



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:** North West Quarries Pty Ltd

**Licence:** L8778/2013/1

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**Registered office:** 8 Ambitious Link  
BIBRA LAKE WA 6163

**ACN:** 136 680 450

**Premises address:** Pippingarra Quarry Site  
Tenement M45/258, G45/329, G45/330, G45/47, G45/48, G45/52, G45/53,  
G45/54, G45/56, G45/58, G45/59, G45/60, G45/61  
PIPPINGARRA WA 6722

**Issue date:** Thursday, 10 October 2013

**Commencement date:** Monday, 14 October 2013

**Expiry date:** Saturday, 13 October 2018

### Decision

Based on the assessment detailed in this document, the Department of Environment Regulation (DER) has decided to issue a licence. DER 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: Teresa Wilkie  
Regional Environmental Officer

Decision Document authorised by: Alana Kidd  
Regional Leader



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## 1 Purpose of this Document

This decision document explains how DER has assessed and determined the application for a works approval or licence, 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.

### Works approval and licence conditions

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

#### Standard conditions (SC)

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

#### Optional standard conditions (OSC)

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary, and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions are justified in Section 4 of this document.

#### Non standard conditions (NSC)

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in Section 4.



## 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>Design capacity</b> 500 000 tonnes per annual period
Application verified	Date: 12 August 2013
Application fee paid	Date: 16 August 2013
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	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 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 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, eg Site is subject to SO <sub>2</sub> requirements of Kwinana EPP.	



### 3 Executive summary of proposal

North West Quarries Pty Ltd (NWQ) hold leases at the Pippingarra Quarry site which is located 24.5 kilometres (km) south east of South Hedland. The quarry is situated 16.5 km off the Great Northern Highway along the Pippingarra-Wittenoom Road. The site has a capacity to process up to 500 000 tonnes of material per annum with an expected throughput of up to 200 000 tonnes per annum.

The quarry site has been mined since 1911 with the previous owners leaving the quarry in 2005. NWQ began to develop the quarry site again in 2008. Up until February 2013 NWQ undertook the reprocessing of the waste stockpiles left by the previous operators at the site. The Department of Mines and Petroleum approved a mining proposal for the site in January 2013.

The site includes a borrow pit, which produces 'high plasticity natural gravel' and a granite quarry, which produces blue rock material or granite for production of aggregates, rail ballast and rock armour products. There is no waste product as all rock processed from both the borrow pit and the granite quarry is sold as product.

Processing at the borrow pit is undertaken using a mobile screening plant capable of producing three different sized products. The granite quarry is drilled and blasted and the rock is passed through a 600mm screen. Mobile crushers are then used to reduce the rock to various sizes of aggregate product depending upon customers' needs. Material from both borrow pit and quarry are also blended together to make the required products for sale. All products are stockpiled on site in the designated stockyard.

The old quarry area consists of waste stockpiles from the former quarry operations. NWQ have been reprocessing these stockpiles to produce construction products for local construction and mining projects. NWQ expect to achieve 100 percent reclamation of the waste stockpiles at the site.

Water for dust suppression activities is sourced on site from rainwater in the historic feldspar pit. The pit catches natural rainfall, however, does not capture runoff due to the bund that runs around its perimeter. Groundwater at the site is approximately 65 metres (m) below ground level and dewatering is not required with the anticipated depth of mining being 25 m.

There are no permanent natural surface water bodies within the premises boundary. A minor drainage line runs north south adjacent to the western boundary of mining leave M45/258. This drainage line follows the boundary and is not impacted by operations at the site.

A 55 person temporary camp exists on the site and currently operates at maximum occupancy with shared ablution facilities. Portable toilet facilities are currently used on site with waste removed by licensed contractor for disposal at a licensed facility.

The most significant emissions from the site are dust and noise from the quarrying, crushing and screening operations.

The site has been operating without the required Part V *Environmental Protection Act 1986* licence and following a site inspection by DER officers in June 2013, NWQ were directed to apply for a licence to operate the facility.



