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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER'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	Category number(s)	Assessed design capacity
	12: Screening, etc. of material	120,000 tpa
Application verified	Date: 17/07/2014	
Application fee paid	Date: 14/08/2014	
Works Approval has been complied with	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Compliance Certificate received	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Commercial-in-confidence claim	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Commercial-in-confidence claim outcome		
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 into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
The Premises adjoins Lake Preston, being a lake subject to the provisions of the <i>Environmental Protection (Swan Coastal Plain Lakes) Policy 1992</i> .		
Is the Premises subject to any EPP requirements? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
The EPP (Swan Coastal Plain Lakes) prohibits the unauthorised mining, filling, draining or effluent discharge into these lakes.		



3 Executive summary of proposal and assessment

The Myalup quarry is a limestone quarry located near Myalup, approximately 40 km north of Bunbury. The quarry has been active since the early 1990s, supplying agricultural lime and road base to local industry, although B. & J. Catalano (Catalano) have only been operating the quarry since 2009.

The quarry site is located on freehold land adjoining Lake Preston, a listed wetland of international importance. The nearest receptor is located within the premises boundary, approximately 400 m west of the active pit, and is used as holiday accommodation by the landowner. The landowner also operates a cattle feedlot adjacent to the quarry, with the feedlot office/shed located approximately 600 m east of the quarry. The Forrest Highway is located approximately 2 km east of the quarry.

Limestone material is extracted from the ground by front-end loader and bulldozer and stockpiled within the active cell. A mobile crushing and screening plant is brought on site to process stockpiled material for approximately 6 weeks per year, where a nominal throughput of up to 55,000 m³ is processed (converts to approximately 143,000 tonnes where 1 m³ (uncrushed) = 2.6 tonne of material).

The principle environmental risks associated with the crushing and screening operation are fugitive dust and noise emissions and the contamination of stormwater. DER is unaware of any complaints from existing operations at this location. Catalano is aware of its obligation to comply with the *Environmental Protection (Noise) Regulations 1997* and the general provisions of the Act during operations.

The extraction area and timeframe is regulated by the Shire of Harvey under planning consent and an extractive industries licence (EIL), which recently expired on 30 March 2015. The Shire issued a 5 year extension on 23 June 2015 within the current approved area.

