



Works Approval

Environmental Protection Act 1986, Part V

Works Approval Holder: **Whitestone Quarries W.A. Pty Ltd**

Works Approval Number: **W5849/2015/1**

Registered office: Lot 5 Midlands Rd
CARNAMAH WA 6517

ACN: 151 434 883

Premises address: Portion of Avon Location 15112 (Volume 508, Folio 64A), Luckman Road,
WELBUNGIN WA
As depicted in Schedule 1.

Issue date: Thursday, 9 July 2015

Commencement date: Monday, 13 July 2015

Expiry date: Sunday, 12 July 2020

The following category/s from the *Environmental Protection Regulations 1987* cause this Premises to be a prescribed premises for the purposes of the *Environmental Protection Act 1986*:

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
70	Screening etc. of material: premises on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	More than 5 000 tonnes but less than 50 000 tonnes per year	10 000 tonnes per annual period

Conditions

This Works Approval is subject to the conditions set out in the attached pages.

.....
Officer delegated under section 20
of the *Environmental Protection Act 1986*



Works Approval Conditions

1 General

1.1 Interpretation

1.1.1 In the Works Approval, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 In the Works Approval, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986*;

'annual period' means the inclusive period from 1 April until 31 March in the following year;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;
Manager Licensing, Resources South
Department of Environment Regulation
Locked Bag 33
CLOISTERS SQUARE WA 6850
Telephone: (08) 9333 7510
Facsimile: (08) 9333 7550
Email: industry.regulation@der.wa.gov.au;

'code of practice for the storage and handling of dangerous goods' means document titled "Storage and handling of dangerous goods: Code of Practice" published by the Department of Mines and Petroleum, as amended from time to time;

'dangerous goods' has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;

'environmentally hazardous material' means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Works Approval;

'Schedule 1' means Schedule 1 of this Works Approval unless otherwise stated;

'Works Approval' means this Works Approval numbered W5849/2015/1 and issued under the *Act*;

'Works Approval Holder' means the person or organisation named as the Works Approval Holder on page 1 of the Works Approval;

1.1.3 Any reference to an Australian or other standard in the Works Approval means the relevant parts of the standard in force from time to time during the term of this Works Approval.



1.1.4 Any reference to a guideline or code of practice in the Works Approval means the current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guidelines or code of practice made during the term of this Works Approval.

1.2 General conditions

1.2.1 The Works Approval Holder shall construct the works in accordance with the documentation detailed in Table 1.2.1:

Table 1.2.1: Construction Requirements¹		
Document	Parts	Date of Document
Whitestone Quarries' works approval application 'Site plans and assessments.pdf' and supporting documents: <ul style="list-style-type: none"> • Shire of Mt Marshall Minutes of Meeting on 19 August 2014; • Agreement between Sachse Farming Pty Ltd and Whitestone Quarries Pty Ltd dated 22 February 2014; • 'Current land use.pdf' • 'Rainfall for Bencubbin.pdf' • 'Nearest dwelling.png' • 'Water flow diagram for DER.png' • 'site plan.png' • 'Birds eye view 3.png' 	All	22 March 2015
Email sent 12/3/15 from A Chisholm to DER	All	12 March 2015
Email sent 14/5/15 from A Chisholm to DER	All	14 May 2015
Email sent 26/6/15 from A Chisholm to DER	All	26 June 2015

Note 1: Where the details and commitments of the documents listed in condition 1.2.1 are inconsistent with any other condition of this works approval, the conditions of this works approval shall prevail.

1.2.2 The Works Approval Holder, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.

1.2.3 The Licensee shall:

- (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
- (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.¹

Note1: *The Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

1.3 Premises operation

There are no specified conditions relating to Premises operation in this section.



2 Emissions

2.1 General

2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 2 of this Licence.

2.2 Fugitive emissions

2.2.1 The Licensee shall use all reasonable and practical measures to prevent and where that is not practicable to minimise dust emissions from the Premises.

3 Monitoring

There are no specified conditions relating to monitoring in this section.

4 Improvements

There are no specified conditions relating to improvements in this section.

5 Information

5.1 Reporting

5.1.1 The Works Approval Holder shall submit a compliance document to the CEO, following the construction of the works and prior to commissioning of the same.