## 4 Decision table

All applications are assessed under the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, *DER's Policy Statement - Limits and targets for prescribed premises* (2006) and the risk matrix attached to this decision document in Appendix A. Where other references have been used in making the decision they are detailed in the decision table.

DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
	L1.2.3; L1.2.5	OSC	<p><b>Operation</b>  <i>Emission Significance - 1</i>  <i>Socio-political context - No concern or interest</i>  <i>Risk Assessment - D – licence conditions</i></p> <p>The site will store up to 40 000L of diesel and smaller amounts of oils and grease. All hydrocarbons are stored in accordance with Code of Practice for the Storage and handling of Dangerous Goods. The following measures have been implemented to ensure no contaminated water is discharged to the environment:</p> <ul style="list-style-type: none"> <li>• Storage of hydrocarbons and chemical in designated areas only;</li> <li>• Equipment maintenance is conducted in workshop area;</li> <li>• The use of containment drip trays for stationary engines where risk assessment have determined to represent a pollutant risk;</li> <li>• All site vehicles used to transport hydrocarbons and chemical are fitted with spill containment facilities and have spill response equipment;</li> <li>• Spill kits are provided in all areas where hydrocarbons and chemicals are handled;</li> <li>• Potentially contaminated water from the workshop and refuelling area is contained within bunds for removal from site by a licensed contractor to a licensed facility.</li> </ul>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Code of Practice for the Storage and handling of Dangerous Goods, Department of Mines and Petroleum, Government of Western Australia.</p> <p>Application supporting documentation.</p>
<b>General conditions</b>				



**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<ul style="list-style-type: none"> <li>All water from the designated vehicle wash down facility is captured for removal from site by a licensed contractor to a licensed facility; and</li> <li>Contaminated soils are temporarily stored in a lined bunded area prior to removal by a licensed contractor to a licensed facility.</li> </ul> <p>Stormwater from the process area is directed to a settlement pond and evaporates.</p> <p>Conditions relating to hydrocarbon and chemical storage and stormwater management have been included in the licence.</p>	
Emissions general	L2.1.1	OSC	<p>Descriptive limits have been set through condition 2.6 of the licence and therefore OSC regarding recording and investigation of exceedances of limits or targets has been included.</p> <p><b>Operation and Construction</b>  <i>Emission Significance - 1</i>  <i>Socio-political context - No concern or interest</i>  <i>Risk Assessment - E – no regulation</i></p> <p>No significant point source air emissions are generated from operations at the quarry. No specified conditions relating to point source emissions to air or the monitoring of these emissions are included in the licence.</p>	N/A
Point source emissions to air including monitoring	L2.2 and L3	N/A		<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Environmental Protection (Unauthorised Discharges) Regulations 2004.</p> <p>Application supporting documentation.</p>
Point source emissions to surface water including	L2.3 and L3	N/A	<p><b>Operation</b>  <i>Emission Significance – 1</i>  <i>Socio-political context – No concern or interest</i>  <i>Risk Assessment – E –no regulation, other management</i></p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p>



**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
monitoring			mechanisms  There will be no point source emissions to water during operations at the quarry. There are no surface water bodies within the premises with the nearest waterway being Beeingarra River, located 6.8 km from the site. No specified conditions relating to point source emissions to water or the monitoring of such emissions have been included in the licence.	Environmental Protection (Unauthorised Discharges) Regulations 2004.  Application supporting documentation.
Emissions to land including monitoring	L2.5 and L3	N/A	<b>Operation</b> <i>Emission Significance – 1</i> <i>Socio-political context – No concern or interest</i> <i>Risk Assessment – E – no regulation, other management mechanisms</i>  There are no direct discharges to land associated with operation of the quarry. No specified conditions relating to point source emissions to land or the monitoring of such emissions have been included in the licence.	General provisions of the <i>Environmental Protection Act 1986</i> .  Environmental Protection (Unauthorised Discharges) Regulations 2004.  Application supporting documentation.
Point source emissions to groundwater including monitoring	L2.4 and L3	N/A	<b>Operation</b> <i>Emission Significance – 1</i> <i>Socio-political context – No concern or interest</i> <i>Risk Assessment – E – no regulation, other management mechanisms</i>  There are no direct discharges to groundwater associated with operation of the quarry. Groundwater at the site is approximately 65 m below ground level and with the anticipated depth of mining being 25 m, groundwater is not expected to be impacted by operations at the site. No specified conditions relating to point	General provisions of the <i>Environmental Protection Act 1986</i> .  Environmental Protection (Unauthorised Discharges) Regulations 2004.  Application supporting



