li><li>• Department of Water (DoW)</li></ul>	<ul style="list-style-type: none"><li>• Email response from the City of Greater Geraldton providing support for the proposal. Further email received providing a copy of the development approval.</li><li>• DoW response received 28 February 2017 confirming that DoW has no objections to the proposal and that the level of risk posed to groundwater and surface water from the activity is low.</li></ul>	-
7/03/2017	Proponent sent a copy of draft instrument	Comments received on 9 March 2017 confirming no changes required. Further email received 10 March 2017 confirming the correct production capacity is 200,000 tonnes per annum as per the application form.	Production capacity corrected to 200,000 tonnes per annum



## 6 Risk Assessment

*Note: This matrix is taken from the Guidance Statement: Risk Assessments (February 2017)*

**Table 1: Emissions Risk Matrix**

Likelihood	Consequence				
	Slight	Minor	Moderate	Major	Severe
Almost Certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Medium	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High