5.1.2 The compliance document shall:

- (a) certify that the works were constructed in accordance with the conditions of the works approval;
- (b) be signed by a person authorised to represent the Works Approval Holder and contain the printed name and position of that person within the company.



Schedule 1: Maps

Premises map

The Premises is shown in the map below, a polygon with four fixed points (GPS coordinates as shown). The red line depicts the Premises boundary.





Decision Document

Environmental Protection Act 1986, Part V

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Decision

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

Decision Document prepared by: Louise Lavery
Senior Licensing Officer

Decision Document authorised by: Danielle Eyre
Senior Manager, Resource Industries



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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.

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 is 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 checked="" type="checkbox"/>	New Licence <input 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
	70	10 000 tonnes per annual period
Application verified	Date: 2 June 2015	
Application fee paid	Date: 5 June 2015	
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"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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"/>
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 ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal and assessment

Whitestone Quarries W.A. Pty Ltd (Whitestone) proposes to establish a quarry on a portion of Avon Location 15112, Luckman Road (the Premises) for the purpose of extracting Feldspar and Quartz. Location 15112 is owned by Sachse Farming Pty Ltd ATF Sachse Farming Trust. Whitestone has a legal agreement with Sachse Farming to lease a portion of Location 15112 for the purpose of operating a quarry.

The current land use of the site is productive farming for 80% of the site, with the remaining 20% of the land rocky outcrops unable to be farmed. Only three native trees remain on the adjacent paddock and no native vegetation will be disturbed as a part of the proposed works.

Local Planning approval was granted by the Shire of Mt Marshall on 19 August 2014 to operate an extractive industry with a production rate of between 5 000 – 10 000 tonnes per annum. The hours of operation are limited by the Local Planning approval to daylight hours Monday to Sunday.

This Works Approval is to authorise the construction of the quarry including installation of its mobile crushing and screening plant. At present two alternative mobile crushing circuits are being evaluated for use: option one consisting of a jaw crusher with a vibrating feeder, cone crusher and screen placed in sequence and option two being a jaw crusher with an apron style belt feeder, cone crusher and screen. This works approval authorises the installation of either of the mobile crushing circuits described, but not both. The works approval authorises the installation of a mobile crushing circuit that will produce a combined total of no more than 10,000 tonnes of crushed feldspar and quartz.

The extraction activity involves blasting approximately every 4 – 6 weeks.

Blasting activities have been restricted to occurring between 0900 and 1600 hours Monday to Friday, as per the Local Planning approval, unless the Shire of Mt Marshall has been given ten working days notice of an alternative time. The Local Planning approval further requires that all residences within a 10 km radius of the site must have been notified 24 hours in advance of any blasting and that a record of these notifications is kept.

The nearest sensitive receptor to the site is a residence approximately 5km south west (depicted in Figure 2 in Appendix A). Given the distance to the nearest receiver, and the restriction of daylight operation, the crushing circuit noise is not expected to be discernible from background noise.

A mobile service truck with 12 500L capacity tank will be used for fuelling and lubricating machinery. No permanent fuel storage will be installed. Waste oils/fuels will be stored in appropriate containers on concrete hardstand within a shed (undercover) until they are disposed of offsite. General waste will also be disposed of offsite.

No surface water drainage lines or creeks are located on the Premises.



