



## Application for Licence

### Part V Division 3 of the *Environmental Protection Act 1986*

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<b>Licence Number</b>	L9269/2020/1
<b>Applicant</b>	Greg John Starkie and Janice Patricia Starkie
<b>File Number</b>	DER2020/000608
<b>Premises</b>	Starkies Pit 807 Middlesex Road MIDDLESEX WA 6258  Legal description Lot 9 on Deposited Plan 13868 Certificate of Title Volume 1654 Folio 422 As defined by the Premises maps attached to the issued licence
<b>Date of Report</b>	20 January 2021
<b>Decision</b>	Licence granted

**SENIOR INDUSTRY REGULATION OFFICER  
REGULATORY SERVICES**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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## 1. Decision summary

This Decision Report documents the assessment of potential risks to the environment and public health from emissions and discharges during the operation of the Premises. As a result of this assessment, Licence L9269 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this Decision Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

### 2.2 Application summary and overview of Premises

On 24 November 2020, the applicant submitted an application for a licence to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The applicant has historically conducted quarrying operations at the site, however an increase in product demand has resulted in production exceeding the 5000 tonnes per annum throughput specified in the *Environmental Protection Regulations 1987* (EP Regulations) for a Category 70 (Screening etc. of material) prescribed premises. As such, the application is to seek a licence for ongoing quartzite and sand quarrying activities at the Premises. The Premises is approximately 9.5 km south east of Manjimup. It is noted that the applicant specified a proposed throughput capacity of 50,000 tonnes per annum. This throughput is consistent with the production capacity of Category 12 (Screening etc. of material), rather than Category 70. As such, the Licence has been assessed in relation to Category 12.

It is estimated that approximately 30% of excavated Quartzite will require crushing and screening prior to being removed from the Premises. Crushing and screening equipment is hired by the applicant when required and is typically brought to the Premises for 8-10 days at a time 3-4 times per year, when an adequate amount of Quartzite has been stockpiled on the Premises. Quarrying operations are limited to the southern portion of the Premises and are detailed in Figure 1.

To manage stormwater flow across the Premises the applicant intends to recontour existing roadways and vehicle turnarounds and install low profile bunds, which will act to divert stormwater either to the quarry area or adjoining farmland within the Premises boundary for infiltration into the soil.

The Premises relates to the category and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in Licence L9269. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guidance Statement: Risk Assessments* (DER 2017) are outlined in Licence L9269.

