

# **Decision Report**

# **Application for Works Approval**

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

Works Approval Number W6797/2023/1

Applicant Hanson Construction Materials Pty Ltd

**ACN** 009 679 734

File number DER2023/000223

Premises Red Hill Quarry

Lot 11 on Plan 3047 945 Toodyay Road RED HILL WA 6056

As defined by the premises map attached to the issued works

approval

Date of report 07 July 2023

**Decision** Works approval granted

#### A/SENIOR ENVIRONMENTAL OFFICER, INDUSTRY REGULATION

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 construction and operation of the premises. As a result of this assessment, works approval W6797/2023/1 has been granted.

## 2. Scope of assessment

#### 2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at <a href="https://dwer.wa.gov.au/regulatory-documents">https://dwer.wa.gov.au/regulatory-documents</a>.

#### 2.2 Application summary and overview of premises

On 28 March 2023, Hanson Construction Materials Pty Ltd (the applicant) submitted an application (Hanson 2023a) for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction of a 26.01 ha concrete disposal and processing area at the premises. This will include the crushing, sorting, and stockpiling of un-used concrete material from the applicant's concrete batch plants located within the prescribed premises. The premises is approximately 1.7 km west of the nearest town of Herne Hill.

The applicant proposes to use the existing screening and crushing plant, which is authorised under Licence L4414/1968/12 (category 12) for 2,000,000 tonnes per year; and loaders to sort and crush the concrete material.

The application was originally for category 13 and category 62 activities. The application states "only un-used concrete material from Hanson's concrete batch plants will be directed to the 26.01 ha solid waste (concrete) laydown and processing area located within the Red Hill Quarry's premise boundary."

It was determined that category 62 (solid waste depot) was not necessary since the un-used concrete material is from the applicant's concrete batch plants located within the existing premises' boundary and therefore not considered a 'waste' product.

The premises relates to category 13 and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6797/2023/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6797/2023/1.

#### 2.3 Part IV of the EP Act

As a result of the Public Environmental Review process, the Minister for Environment granted approval for the establishment of the Red Hill Quarry, under Ministerial Statement (MS)199, issued on 04 December 1991. On 21 December 2005, MS 705 was then issued, amending the conditions of MS 199 to include the development and approval of an updated Screening and Rehabilitation Plan (March 2007), which was completed, approved, and is reported on annually.

On 09 October 2012, MS 912 was issued, approving the extension to the Red Hill Quarry subject to environmental conditions.

#### 2.4 Other Approvals

The application states that the applicant holds Development Approvals for the amended and expanded quarry area from the City of Swan.

The Western Australian Planning Commission (WAPC) also issued approvals for both applications.

Both the Development Approvals and WAPC approval has no end date.

The applicant has provided a valid Extractive Industries Licence which expires 13 February 2033.

#### 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 *Guideline: Risk Assessments* (DWER 2020).

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 construction and operation which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the 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						
Construction	Construction								
Dust	Placement of screen and associated equipment including vehicle movements	Air / windborne pathway	<ul> <li>Use of water within the two water storage dams.</li> <li>Dust suppression using dedicated water carts.</li> <li>Application of speed limits.</li> <li>Regular road sweeping program is used on the crossover to Toodyay Road.</li> <li>Standard noise suppression on</li> </ul>						
Operation			machinery.						
Dust	Vehicle and machinery activity on disturbed ground and unsealed roads  Wind – driven dust	Air / windborne pathway	<ul> <li>Use of water within the two water storage dams.</li> <li>Dust suppression using dedicated water carts.</li> </ul>						

Emission	Sources	Potential pathways	Proposed controls
	lifts off from crushed concrete stockpiles Concrete crushing and screening		<ul> <li>Application of speed limits.</li> <li>Regular road sweeping program is used on the crossover to Toodyay Road.</li> <li>Water canons are used to reduce dust generation from product stockpiles. The water cart is also installed with a water canon.</li> <li>The stockpiles are located in dedicated areas, surrounded by tree vegetation. The surrounding trees provide reductions in windspeed across the stockpiles and also provide filtering capability.</li> </ul>
Noise	Vehicle, machinery, and plant operations	Air / windborne pathway	Standard noise suppression on machinery.
Sediment laden stormwater	Stockpiling, washing material	Overland runoff	<ul> <li>Two sediment traps placed strategically to collect storm water runoff from the stockpiles, prior to water entering the southern dam.</li> <li>Ensure settlement traps are regularly cleaned and water retained.</li> </ul>
Hydrocarbons	Leaks of hydrocarbons (Oil or fuel) from machinery	Direct discharge to land	None proposed.