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	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	W1.2.3	OSC	<p>Abnormal Operation</p> <p><u>Emission Description</u> <i>Emission:</i> Stormwater contaminated with sediment (dissolved solids) discharging to land offsite. <i>Impact:</i> Contamination of surrounding land from turbid flows discharging sediment. <i>Controls:</i> The proponent proposes to install a bund of topsoil at the northern boundary of the site, extending part way to the east and west boundaries to contain stormwater that may run off the stockpile area during extreme weather events (refer to Figure 1 for a depiction of the predominant surface water flows and location of the bund). The south of the site is elevated so stormwater in that area will flow towards, and be contained, in the quarry pit.</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> OSC 1.2.3 has been added to the works approval to require the operator to maintain the site so that potentially contaminated stormwater is captured within the Premises.</p>	<p>Application supporting documentation</p> <p><i>Environmental Protection Act 1986</i></p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</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
			<u>Residual Risk</u> <i>Consequence</i> : Insignificant <i>Likelihood</i> : Unlikely <i>Risk Rating</i> : Low	
Emissions general	W2.1.1	OSC	Descriptive limits will be set through condition 2.2.1 of the works approval and therefore OSC regarding recording and investigation of exceedances of limits or targets has been included.	N/A
Point source emissions to air including monitoring	W – no conditions	N/A	No significant point source emissions to air are expected from construction or operation of the quarry and no conditions are specified.	N/A
Point source emissions to surface water including monitoring	W- no conditions	N/A	No point source emissions to surface water are expected from construction or operation of the quarry and no conditions are specified.	N/A
Point source emissions to groundwater including monitoring	W – no conditions	N/A	No point source emissions to groundwater are expected from construction or operation of the quarry and no conditions are specified.	N/A
Emissions to land including monitoring	W – no conditions	N/A	No emissions to land are expected from construction or operation of the quarry and no conditions are specified.	N/A
Fugitive emissions	W2.2.1	OSC	DER's assessment and decision making are detailed in Appendix B.	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
				<i>Environmental Protection Act 1986</i>
Odour	W – no conditions	N/A	No odour emissions are expected to be generated from the quarry construction works or operations and no conditions are specified in this section.	N/A
Noise	W – no conditions	N/A	<p>Construction and Operations</p> <p><u>Emission Description</u> <i>Emission:</i> Noise from mobile crushing circuit (consisting of a jaw crusher, cone crusher and screen). <i>Impact:</i> Noise emissions impacting on neighbouring resident's amenity. Nearest sensitive receiver is 5km south west of the site (refer to Figure 2 in Appendix A). <i>Controls:</i> Construction and operations are restricted to daylight hours.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> No regulatory controls are specified due to the low risk.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p>	N/A
Monitoring general	W – no conditions	N/A	There are no specified conditions in this section.	N/A



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 of inputs and outputs	W – no conditions	N/A	There are no specified conditions in this section.	N/A
Process monitoring	W – no conditions	N/A	There are no specified conditions in this section.	N/A
Ambient quality monitoring	W – no conditions	N/A	There are no specified conditions in this section.	N/A
Meteorological monitoring	W – no conditions	N/A	There are no specified conditions in this section.	N/A
Improvements	W – no conditions	N/A	There are no specified conditions in this section.	N/A
Information	W5.1.1 W5.1.2	SC	Conditions relating to submission of a compliance report are included as standard.	N/A
Works Approval Duration	N/A	N/A	The works approval has been issued for a three year period although works are expected to be completed within one year.	N/A



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
15/06/2015	Application advertised in West Australian (or other relevant newspaper)	No comments	N/A
12/06/2015	Application referred to interested parties listed: - Shire of Mt Marshall	No comments	N/A
18/06/2015	Proponent sent a copy of draft instrument	Proponent forwarded email dated 26/6/15 proposing alternative manufacturer's machinery for use in the mobile crushing circuit. The alternative circuit has essentially the same components as the original proposal (jaw crusher, cone crusher and screen) but the the alternative reduces the number of transfer points from 11 in the original proposal to 6.	Included in risk assessment for fugitive dust in Appendix B and email reference included in Table 1.2.1 of Works Approval. DER corrected the site location (folio number corrected) and map coordinates in Schedule 1.



