



Application for Licence Amendment

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

Licence Number	L8861/2014/1
Licence Holder	Karratha Recycling Pty Ltd
ACN	163 991 106
File Number	App-0026601
Premises	<p>Karratha Recycling Lot 121 Pindan Road GAP RIDGE WA 6714</p> <p>Legal description: Lot 121 on Deposited Plan 424552 Certificate of Title Volume 4027 Folio 394</p> <p>As defined by the Premises map attached to the Revised Licence</p>
Date of Report	8 May 2025
Decision	Revised licence granted

Grace Heydon

MANAGER WASTE INDUSTRIES

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

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1. Decision summary

Licence L8861/2014/1 (L8861) is held by Karratha Recycling Pty Ltd (Licence Holder) for Karratha Recycling (the Premises), located at Lot 121 Pindan Road.

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 L8861 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 12 February 2025, the Licence Holder applied to the department to amend Licence L8861 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act).

The following amendments are being sought:

- Remove Lot 120 from the Premises.
- Amend the Licence to include Categories 35, 36, and 61A only.

The Application is for an amendment to the Existing Licence L8861 at Lot 121 Pindan Road, Gap Ridge. The Licence Holder has recently sold Lot 120 to Pure Environmental WA Pty Ltd (Pure Environmental) and therefore needs to amend the Existing Licence to remove Lot 120 from the Premises. The License Holder will continue to operate the Asphalt manufacturing infrastructure at the Premises, and has requested to retain Category 61A for the Reclaimed Asphalt Pavement (RAP) storage area.

Pure Environmental has a concurrent Licence Application for Lot 120. A separate Decision Report has been prepared for the Pure Environmental Licence.

This amendment is limited only to Categories 35, 36, and 61A activities from the Existing Licence. No other changes have been requested.

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

Table 1: Proposed design or throughput capacity changes

Category	Current design capacity	Proposed design capacity	Description of proposed amendment
35	40,000 tonnes per annual period	40,000 tonnes per annual period	Remove Lot 120 from the Premises.
36	20,000 tonnes per annual period	20,000 tonnes per annual period	

61A	20,000 tonnes per annual period	20,000 tonnes per annual period	
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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	Operation of Asphalt infrastructure. Diesel burner Machinery movements	Air / windborne pathway	Water cart deployed onsite. Restricted vehicle speed due to size of Premises. Wind shields on cold feed bins. Baghouse dust collection system and reuse of captured dust as filler material in the asphalt mix. Filter, high level alarm and auto shutoff system on imported filler silo.
Noise			Compliance with the <i>Environmental Protection (Noise) Regulations 1997</i> (Noise Regulations). Size of premises restricts vehicle speeds.
Odour	Diesel burner exhaust. Bitumen fumes emitted from holding tank vents. Bitumen fumes emitted during loading and storage of PMB and bitumen emulsion.		Premises siting. Hot oil heating system for kettles are set on minimum practical operational temperatures for normal process requirements. Over temperature alarms are installed on the drum dryer and auto shut off systems for the hot oil system.
Bitumen	Bitumen holding		Water bubblers are installed on bitumen kettle breather pipes.

Emission	Sources	Potential pathways	Proposed controls
fumes containing VOCs and H ₂ S (fugitive)	<p>tank vents.</p> <p>Polymer during transfer into screw feed hopper.</p> <p>Loading and unloading raw materials and product.</p>		<p>Gaskets are installed on kettle hatches.</p> <p>Hinged flaps are installed on kettle over flow outlet to prevent emissions.</p> <p>Enclosed slat conveyor.</p> <p>Enclosed hotmix storage silos.</p> <p>All trucks carrying hotmix asphalt are covered by tarpaulins.</p> <p>Emulsion Plant and PMB Plant are to be located more than 40 m away from the premises boundary Lot 121.</p> <p>PMB and bitumen emulsion to be transferred via a hose from mill to enclosed storage tankers or containers for transport off-site.</p> <p>Emulsion Plant and PMB Plant will conform to the requirements of Karratha Asphalt's quality, safety and environmental management certification (ISO9001, AS4801 and ISO14001).</p> <p>Stack – 6 m height.</p> <p>Emission limits.</p> <p>Baghouse and drum dryer.</p> <p>Monitoring systems are in place to ensure effective baghouse operation.</p>
Contaminated Stormwater	<p>Liquid waste from RAP</p> <p>Stormwater interaction with spilled or leaked raw materials (bitumen, chemicals, polymers).</p>	Seepage to soils and overflow to surface water	<p>RAP is stored in a separate area which directs stormwater away from the storage area.</p> <p>Chemicals to be held in bunded storage to prevent interaction with stormwater.</p> <p>Material spilled during the production of bituminous products will be covered and soaked up with cracker dust and added to the reclaimed asphalt pavement pile to be used in asphalt production.</p>