#### 3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant's employees, visitors, and contractors 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 1 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 (*Guideline: Environmental Siting* (DWER 2020)).

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

Human receptors	Distance from prescribed activity
Residential Premises	1.7 km west of the proposed activity     2.0 km east of the proposed activity
Aboriginal Site and Heritage Place ID 3188  Mythological, Camp, Hunting Place, Meeting Place, Named Place, Natural Feature, Plant Resource	100 km² heritage site which completely encompasses the Red Hill Quarry site  Ancestral Owl Stone was assessed by the Aboriginal Cultural Material Committee (ACMC) and found to be a site within the meaning of the AH Act and it was placed on the Heritage Register with a buffer of 250 m in radius.
Aboriginal Sites and Heritage Places: HERNE HILL OCHRE (place ID: 3721, Mythological, quarry, water source)	Located within the prescribed premises, overlapping the area of proposed concrete laydown and processing area.
Aboriginal Sites and Heritage Places: RED HILL (place ID: 3433, Mythological & Ochre)	Located within the prescribed premises, overlapping the proposed activity area
Red Hill Auditorium (Open-air live music venue)	0.32 km south of the proposed activity area
Environmental receptors	Distance from prescribed activity
Threatened Ecological Communities (TEC): Central Northern Darling Scarp Granite Shrubland Community (Priority 4)	Located within the prescribed premises, 0.5 km west of the proposed activity area
Susannah Brook – surface water line	Located within the prescribed premises, 0.5 km north of the proposed activity area
Minor surface water line	Located within the prescribed premises, 0.5 km west of the proposed activity area
Threatened fauna:  Calyptorhynchus latirostris (Carnaby's Cockatoo)	Located within the prescribed premises, 1.35 km west of the proposed activity area
Threatened fauna:  Isoodon fusciventer (Quenda, southwestern brown bandicoot)	0.5 km south-east of the proposed activity area



Figure 1: Distance to sensitive receptors

### 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) 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 works approval 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.

Works approval W6797/2023/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

An amendment to licence L4414/1968/12 is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises i.e. category 13 activities. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

Table 3: Risk assessment of potential emissions and discharges from the premises during construction and operation

Risk events					Risk rating <sup>1</sup>			
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Construction								
	Dust		Residences 1.7 km west and 2.0 km east of the proposed activity	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Υ	Condition 1	N/A
Placement of screen and associated equipment including vehicle movements (reversing beepers).	Noise	Air / windborne pathway causing impacts to health and amenity	TEC  Adjacent native vegetation  Threatened fauna  Aboriginal sites and heritage places	Refer to Section 3.1	C = Minor L = Unlikely Low Risk	Y	Condition 1	N/A
Operation (including time-limited-operation)	ions operations)							
Vehicle and machinery activity on disturbed ground and unsealed roads  Wind – driven dust lifts off from crushed concrete stockpiles  Concrete crushing and screening	Dust	Air / windborne pathway causing impacts to health and amenity	Residences 1.7 km west and 2.0 km east of the proposed activity TEC Adjacent native vegetation Threatened fauna Aboriginal sites and heritage places	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	N	Condition 1  Condition 2  Condition 6  Condition 2.3.1 on existing Licence L4414/1968/12 relating to fugitive emissions	As the applicant is proposing to utilise the existing crushing and screening plant, the department has included condition 2 to ensure an audit is undertaken of the equipment to ensure controls are fit for purpose prior to the crushing of concrete.  Condition 6 has been added ensuring that the
Vehicle, machinery, and plant operations	Noise	Air / windborne pathway causing impacts to health and amenity	Residences 1.7 km west and 2.0 km east of the proposed activity Aboriginal sites	Refer to Section 3.1	C = Minor L = Unlikely Low Risk	Y	Condition 1  Condition 2	crushed material is only sourced from the concrete batching plants within the existing premises boundary.