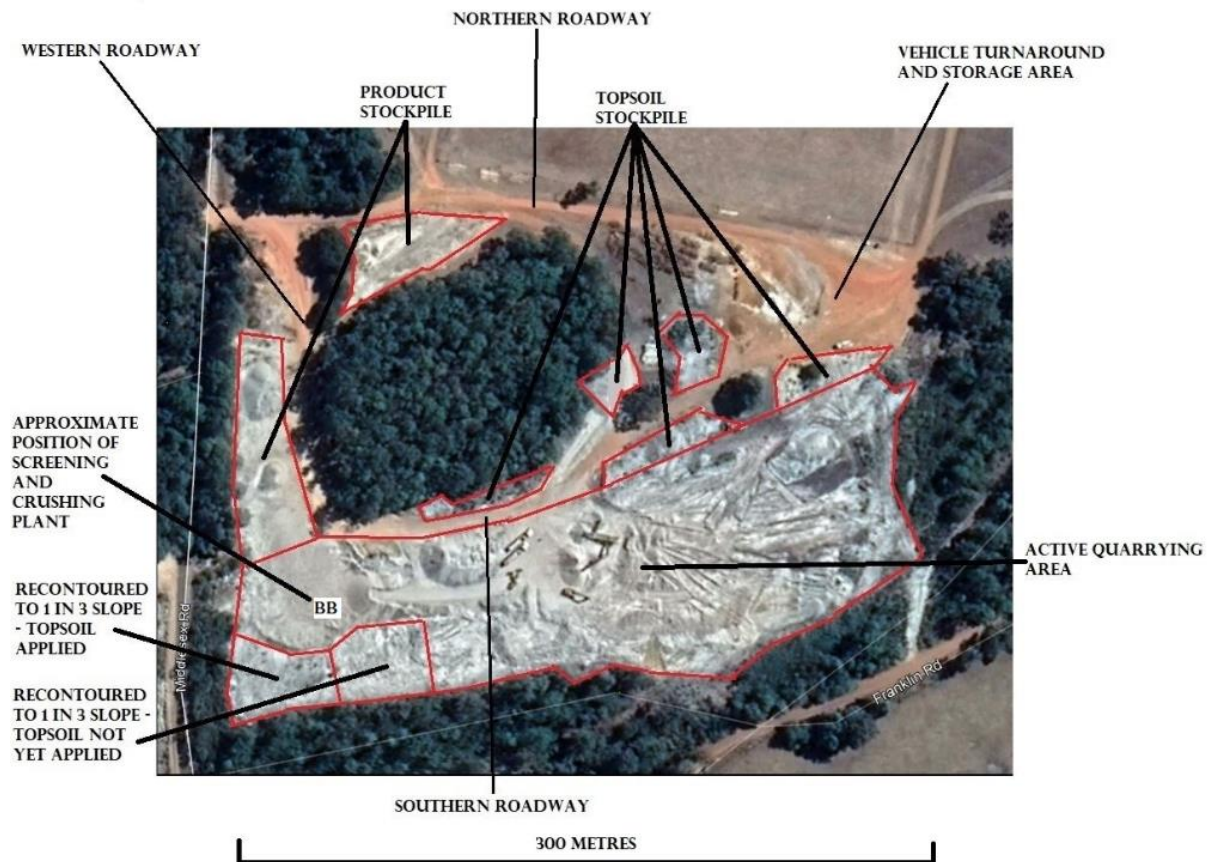
It is noted the applicant conducted quarrying activities at the premises between 2004 and 2009, with the department having no record of complaints pertaining to noise or dust from the premises during this period.

### 2.3 Planning Approval

On 21 October 2020, the Applicant was granted Development Approval by the Shire of Manjimup (150/2019) for extractive industry, which authorises quarrying activities at the Premises that are not regulated under the EP Act.

The Development Approval will expire on 15 October 2025. DWER will consider the duration of

the approval when determining the duration of the licence, in line with the DWER Guideline *Industry Regulation: Guide to Licensing*.



**Figure 1: Premises layout**

### 3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guidance Statement: Risk Assessments* (DER 2017).

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.

#### 3.1 Source-pathways and receptors

##### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Decision Report are detailed in Table 1.

Table 1 also details the proposed control measures the applicant has proposed to assist in controlling these emissions, where necessary.

**Table 1: Proposed applicant controls**

Emission	Sources	Potential pathways	Proposed controls
Dust	Excavation of material, crushing of material, vehicle movements, lift-off from stockpiles and/or stored product, earthworks etc.	Air/windborne pathway	<p>Operations are to cease when wind conditions are high and blowing in the direction of nearby residences.</p> <p>A 15m high vegetated ridge exists to the south of the quarrying area, between the quarry and the nearest residential receptor.</p> <p>All crushing and screening will occur in the lowest point within the quarry, marked as BB in Figure 1.</p> <p>Operations limited to 8-10 days at a time 3-4 times per year.</p> <p>Farm dam with a water pump available to provide water to wet down materials when required.</p> <p>Water bars can be fitted to crushing machinery if needed.</p>
Noise	Excavation, crushing and screening of material	Air/windborne pathway	<p>All operations are limited to Monday to Friday between 7:00am and 5:00pm.</p> <p>A 15m high vegetated ridge exists to the south of the quarrying area, between the quarry and the nearest residential receptor.</p> <p>Operations are to cease when wind conditions are high and blowing in the direction of nearby residences.</p> <p>All crushing and screening will occur in the lowest point within the quarry, marked as BB in Figure 1.</p> <p>Operations limited to 8-10 days at a time 3-4 times per year.</p> <p>Complaints register to be maintained.</p>
Sediment laden stormwater	Stockpiling of stored product	Seepage to soil and groundwater	<p>No contaminants are stored on site.</p> <p>Raw product generated does not contain any contaminants.</p> <p>Existing road surfaces will be recontoured and low profile bunds installed to divert stormwater runoff generated from roadways and vehicle turnarounds into the quarry excavation area and into farmland on the north side of the quarry.</p>

