



Application for Licence Amendment

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

Licence Number	L4414/1968/12
Licence Holder	Hanson Construction Materials Pty Ltd
ACN	009 679 734
File Number	DER2017/001316-1
Premises	Herne Hill/Red Hill Quarry 945 Toodyay Rd Red Hill WA 6056 Legal description – Being Lot 11 on Plan 3047 As defined by the coordinates in Schedule 1 of the Revised Licence
Date of Report	6 March 2024
Decision	Revised licence granted

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1. Decision summary

Licence L4414/1968/12 is held by Hanson Construction Materials Pty Ltd (Licence Holder) for the Herne Hill/Red Hill Quarry (the Premises), located at 945 Toodyay Rd Red Hill WA 6056.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L4414/1968/12 has been granted.

The Revised Licence issued as a result of this amendment consolidates and supersedes the existing Licence previously granted in relation to the Premises. The Revised Licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment 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

On 27 September 2023, the Licence Holder submitted an application to the department to amend Licence L4414/1968/12 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendment is sought, following approved category 13 construction and time-limited-operations (TLO) in works approval W6797/2023/1:

- Category 13 operations: crushing, screening and stockpiling of concrete material sourced from the licence holder's concrete batch plants. Includes use of existing crushing and screening plant approved for category 12, a 26.01 ha laydown and processing area and a maximum production capacity of 100,000 tonnes per annum.

This amendment is limited to the addition of category 13 to the Existing Licence only. No changes to the aspects of the existing Licence relating to Category 12 has been requested by the Licence Holder.

Table 1 below outlines the proposed changes to the existing Licence.

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
13	N/A	100,000 tonnes per annum	Crushing, screening and stockpiling of concrete material triggers category 13 under Schedule 1 of the Environmental Protection Regulations 1987 (EP Regulations).

Concrete material is proposed to be crushed for the following purposes:

- Fines
- Hardstand aggregate

- Road base
- Drainage aggregate
- Concrete aggregate.

No other material will be accepted at the premises other than un-used excess concrete from the licence holder's concrete batching plants. Consequently, the Delegated Officer does not consider there to be a risk of the source material containing asbestos, which is commonly found in concrete recycled from building demolition waste.

The licence holder has advised (via works approval W6797/2023/1) that an estimated one to two additional truck movements (via a tipper truck) would be entering and exiting the premises per day. The transport of concrete material to the premises is regulated by Main Roads Western Australia, however the scope of this assessment will include an review of the risks associated with dust from vehicle movement within the premises.

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 operation which have been considered in this Amendment Report are detailed in Table 2 below. Table 2 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	<ul style="list-style-type: none"> • Crushing of material • vehicle movements including delivery and unloading of concrete from trucks • lift-off from stockpiles 	Air/windborne pathway	<ul style="list-style-type: none"> • Use of water within the two water storage dams. • Dust suppression using dedicated water carts. • Automatic water sprays are installed on the primary, secondary, tertiary and quaternary crushers. • Application of speed limits. • Regular road sweeping program is used on the crossover to Toodyay Road. • Water canons are used to reduce dust generation from product stockpiles. The water cart is also installed with a water canon.

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> 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.
Noise	<ul style="list-style-type: none"> Crushing and screening of material Vehicle movements 	Air/windborne pathway	<ul style="list-style-type: none"> Standard noise suppression on machinery.
Sediment laden stormwater	<ul style="list-style-type: none"> Stockpiles Washing material 	Overland runoff	<ul style="list-style-type: none"> Two sediment traps placed strategically to collect storm water runoff from the stockpiles, prior to water entering the southern dam. Ensure settlement traps are regularly cleaned and water retained.
Hydrocarbons	<ul style="list-style-type: none"> Machinery malfunction 	Direct discharge to land	<ul style="list-style-type: none"> None proposed.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder'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 3 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 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Residential Premises	<ol style="list-style-type: none"> 1.7 km west of the proposed activity 2.0 km east of the proposed activity
Aboriginal and heritage sites: Large areas: <ol style="list-style-type: none"> Herne Hill Ochre (place ID: 3721) Red Hill (place ID: 3433) Suzannah Brook (Place ID: 640) Gumbargorra (Place ID: 27112) & Susannah Brook Waugal (Place ID: 3656) Ancestral Owl Stone (Place ID: 26057) More smaller sites 	<ol style="list-style-type: none"> Within premises, overlapping area of proposed concrete laydown and processing area Within premises, overlapping proposed activity area Within premises, 640m north of the proposed activity area Within premises, 700m north of the proposed activity area Within premises 700m north of proposed activity area (on the Heritage Register with a buffer of 250 m in radius)