**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
<b>Fugitive emissions</b>	2.6	OSC	<p>source emissions to groundwater or the monitoring of such emissions have been included in the licence.</p> <p><b>Operation</b>  <i>Emission Significance – 1</i>  <i>Socio-political context – No concern or interest</i>  <i>Risk Assessment – E – no regulation, other management mechanisms</i></p> <p>Dust is generated during operations of the crushing and screening equipment and the blasting and drilling at the quarry. The following measures have been implemented at the site to minimise emissions:</p> <ul style="list-style-type: none"> <li>• Water sprays, drift fencing and inspections on short term stockpiles (less than three months);</li> <li>• Cease activities if they are found to be generating excessive dust until effective control measures are implemented;</li> <li>• Restrict traffic to defined areas and speed limits;</li> <li>• Spray each truck load prior to entering or leaving the site;</li> <li>• Use water carts or water sprays on disturbed areas;</li> <li>• Cover unsealed roads with road base rock and gravel and keep moist;</li> <li>• Use of water sprays during screening operations;</li> <li>• Maintain all dust control equipment in good working conditions and operable at all times;</li> <li>• Progressive vegetation, bitumen emulsions and inspections on long term stockpiles (greater than 3 months);</li> <li>• Meteorological conditions assessed as part of the blast management plan; and</li> <li>• Revegetation of disturbed and exposed areas as soon as possible.</li> </ul>	documentation.  General provisions of the <i>Environmental Protection Act 1986</i> .  Application supporting documentation.





**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			OSC relating to dust emissions have been included on the licence.  No significant light emissions are generated from the operation of the quarry. The quarry is currently operated during day light hours. If night shift work is required lighting towers are used to ensure personnel visibility and safety. There towers are erected within operations area and directed away from areas of native vegetation. No conditions relating to light have been included in the licence.	
<b>Odour</b>	L2.7	N/A	<b>Operation</b> <i>Emission Significance – 1</i> <i>Socio-political context – No concern or interest</i> <i>Risk Assessment – E – no regulation, other management mechanisms</i>  There are no odour emissions generated during operation at the quarry. No conditions relating to odour have been included in the licence.	General provisions of the <i>Environmental Protection Act 1986</i> .  Application supporting documentation.
<b>Noise</b>	L2.8	N/A	<b>Operation</b> <i>Emission Significance – 1</i> <i>Socio-political context – No concern or interest</i> <i>Risk Assessment – E – no regulation, other management mechanisms</i>  The operation of the crushing and screen plant and the quarrying operation will generate noise from the site. The nearest sensitive receptor is South Hedland 24.5 km from the quarry. The site complies with Environmental Protection (Noise) Regulation 1997.  No specified conditions relating to noise have been included in the licence.	General provisions of the <i>Environmental Protection Act 1986</i> .  Application supporting documentation.  <i>Environmental Protection (Noise) Regulation 1997</i>