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Risk events					Risk rating <sup>1</sup>	Anuliaant		Lucatification for
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
			and heritage places				Condition 6  Conditions 2.4.1 and 3.2.1 on existing Licence L4414/1968/12 relating to noise/vibration emission limits and the monitoring of ambient noise/vibration quality	
Stockpiling, washing material	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Susannah Brook and minor surface water line Native vegetation Threatened fauna	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1 Condition 6 Condition 1.3.2 on existing Licence L4414/1968/12 relating to stormwater management	N/A
Machinery malfunction	Hydrocarbons	Direct discharge to land impacting vegetation and fauna health	Native vegetation Threatened fauna	Refer to Section 3.	C = Slight L = Unlikely <b>Low Risk</b>	N/A	The Environmental Protection (Unauthorised Discharges) Regulations 2004 apply Existing Licence L4414/1968/12 conditions 1.2.2 and 1.3.3 apply	N/A

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Guideline: Risk Assessments (DWER 2020).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** 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 on 02/05/2023	Submission was received from Gidgegannup Progress Association on 23/05/2023, with the main issues being:	To note: the department determined the applicant did not require a category 62 as part of this works approval, as the applicant will not be accepting material externally.
	Large number of extra loaded incoming trucks coming UP Red Hill	The applicant has stated that they will only crush, sort and stockpile un-used concrete material sourced from within the existing prescribed premises.
		The department does not regulate transport and road safety. This is regulated by Main Roads Western Australia.
	2. Toodyay Rd already beyond capacity and Eastlink likely a long way off in the future, Toodyay Rd is mostly single lane all the way to Hansons/EMRC	The applicant has advised (Hanson 2023b) that an estimated 1 to 2 additional truck movements (via a tipper truck) would be entering and exiting per day.
	Category 13 includes demolition waste, leaves open the	As above, the applicant will only crush un-used concrete material sourced from within the existing prescribed premises.
	opportunity to accept demolition waste in the future	The department has included an operational requirement under this works approval "Material to be stored, screened and/or crushed may only be sourced from the concrete batching plants within the prescribed premises", which will ensure construction and demolition waste from off-site is not crushed at present.
		If the applicant wishes to crush material from off-site, a separate application will need to be submitted and risk assessed by the department.
	Little Control of loads to avoid hazardous debris falling out of	The applicant advised (Hanson 2023b) that the following controls are implemented for trucks leaving the premises and during transport:
		All trucks are installed with covers to prevent loads from being disturbed during

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Consultation method	Comments received	Department response
	trucks onto the roads, kerbs and verges	<ul> <li>transport.</li> <li>Trucks are visually inspected by drivers and staff as they enter/leave the site.</li> <li>A wheel wash facility is located at the weighbridge and removes dust and product from the wheels and underside of road trucks prior to leaving the site.</li> <li>Regular road sweeping program is used on the crossover to Toodyay Road which is typically swept three times per working week</li> </ul>
	5. No time limit to this activity – does this mean the site will continue operating long after the granite resource is exhausted? This likely means that enviro rehabilitation is indefinitely deferred.	The applicant will be able to undertake the category 13 activity under this works approval for a period of 180 days or until existing Licence L4414/1968/12 is amended (if amended before the end of the 180 days specified) to include category 13.  The applicant has existing obligations under Part IV of the EP Act which remain in effect. This includes a Screening and Rehabilitation Plan among other conditions.
	Are the owners setting up the site to transition to other streams of activity such as inert waste receival and demolition waste	The applicant has not requested this under this works approval application.  If waste streams were to change, the applicant would need to consult with the department.
	7. Just because something is badged "recycling" doesn't mean it's good for the LOCAL community who has to live with it all	The department has conducted a risk assessment in accordance with its Regulatory Framework and determined that the risk of emissions can be managed by either applicant's controls conditioned and/or with existing licence conditions.
Local Government Authority City of Swan advised of proposal on 04/05/2023	No comments received	N/A
Stakeholder Red Hill Auditorium Pty Ltd	No comments received	N/A

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Consultation method	Comments received	Department response
advised of proposal on 04/05/2023		
Applicant was provided with draft documents on 29/06/2023	The applicant addressed the department's request for further information.  The applicant made no other comments.	The documents were updated accordingly.