### 3.1.2 Receptors

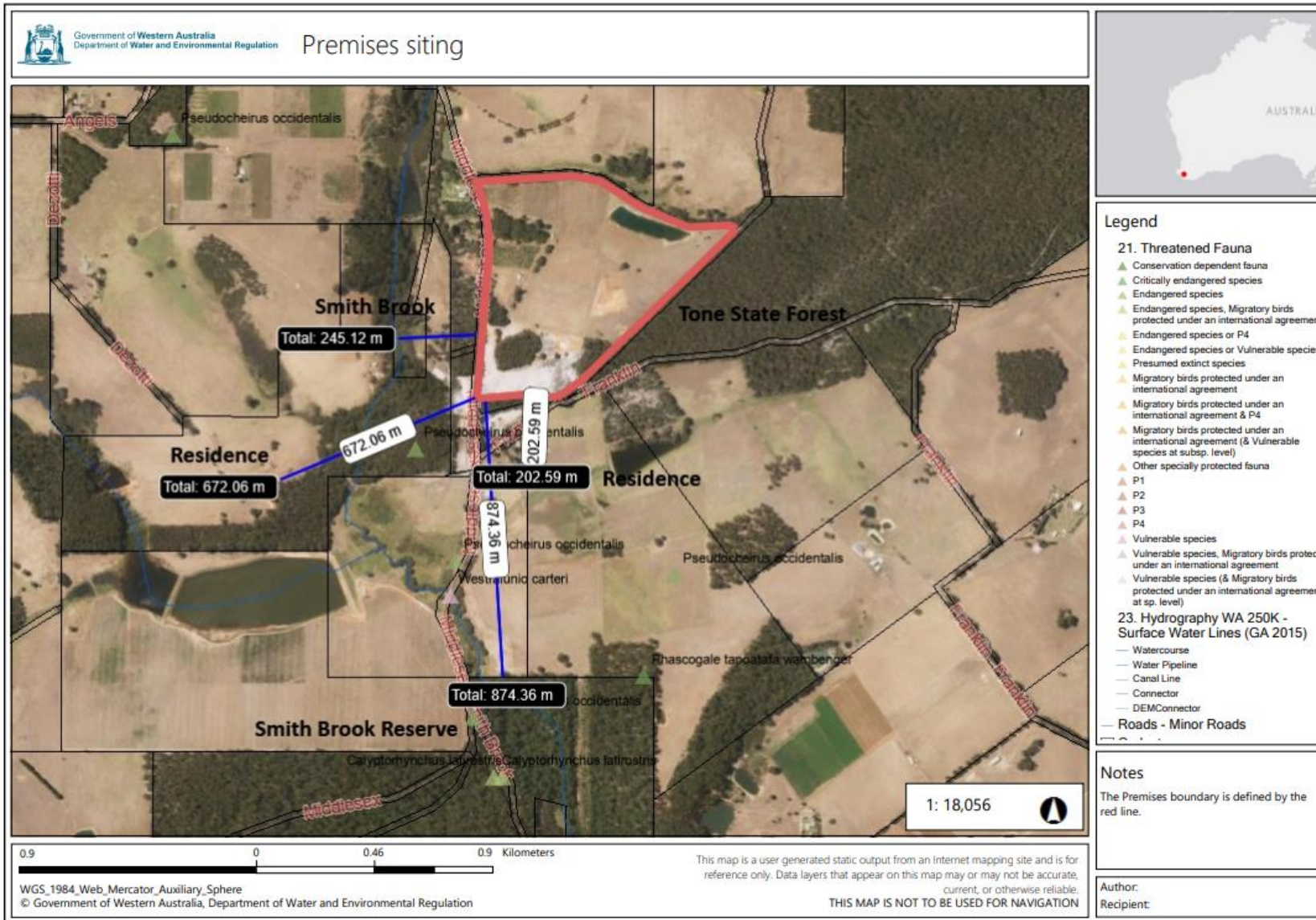
In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), the Delegated Officer has excluded employees, visitors and contractors of the applicant's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 2 and Figure 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guidance Statement: Environmental Siting* (DER 2016)).