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 because 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
Commercial Premises	Adjacent to the Premises
Stayover Kingfisher Village	1.4 km southeast of the Premises
Cievo Karratha Village	2.05 km northeast of the Premises
Residential Properties	2.5 km northeast of the Premises
Environmental receptors	Distance from prescribed activity
Pilbara Groundwater Area (RIWI Act 1914) <ul style="list-style-type: none"> Groundwater typically 6-10 m below existing ground level (Hypersaline to brackish) 	Premises is situated within this designated area
Pilbara Surface Water Area (RIWI Act 1914)	Premises is situated within this designated area
Threatened ecological communities (TEC). <ul style="list-style-type: none"> Roebourne Plains gilgai grasslands 	Premises is situated within the mapped extent of this TEC
Surface water lines <ul style="list-style-type: none"> Seven Mile Creek. Minor non perennial water course. 	500 m east of Premises

3.2 Risk assessment

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and considers 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 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 L8861 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises.

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				
Asphalt manufacturing unloading, loading and storage of material Vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenity	Adjacent commercial premises	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	Condition 12	N/A
	Noise	Air/windborne pathway causing impacts to health and amenity	Stayover Kingfisher Village 1.4 km southeast of Premises	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	N/A
	Odour	Air/windborne pathway causing impacts to health and amenity	Civeo Karratha Village 2.05 km northeast of Premises	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 1, 2, 3, 4, 5, 6, 7, 9, 10, and 21	N/A
	Bitumen fumes containing VOCs and H ₂ S (fugitive)	Air/windborne pathway causing impacts to health and amenity	Residential properties 2.5 km northeast of Premises	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 1, 4, 5, 6, 9, 10, 15, 16, 18, and 21	N/A
	Contaminated stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Threatened ecological community. Seven Mile Creek 500 m east of Premises.	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	Condition 11	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 underlined text** depicts additional regulatory controls imposed by the 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 advised of proposal on 26 March 2025.	The City of Karratha replied on 31 March 2025 advising: <i>"The City notes the amendment is in accordance with the existing development approval (as attached). As such, the City has no comment on the proposal."</i>	Noted
Licence Holder was provided with draft amendment on 17 April 2025	Refer to Appendix 1	Refer to Appendix 1

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
Premises details	Remove Lot 120 from the Premises.
Prescribed Premises Table	Remove Category 61 from Licence
Condition 1	Delete all Category 61 waste acceptance waste – leave RAP in condition table.
Condition 3	Delete all Category 61 but leave RAP processing
Condition 4	Existing Condition deleted from Licence as this is liquid waste Containment Infrastructure.
Condition 6	Existing Condition deleted from Licence as no liquid waste ponds at the Premises.
Condition 15	Existing Condition deleted groundwater monitoring requirement.
Condition 16	Six-monthly sampling deleted from condition as it was for groundwater monitoring for pond integrity. Annual Monitoring to remain for monitoring of point source emissions to air.

Condition 23	Existing Conditions deleted from Licence as Groundwater monitoring is not required.
Condition 25	Deleted condition 23 from books – groundwater monitoring not required.
Condition 28	Amended Table 10 to delete Category 61 requirements.
Condition 29	Deleted notification requirements for Category 61 activities from Existing Condition Table 11.
Definitions Table	Amended as required for Amended Licence.
Schedule 1 Maps	Update Premises Map to remove Lot 120 from Premises. Removed Monitoring Bore Map.