6 Risk Assessment

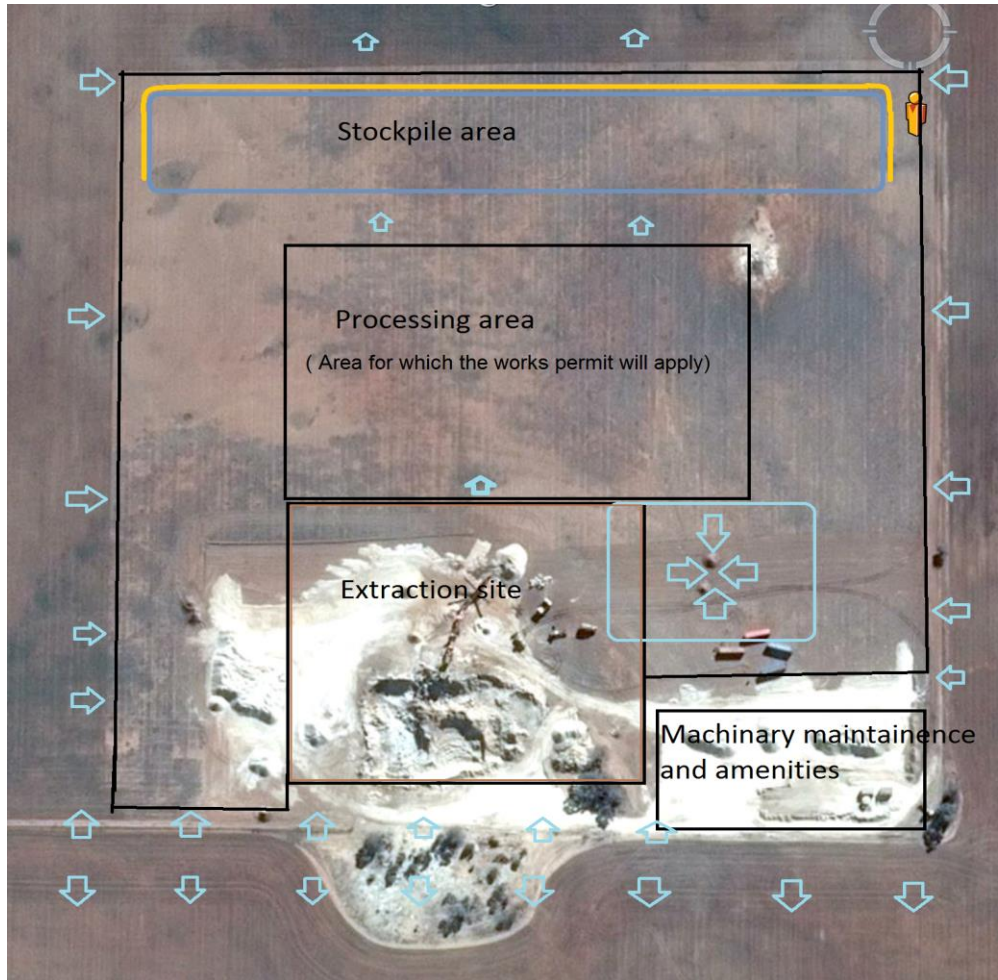
Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

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



Appendix A



Water runoff management plan

Key

- The blue arrows represent the slight gradients of the land.
- This area is a low point in the lease where water sometimes pools during high rainfall.
- This area has a very slight downhill gradient to the north. water will pool here in the unlikely event of flash flooding.
- Bund wall to prevent any fines or containents being carried off of the site in runoff.
- The extraction site will contain the pit. The pit will be surrounded by a bund wall and have the access ramp constructed in a manner which will prevent any runoff from the surrounding area from flowing into the pit.

Note: This diagram is a guide only. Please refer to the site plans document for a more detailed explanation (section 1.11).

Figure 1. Stormwater Management Plan for the Premises.