**Table 2: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Residential Premises	Two residences within a 750 m radius of Premises boundary. The nearest residence is located 230 metres to the south, with 15 metre high ridgeline separating the quarry from the dwelling.
Environmental receptors	Distance from prescribed activity
Tone state forest	Adjacent to Premises
Smith brook nature reserve <ul style="list-style-type: none"> <li>Epiphytic Cryptogams of the karri forest</li> </ul>	891 m south of Premises
Minor surface water line – Smith Brook	250 m west of the Premises
Threatened Fauna <ul style="list-style-type: none"> <li>Baudin's cockatoo (<i>Calyptorhynchus baudinii</i>)</li> <li>Carnaby's cockatoo (<i>Calyptorhynchus latirostris</i>)</li> <li>White-tailed cockatoo (<i>Calyptorhynchus sp.</i>)</li> <li>Western ring-tailed possum (<i>Pseudocheirus occidentalis</i>)</li> <li>South-western brush-tailed phascogale, wambenger (<i>Phascogale tapoatafa wambenger</i>)</li> <li>Carter's freshwater mussel (<i>Westralunio carteri</i>)</li> </ul>	Within a 1.5 km radius of the Premises
Proclaimed Surface Water area ( <i>RIWI ACT 1911</i> ) <ul style="list-style-type: none"> <li>Warren River and Tributaries</li> </ul>	Premises mapped within area





**Figure 2: Distance to sensitive receptors**

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## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Licence L9269 that accompanies this Decision Report authorises emissions associated with the crushing and screening operation of the Premises.

The conditions in the issued Licence, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).



**Table 3: Risk assessment of potential emissions and discharges from the Premises during operation**

Risk Event					Risk rating <sup>1</sup>	Applicant controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
Excavation, screening, crushing, unloading, loading and storage of material  Vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenity	Two rural residences within a 750 m radius of Premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1 and 2	N/A
	Noise		Threatened fauna mapped within a 1.5 km radius of Premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1 and 2 <i>The Environmental Protection (Noise) Regulations 1997</i> apply.	The appropriateness of current noise mitigation conditions can be reviewed in the event of any complaints being received
	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Threatened fauna mapped within a 1.5 km radius of Premises boundary  Tone state forest adjacent to Premises  Smith Brook 250 m west of Premises  Smith Brook nature reserve 891 m south of Premises  Warren River and Tributaries – Surface water area mapped within Premises area	Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	Emission will be managed under general provisions of the EP Act.	N/A

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).

Note 2: Proposed applicant controls are depicted by standard text. **Additional regulatory controls** depicts additional regulatory controls imposed by department.