This is a new licence issued to Catalano following the previous licence ceasing to have effect, pursuant to Regulation 5DA(5) of the *Environmental Protection Regulations 1987*. The licence has been issued to expire consistent with the planning consent.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER'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	L – no conditions	<p>Normal operation There are no specified conditions relating to general requirements for normal operating conditions.</p> <p>Abnormal operation <u>Emission Description</u> <i>Emission:</i> Contamination of stormwater with hydrocarbons, dissolved and suspended solids from operational areas. <i>Impact:</i> The discharge of contaminated stormwater into the environment can result in a reduction of fresh groundwater quality and surface water quality. The type of contaminant and dilution with clean stormwater will influence the level of impact on the receiving environment. Uncontrolled runoff of contaminated stormwater can impact on the values of Lake Preston, which forms part of a Ramsar wetland site. <i>Controls:</i> Nil. Any stormwater falling within the mine area is expected to quickly infiltrate due to the high permeability of the ground materials. The depression created by extraction is expected to protect Lake Preston and associated vegetation runoff and sediments that may be generated during high frequency rainfall events.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor. <i>Likelihood:</i> Unlikely. <i>Risk Rating:</i> Moderate.</p> <p><u>Regulatory Controls</u> No conditions are required on the licence.</p> <p><u>Residual Risk</u></p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<i>Consequence</i> : Minor. <i>Likelihood</i> : Unlikely. <i>Risk Rating</i> : Moderate.	
Premises operation	L – no conditions	There are no specified conditions relating to premises operational requirements in this section.	
Emissions general	L2.2.1	Descriptive limits have been set through conditions of the licence and therefore conditions regarding recording and investigation of exceedances of limits has been included.	
Point source emissions to air including monitoring	L – no conditions	There are no point source emissions to air proposed in the application.	
Point source emissions to surface water including monitoring	L – no conditions	There are no point source emissions to surface water proposed in the application.	
Point source emissions to groundwater including monitoring	L – no conditions	There are no point source emissions to groundwater proposed in the application.	
Emissions to land including monitoring	L – no conditions	There are no emissions to land proposed in the application.	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Fugitive emissions	L2.2.1	<p>Normal & abnormal operation</p> <p><u>Emission Description</u> <i>Emission:</i> Fugitive dust at unknown concentration, generated during crushing and screening operations. <i>Impact:</i> Dust emissions can be harmful to human health and the environment. Elevated TSP levels can impact ambient environmental quality resulting in amenity impacts and can smother vegetation. PM₁₀ or PM_{2.5} can be drawn deep into the lungs causing human health impacts. The chemical and physical properties of the particles, the size of the particles and the duration of exposure are all factor which may affect human health impacts. There are two receptors within 600m of the active pit and a major highway within 2km. The quarry is located in proximity to the coast with prevailing winds during the summer months from the south-west. <i>Controls:</i> Visual inspection of site and access roads for dust generation that is moving off site. Water cart application over dust prone areas to reduce dust lift-off. Crushing and stockpiling activities located in topographic low points with stockpiles arranged such that wind breaks are created to further shield sensitive receptors.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate. <i>Likelihood:</i> Possible. <i>Risk Rating:</i> Moderate.</p> <p><u>Regulatory Controls</u> The risk of fugitive dust emissions from crushing and screening operations causing amenity impacts and smothering vegetation is deemed to be moderate in consideration of the distance to receptors. As such, conditions will be added to the licence to require dust control in accordance with the Environmental Management Plan and specify a limit for TSP of 260 µg/m³ (24 hour average) at the boundary. This limit is based on the Area B standard under the <i>Kwinana Environmental Protection (Kwinana)(Atmospheric Wastes) Policy 1999</i> (Kwinana EPP), which is considered by DER to be an appropriate standard for ambient air quality at all basic raw material quarries in proximity to receptors. Monitoring of fugitive dust is addressed in the Ambient Environmental Quality Monitoring section.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Moderate. <i>Likelihood:</i> Unlikely. <i>Risk Rating:</i> Moderate.</p>	Kwinana EPP
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DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Odour	L – no conditions	Odour is not expected from the crushing and screening operations.	
Noise	L – no conditions	<p>Normal & abnormal operation</p> <p><u>Emission Description</u> <i>Emission:</i> Noise from mobile machinery (front-end loaders, bulldozers) and fixed plant during crushing and screening operations. <i>Impact:</i> Noise emissions can cause nuisance and a reduced quality of life and health for human populations, particularly when the source is located near sensitive receptors. Noise can affect the psychological status of human population nearby in terms of emotional stress, anger and physical symptoms. Frequency, intensity, duration, meteorological conditions and distance to receptor are all factors which may affect the impact of noise emissions on sensitive receptors. <i>Controls:</i> Minimising crushing and screening operations to a 6-week campaign per year and operating during normal working (i.e. daylight) hours only.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate. <i>Likelihood:</i> Possible. <i>Risk Rating:</i> Moderate.</p> <p><u>Regulatory Controls</u> The risk of noise emissions from crushing and screening operations causing amenity impacts is deemed to be moderate in consideration of the distance to receptors. The proponent has a legislative requirement to comply with the assigned noise levels at all times as set in the Noise Regulations.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate. <i>Likelihood:</i> Possible. <i>Risk Rating:</i> Moderate.</p>	<i>Environmental Protection (Noise) Regulations 1997 (Noise Regulations)</i>
Monitoring general	L3.1.1 – 3.1.4	No additional general monitoring conditions are required on the licence other than the standard NATA accreditation, monitoring timeframes and calibration requirements.	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Monitoring of inputs and outputs	L – no conditions	Monitoring of inputs and outputs is not required to adequately manage emissions during crushing and screening operations. No specified conditions relating to process monitoring are required to be added to the licence.	
Process monitoring	L – no conditions	Process monitoring is not required to adequately manage emissions during crushing and screening operations. No specified conditions relating to process monitoring are required to be added to the licence.	
Ambient quality monitoring	L3.2.1	Monitoring of ambient air quality (dust levels) is required to provide assurance over the effectiveness of site dust management and demonstrate performance against the limit set at the boundary. Continuous monitoring using dust deposition gauges at either end of the quarry during the summer (drier) months will provide data to validate assessment predictions.	
Meteorological monitoring	L – no conditions	Monitoring of meteorological conditions is not required.	
Improvements	L – no conditions	No improvements are required.	
Information	L – no additional conditions	No additional reporting conditions are required on the licence other than the minimum record keeping, annual reporting and notification requirements.	
Licence Duration	N/A	This new licence will be issued for 4 years and 10 months, consistent with the planning consent for the extraction activity on the premises (expiry 16 June 2020).	



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
25/08/2014	Application advertised in the West Australian newspaper	Nil.	N/A.
15/09/2014	Advice letter sent to Shire of Harvey	No response received.	N/A.
17/04/2015	Shire of Harvey send a copy of draft instrument	No response received.	N/A.
17/04/2015	Proponent sent a copy of draft instrument	Minor changes. Lot 2 requested to be added, as the EIL covers this area.	Lot 2 added to the prescribed premises.
12/08/2015	Proponent sent a copy of updated draft instrument	Applicant queried the reason for dust monitoring conditions.	Grounds for including dust monitoring were explained to the applicant.



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

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