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.

Appendix 1: Summary of Licence Holder's comments on risk assessment and draft conditions

Amendment Report	Summary of Licence Holder's comment	Department's response
Table 2 - Dust	Wind shields on cold feed bins are not practical in a cyclonic environment. The amount of dust generated from filled cold store bins is negligible, and the wind shields would serve no real purpose. They also increase the risk of overfilling cold feed bins that can lead to blockages and damage to the plant.	Removed from Table 2
Table 2 - Dust	We do not have an imported filler silo associated with our asphalt plant. This control should be removed.	Removed from Table 2
Table 2 - Odour	There is no hot oil heating system for the bitumen storage kettles. A combination of Diesel fired burners and electrical heating elements are used. All have temperature control shutoff systems.	Removed from Table 2 – replaced with Diesel fired burners and electrical heating elements are used and all have temperature control shutoff systems
Table 2 – Bitumen Fumes	<p>It has never been a requirement previously to have water bubblers installed on bitumen tank breather pipes, for good reason. It is not practical in a cyclonic region where damage and the risk of projectiles is a real problem.</p> <p>Also, water coming in contact with hot bitumen causes an instant boiling of the water. The risk of water being sucked back in the tank during draw down presents the real possibility of an explosion.</p> <p>The site is located in a remote, sparsely populated, dedicated noxious zoned industrial estate with the closest sensitive noncommercial receptor is over 1.4km away. The need for breather pipe filtration in this case appears superfluous.</p>	Removed from Table 2
Table 2 – Bitumen Fumes	Tarpaulins on trucks are not sealed and as such do very little in containing bitumen fumes, of which there are minimal amounts once the asphalt has been produced. Tarpaulins are mainly used to retain heat in asphalt for longer travel times to the job site. Tarpaulins are used where practicable, but are also difficult to maintain in the hot, humid and dusty Pilbara environment, so having a tarpaulin on every truck for every load does not seem practical. Again, being in a remote region means interaction with sensitive receptors is very minimal.	Removed from Table 2

Amendment Report	Summary of Licence Holder's comment	Department's response
Table 2 – Air Emissions	A 6m stack is not practical in a cyclonic region. The working stack height is approx. 1.5m with a 4.5m extension added to make up the full 6m stack height. The wind speed from the baghouse fans means that any fumes are vented up and away from the plant and is not much difference whether the stack extension is installed or not. The stack is installed for stack tests to conform the testing regulations, but needs to be removed during cyclone season. The stack cannot be sufficiently secured to remain in place during a cyclonic event. The work and cost required to remove and install that stack is a greater risk than not having the stack on. Again, the plant is located in a sparsely populated, dedicated commercial noxious zoned area far from any sensitive receptors, and this condition appears to present excessive risk for the environment the plant is located in. This has been discussed in a recent DWER audit with the recommendation to apply for a dispensation of the requirement to have the stack installed at all times, instead only being installed as required for stack testing.	<p>Noted. Changed wording to: <i>Stack – 1.5 m working height (a 4.5m extension can be added if required but needs to be removed during cyclone season).</i></p> <p>The Delegated Officer notes the advice about Licence Holder applying for dispensation (amendment) of the requirement of the stack to be installed at all times. The amendment submitted by the Licence Holder at that time will assess the request.</p>
Condition	Summary of Licence Holder's comment	Department's response
Condition 9 Table 4 Emissions to Air	Air Emission point height 6 m.	<p>It is noted that condition 9 requires the Emission point height of 6m.</p> <p>It is noted Condition 10 requires point source emissions limits to air.</p> <p>It is noted that Condition 18 requires monitoring of point source emissions to Air and the sample Frequency is Annual and condition 14 defines annual sampling. As this is a single sample per year the sample can be collected outside of the Cyclone season. At this time the 4.5m extension to the sample point can be added.</p> <p>Condition 9 Table 4 has been an existing condition for many years.</p> <p>No change – as outlined above the Licence Holder has advised a separate amendment application will be submitted for this matter.</p>