## 4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

**Table 4: Consultation**

Consultation method	Comments received	Department response
Application advertised on the department's website 10 December 2020	N/A	N/A
Shire of Manjimup advised of proposal 10 December 2020	None received.	N/A
Applicant provided with draft documents 13 January 2021	<p>The applicant's preferred action to prevent dust from being a nuisance to neighbours is to stop operating the crushing plant and wait until the weather abates.</p> <p>The applicant's current controls and the nature of the quartzite means that to date, the applicant has not seen or been made aware of enough dust being generated via the operations to affect a nearby dwelling, let alone leaving the property.</p> <p>The applicant advises that a small farm dam is located some 400 metres east north east of the quarry together with a much larger gully dam some 550 metres north east of the quarry. The small farm dam sits higher in the landscape above the quarry and it feeds by gravity to a 5000 litre tank which is equipped with an electric pump and has a 50mm poly pipe attached for distributing water to wherever it is required. Hence, water is readily available and the applicant has no objection to a condition being attached to the License requiring the use of a water cart whenever dust is generated such that it is likely to be blown off site.</p> <p>The owners of the crushing equipment have advised that water bars can be fitted to crushing machinery if needed, but, to date, none have been deemed to be necessary on the previous occasions when the quarry proponent has hired and operated the equipment.</p>	<p>The additional potential controls of the use of water within the farm dam to suppress any emissions of fugitive dust, and the capacity to fit water sprays to the crusher, has been noted within the Decision report. These additional control measures will not alter the risk rating previously determined.</p> <p>Conditions within the Licence are deemed to be adequate to manage any potential ongoing dust emissions.</p>

	<p>The applicant has advised that no noise test has ever been done within or adjoining the pit due to the perceived lack of a need to conduct noise testing. They advised that the noise from this machinery has not escaped from the quarry in past years.</p> <p>The applicant does not object to a condition being imposed on the License that:</p> <ul style="list-style-type: none"> <li>• a written register of all complaints, including noise complaints, shall be maintained by the operator and</li> <li>• following the first noise complaint received by the Shire of Manjimup or the proponent, the proponent shall as soon as is practicable commission a noise assessment to be carried out to survey the operation for its sources and levels of noise. The resulting report will be provided to the Shire of Manjimup whose recommendations on noise mitigation measures to be implemented by the operator will be adopted by the proponent.</li> </ul>	<p>While noise modelling has not been conducted on site operations, this does not alter the risk rating determined for noise emissions.</p> <p>Conditions in the Licence have been deemed as adequate to mitigate any potential ongoing risk.</p> <p>Reference to a potential review of the adequacy of noise management conditions in the event of complaints against the premises being received has been included in this Decision report.</p>
	<p>Please amend the category to Category 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 but less than 50 000 tonnes per year</p>	<p>Category has been changed to reflect Category 70: Screening etc. of material with an assessed production capacity of less than 50,000 tonnes per annual period.</p>

## 5. Conclusion

Based on the assessment in this Decision Report, the Delegated Officer has determined that a licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

## References

1. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
2. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
3. DER 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
4. Department of Water and Environmental Regulation (DWER) 2019, *Guideline: Industry Regulation: Guide to Licensing*, Perth, Western Australia.

## Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input checked="" type="checkbox"/>	Relevant works approval number:		None <input checked="" type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input type="checkbox"/>	Current licence number:		
		Relevant works approval number:	N/A	<input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:	None	<input type="checkbox"/>
Date application received	24 November 2020			
Applicant and Premises details				
Applicant name/s (full legal name/s)	Greg John Starkie and Janice Patricia Starkie			
Premises name	Starkies Pit			
Premises location	807 Middlesex Road, Middlesex, 6258			
Local Government Authority	Shire of Manjimup			
Application documents				
HPCM file reference number:	DER2020/000608			
Key application documents (additional to application form):	Water Management and Site Rehabilitation Plan Development Approval Quarry site plan Aerial Image with boundaries			
Scope of application/assessment				
Summary of proposed activities or changes to existing operations.	Quartzite quarry – crushing and screening operation			

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Proposed production or design capacity	Prescribed premises category and description
Category 70: screening etc. of material	50,000 tonnes per annum	Category 70: screening etc. of material

**Legislative context and other approvals**

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input checked="" type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Approval: 150/2019 Expiry date: 15 October 2025 If N/A explain why?
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: Licence/permit No: Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Type: Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: N/A



<p>Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Name: N/A  Priority: N/A  Are the proposed activities/ landuse compatible with the PDWSA (refer to <u>WQPN 25</u>)?  Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p>
<p>Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Classification: N/A  Date of classification: N/A</p>