7. Widarchi Spot 1 (Place ID: 27110) 8. Widarchi Spot 2 (Place ID: 27111) 9. Lizard Trap – Red Hill (Place ID: 27108)	6. >1km north from the proposed activity 7–9. Intersects with the prescribed premises
Red Hill Auditorium (Open-air live music venue)	320m south of the proposed activity area
Environmental receptors	Distance from prescribed activity
Threatened Ecological Communities (TEC): Central Northern Darling Scarp	Located within the prescribed premises, 500m west of the proposed activity area
Surface water: 1. Susannah Brook – surface water line 2. Minor surface water line	1. Located within the prescribed premises, 500m north of the proposed activity area 2. Located within the prescribed premises, 500m west of the proposed activity area
Threatened fauna: 1. <i>Calyptorhynchus latirostris</i> (Carnaby's Cockatoo) 2. <i>Isoodon fusciventer</i> (Quenda, southwestern brown bandicoot)	1. Located within the prescribed premises, 1.35 km west of the proposed activity area 2. 500m 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 those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence Holder 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 Licence Holder'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 Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The Revised Licence L4414/1968/12 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. category 13 activities.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4: Risk assessment of potential emissions and discharges from the Premises operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Operation								
Vehicle and machinery activity on disturbed ground and unsealed roads Transport of concrete within premises boundary Wind – driven dust lifts off from crushed concrete stockpiles	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 5.1	C = Moderate L = Unlikely Medium Risk	N	Existing: <ul style="list-style-type: none">Condition 9 Added: <ul style="list-style-type: none">Condition 1	N/A Existing dust suppression controls are considered sufficient to mitigate the risk of dust emissions from truck movement within the premises. The Delegated Officer also considers the risk of dust lift-off from concrete in trucks within the premises impacting receptors is negligible.
Crushing and screening of concrete delivered from off-site concrete batch plants					C = Moderate L = Unlikely Medium Risk		Added: <ul style="list-style-type: none">Condition 6	Condition 6 has been added ensuring that the crushed material is only sourced from Hanson concrete batch plants.
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 and heritage places	Refer to Section 5.1	C = Moderate L = Unlikely Medium Risk	Y	Existing: <ul style="list-style-type: none">Condition 10Condition 16, table 7 (monitoring)	N/A
Stockpiling, washing material	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or	Susannah Brook and minor surface water line TEC	Refer to Section 5.1	C = Moderate L = Unlikely	Y	Existing: <ul style="list-style-type: none">Condition 4Condition 8Condition 16, table 6	N/A

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
		impacting surface water quality	Threatened fauna		Medium Risk		(monitoring) Added: • Condition 1	
Machinery malfunction	Hydrocarbons	Direct discharge to land impacting vegetation and fauna health	TEC Threatened fauna	Refer to Section 5.1	C = Slight L = Unlikely Low Risk	Y	The <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> apply. Existing: • Condition 5 Added: • Condition 2	N/A

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

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Local Government Authority – City of Swan - advised of proposal 15/12/2023.	<p>Comments received 26/02/2024:</p> <p>The City granted a previous approval regarding the operation of tertiary crushing and screening. An amended Development Approval will be required for the proposed activities. The City has not yet received a formal submission.</p>	<p>It is the Licence Holder's responsibility to ensure they have all relevant planning approvals in place.</p> <p>An instrument granted by the Department only provides a defence for the occupier for offences under Part V, Division 3 of the EP Act, provided the conditions contained within the licence have been complied with and not for any offences under planning legislation. An occupier who begins works on or operates a prescribed premises without the necessary approvals from planning authorities does so at its own risk</p>
Department of Planning, Lands and Heritage (DPLH) advised of proposal 15/12/2023.	<p>Comments received 05/01/2023:</p> <p>1. Confirmation of intersecting aboriginal sites and the prescribed premises, including sites missed:</p> <ul style="list-style-type: none"> Widarchi Spot 1 (Place ID: 27110) Widarchi Spot 2 (Place ID: 27111) Lizard Trap – Red Hill (Place ID: 27108) <p>2. the proposed amendment has the potential to impact Aboriginal Registered Site ID 26057 (Ancestral Owl Stone) through vibration. If there is reasonable potential for impact to this or any other Aboriginal heritage, the Licence Holder will be required to apply for approvals under the <i>Aboriginal Heritage Act 1972</i>.</p>	<ol style="list-style-type: none"> Inclusion of three aboriginal sites in receptors table The licence has existing conditions in place (Condition 10 and Condition 16) that requires the monitoring of ambient noise/vibration and specifies emission limits for the protection of Ancestral Owl Stone. The applicant is reminded of their obligations to seek approvals under other legislation including the <i>Aboriginal Heritage Act 1972</i> as applicable.
Red Hill Auditorium advised of proposal with letter dated 15/12/2023.	No comments received.	N/A
Licence Holder was provided with draft amendment on 01/02/2024.	<p>Comments received 22/02/2024:</p> <p>Requested a change in wording for Condition 6 as the concrete batch</p>	DWER has revised the risk assessment to include the receipt of concrete material from the

	plants are not located within the prescribed premises.	<p>licence holder's off-site concrete batch plants.</p> <p>The Delegated Officer has determined that receiving material from off-site is acceptable, subject to existing dust controls and restrictions on the source and type of material (concrete material from Hanson batch plants). Relevant condition wording has been revised.</p>
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5. Conclusion

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

5.1 Summary of amendments

Table 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
General formatting	<p>The following were updated to reflect the current licence template:</p> <ul style="list-style-type: none"> • Changed the wording of 'shall' to 'must' • Removed redundant introduction section • Added the standard interpretation section • Moved the definitions to a table at the end of the conditions (Table 11). • Updated numbering of conditions and tables • Removed schedule 2
Cover page	Addition of Category 13 and assessed production capacity of 100,000 tonnes per annum.
Updated the Licence History	Updated the licence history to remove redundant information and include this amendment.
New Condition 1 and Table 1	Standard site infrastructure and equipment, their operational requirement, and location listed in Table 1. This table reflects the same table in the works approval W6797/2023/1.
New Condition 2	Modified condition 1.2.2 to update to the latest wording for the condition
New Condition 6	New condition to ensure category 13 material to be stored, screened and/or crushed is only sourced from Hanson concrete batching plants.
Conditions 17 – 20	Updated reporting conditions to the latest template, replacing conditions 4.1.1, 4.1.2, 4.1.3, 4.1.4
Updated Figure 1	Updated, clearer version of figure 1 that displays the premises boundary
Addition of Figure	Figure displaying infrastructure and labelled areas within the premises.

References

Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.

1. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
2. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
3. Hanson Construction Materials Pty Ltd 2023, *Screening Licence Amendment (L4414/1968/12) for a solid waste (concrete) crushing and screening Herne Hill / Red Hill Quarry*, Western Australia