#### 5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval 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) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- 2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
- 3. DWER 2020, Guideline: Risk Assessments, Perth, Western Australia.
- 4. Hanson 2023a, *Hanson Red Hill Quarry Works Approval*, received 28 March 2023 (A2166574).
- 5. Hanson 2023b, Category 13 at Red Hill Quarry within Lot 11 on Plan 3047 (Reference DER2023/000223), received 03 July 2023 (DWERDT801930).

# **Appendix 1: Application validation summary**

SECTION 1: APPLICATION SUMMARY				
Application type				
Works approval	$\boxtimes$	W6797/2023/1		
Date application received		28 March 2023		
<b>Applicant and Premises</b>	details			
Applicant name/s (full lega	al name/s)	Hanson Construction Materials Pty Ltd		
Premises name		Red Hill Quarry		
Premises location		Lot 11 on Plan 3047 945 Toodyay Road RED HILL WA 6056		
Local Government Author	ity	City of Swan		
Application documents				
HPCM file reference numl	ber:	A2166574		
Key application document (additional to application f		Concrete recycling licence letter, including site maps / photos and prescribed activity details.		
Scope of application/ass	sessment			
Summary of proposed activities or changes to existing operations.		Works approval for the construction of a 26.01 ha solid waste (concrete) disposal and processing area within the Red Hill Quarry prescribed premise boundary. Including crushing, sorting, and stockpiling of concrete material (maximum of approximately 100,000 tonnes per year).		
		Only unused concrete material from Hanson's concrete batch plants will be directed to the 26.01 ha solid waste (concrete) laydown and processing area located within the Red Hill Quarry's premises boundary. As a result, the material is unlikely to be considered a 'waste' and category 61A/62 will not be applicable.		
		The 26.01 ha area proposed is currently used for crushing, screening, and stockpiling of aggregates material (granite). No additional or materially new use is proposed for this area, other than the works proposed in the specific prescribed premises category(s).		
		Reprocessing this material into a saleable product, using the existing practices currently utilised at Red Hill Quarry prevents it otherwise going into landfill and reduces the potential for waste in Hanson's concrete supply chain. Hanson's objective is consistent with the objectives of the <i>Waste Avoidance and Resource Recovery Act 2007</i> , specifically, the avoidance of waste.		
		Hanson proposes to use the existing (and operational) screening and crushing plant (which has an approved production capacity of 2,000,000 tonnes per year) and loaders to sort and crush the concrete waste material.		

**Table 1: Prescribed premises categories** 

Prescribed premises category and description	Proposed production or design capacity		
Category 13 - Crushing of building material: premises on which waste building or demolition material (for example, bricks, stones			

or concrete) is crushed or cleaned.	Estimated throughput 50,000 tonnes per annum					
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 □ No ⊠	Referral decision No:  Managed under Part V   Assessed under Part IV				
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes ⊠ No □	Ministerial statement No: EPA Report No: Previous Ministerial Statements 199, and 912.				
Has the proposal been referred and/or assessed under the EPBC Act?	Yes □ No ⊠	Reference No:				
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ⊠ No □	Certificate of title □  General lease □ Expiry:  Mining lease / tenement □ Expiry:  Other evidence □ Expiry:				
Has the applicant obtained all relevant planning approvals?	Yes⊠ No□ N/A□	Approval: City of Swan Extractive Industries Licence Expiry date: 23 April 2023 If N/A explain why?				
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes □ No ⊠	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 □ No ⊠	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 □ No ⊠	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 □ No ⊠	Name: N/A  Type: N/A  Has Regulatory Services (Water) been consulted?  Yes □ No □ N/A ☒  Regional office: N/A				

Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes □ No ⊠	Name: N/A  Priority: N/A  Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)?  Yes □ No □ N/A ☒
Is the Premises subject to any other Acts or subsidiary regulations (e.g. Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx)	Yes ⊠ No □	Dangerous Goods Safety Act 2004 Waste Avoidance and Resource Recovery Act 2007
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes □ No ⊠	N/A
Is the Premises subject to any EPP requirements?	Yes □ No ⊠	N/A
Is the Premises a known or suspected contaminated site under the Contaminated Sites Act 2003?	Yes □ No ⊠	Classification: N/A Date of classification: N/A