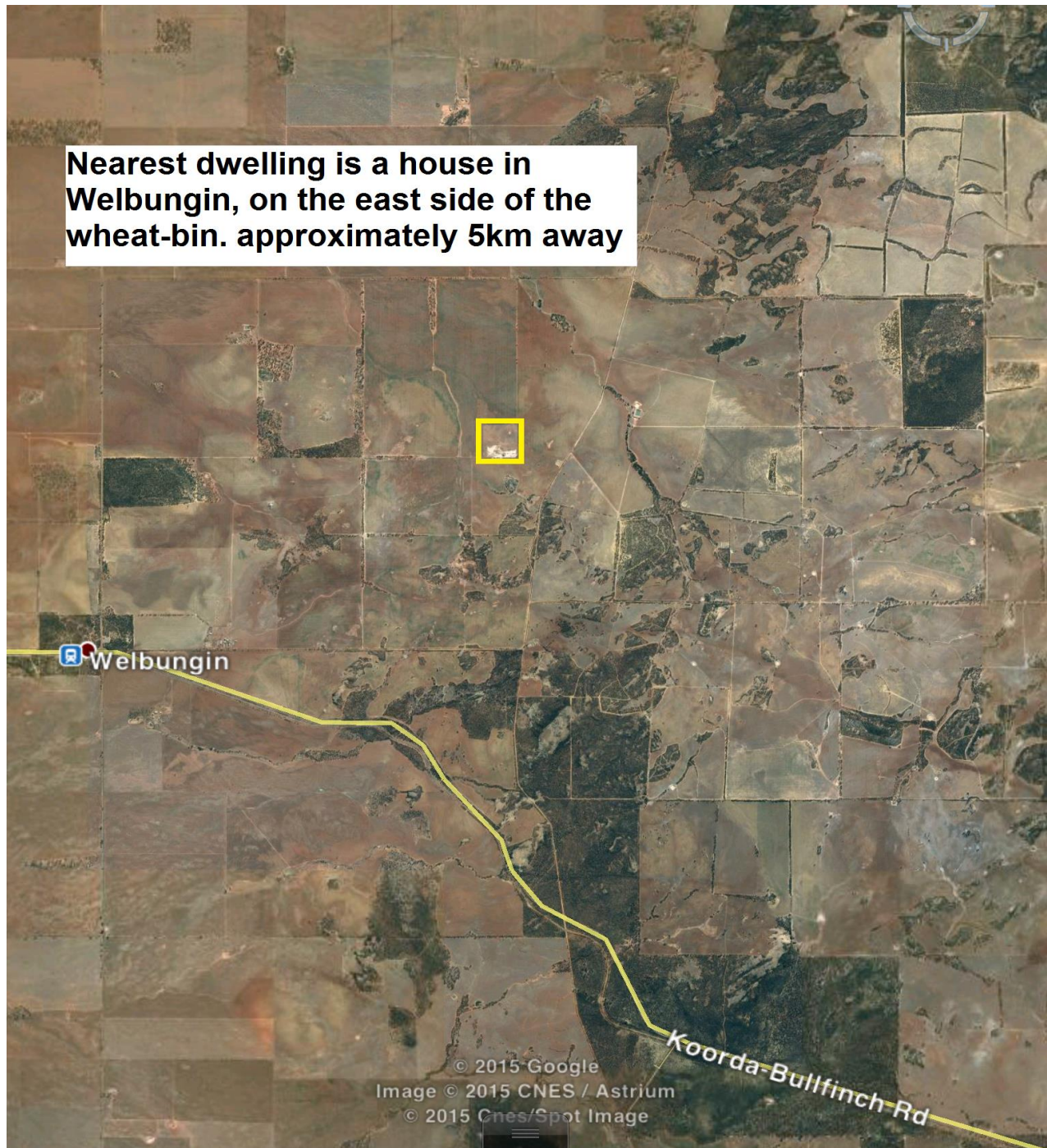


Figure 2. The location of the Premises' nearest sensitive receptor.



Appendix B

Fugitive emissions

Construction and Operation

Emission Description

Emission: Fugitive dust emissions generated from movement of mobile plant, crushing of extractive materials and stockpiling.

Impact: Dust emissions can be harmful to human health and the environment. Elevated particulate concentrations in ambient air can impact on native vegetation by smothering leaves. Small particle sized dust (less than 10 microns in diameter – known as PM10) in particular has the potential to impact on human health as it able to be drawn far into the lungs. The chemical and physical properties of the particles, the size of the particles and the duration of exposure are all factors which may affect human health impacts from dust.

The nearest sensitive receptor is a residence approximately 5km south west of the Premises (refer to Figure 2 in Appendix A).

Controls: The crushing circuit will be located in the centre of the site to mitigate offsite impacts. All discharge conveyors from the screen are located low to the ground (3.5m) and the distance of transfer points between machines is small (< 1m). The screen also has rubber mats placed along the top deck to act as a dampener to reduce dust emissions.

Two crushing circuits are under consideration. Both circuits include the same key pieces of equipment (jaw crusher, cone crusher and screen) with a reduced number of transfer points (11 to 6) in the alternative circuit.

Water will be sprayed onto active areas of earthmoving to reduce dust. A water spray can be fitted to the crushing circuit is required.

Monitoring of dust will be conducted visually by employees whilst operating machinery.

Risk Assessment

Consequence: Insignificant (for both circuits).

Likelihood: Possible

Risk Rating: Low

Regulatory Controls

OSC W2.2.1 has been included as a Works Approval condition to ensure that the dust is managed during construction.

Residual Risk

Consequence: Insignificant

Likelihood: Unlikely

Risk Rating: Low