**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Monitoring general	L3	N/A	There are no specific conditions relating to the sampling and monitoring potentials emissions included in the licence. <b>Operation</b> <i>Emission Significance – 1</i> <i>Socio-political context – No concern or interest</i> <i>Risk Assessment – E – no regulation, other management mechanisms</i>	N/A
Monitoring of inputs and outputs	L3	N/A	The inputs into the plant are rock material which is crushed and screened to the required size. Potential emissions from the site are dust and noise and are not dependent on monitoring inputs. No conditions relating to monitoring of inputs have been included in the licence.	Application supporting documentation.
Process monitoring	L3	N/A	<b>Operation</b> <i>Emission Significance – 1</i> <i>Socio-political context – No concern or interest</i> <i>Risk Assessment – E – no regulation, other management mechanisms</i>  The inputs into the plant are rock material which will be crushed and screened to the required size. No further processing is undertaken at the site. No conditions relating to process monitoring have been included in the licence.	Application supporting documentation.
Ambient quality monitoring	L3	N/A	<b>Operation</b> <i>Emission Significance – 1</i> <i>Socio-political context – No concern or interest</i> <i>Risk Assessment – E – no regulation, other management mechanisms</i>	Application supporting documentation.



**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			Potential emissions from the site include dust and noise from the operation of the crushing and screening plant, however, these are not expected to be significant. No specified conditions will be included in this section.	
<b>Meteorological monitoring</b>	L3	N/A	<p><b>Operation</b>  <i>Emission Significance – 1</i>  <i>Socio-political context – No concern or interest</i>  <i>Risk Assessment – E – no regulation, other management mechanisms</i></p> <p>Potential emissions from the site include dust and noise from the operation of the crushing and screening plant, however, these are not expected to be significant. No specified conditions have been included in this section.</p>	Application supporting documentation.
<b>Improvements</b>	L4	N/A	There are no specified conditions included in this section.	N/A
<b>Information</b>	L5	N/A	No specified conditions, additional to the standard conditions, have been included in this section.	N/A



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
26/8/2013	Application advertised in West Australian (or other relevant newspaper)	No comments received.	N/A
17/09/2013	Proponent sent a copy of draft instrument	Proponent had no comments.	N/A



## 6 Emissions and discharges risk assessment matrix

Note: These matrix are taken from the DEC Officer's Guide to Emissions and Discharges Risk Assessment (2006).

### Measures of Significance of Emissions

Emissions as a percentage of the relevant emission or ambient standard		Worst Case Operating Conditions (95 <sup>th</sup> Percentile)			
		>100%	50 – 100%	20 – 50%	<20%*
Normal Operating Conditions (50 <sup>th</sup> Percentile)	>100%	5	N/A	N/A	N/A
	50 – 100%	4	3	N/A	N/A
	20 – 50%	4	3	2	N/A
	<20%*	3	3	2	1

\*For reliable technology, this figure could increase to 30%

### Socio-Political Context of Each Regulated Emission

		Relative proximity of the interested party with regards to the emission				
		Immediately Adjacent	Adjacent	Nearby	Distant	Isolated
Level of Community Interest or Concern*	5	High	High	Medium High	Medium	Low
	4	High	High	Medium High	Medium	Low
	3	Medium High	Medium High	Medium	Low	No
	2	Low	Low	Low	Low	No
	1	No	No	No	No	No

Note: These examples are not exclusive and professional judgement is needed to evaluate each specific case

\*This is determined by DER using the *Officer's Guide to Emissions and Discharges Risk Assessment* (2006).

### Emissions Risk Reduction Matrix

		Significance of Emissions				
		5	4	3	2	1
Socio-Political Context	High	A	A	B	C	D
	Medium High	A	A	B	C	D
	Medium	A	B	B	D	E
	Low	A	B	C	D	E
	No	B	C	D	E	E

#### PRIORITY MATRIX ACTION DESCRIPTORS

A = Do not allow (fix)

B = licence condition (setting limits + EMPs - short timeframes)(setting targets optional)

C = licence condition (setting targets + EMPs - longer timeframes)

D= EIPs, other management mechanisms/licence conditions (monitoring/reporting)/other regulatory tools

E = No regulation, other management mechanisms

