



Application for Licence Amendment

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

Licence Number	L8572/2011/2
Licence Holder	Western Resource Recovery Pty Ltd
ACN	099 144 180
File Number	DWERVT15748
Premises	Western Resource Recovery Hampton Location 221, Portion of Reserve 42000 Celebration Road, BOULDER WA 6429 As defined by the premises on the issued licence
Date of Report	3 February 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

The Delegated Officer has determined to make amendments to licence L8572/2011/2.

This Amendment Report documents the amendments made pursuant to section 59 and 59(B) of the *Environmental Protection Act 1986* (EP Act).

This Amendment Report documents the assessment of potential risks to the environment and public health from the construction and operation of the concrete hardstand at the Premises. As a result of this assessment, Revised Licence L8572/2011/2 has been granted.

The decision report for the licence will remain on the department's website for future reference and will act as a record of the department's decision making.

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 9 October 2024, the Licence Holder submitted an application to the department to amend Licence L8572/2011/2 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Construction of a self-bunded concrete hardstand transfer pads for the storage of mixed solid waste prior to the transportation of wastes to relevant landfill facilities.

No changes to the throughput aspects of the existing Licence relating to Categories 61, 61A and 62, have been requested by the Licence Holder as a part of this amendment.

2.3 Premises operations

The following information in relation to the process of waste acceptance at the premises incorporating the use of the proposed self-bunded concrete hardstand transfer pads has been summarised from the application:

- Before accepting a load of waste, the load is checked to ensure that it matches the waste type recorded on the control waste tracking form (CWTF), and is consistent with the waste facility's licence.
- Accepted loads of liquid waste are placed into a 50,000 litre concrete pits. If the waste is received contained in drums or IBC's, a fork hoist is used to move the container to the pit area for transfer into the pit. If the waste is a bulk consignment, vacuum trucks are used to empty their barrels directly into the process pits.
- A composite sample of the waste is taken to the laboratory for determining the correct amounts of reagent to aid in the solidification of metals and reduction of organic material.
- The reagents are added to the liquid in the pit and mixed with a backhoe for a minimum of half an hour.
- The precipitated material is allowed to settle and separate from the liquid fraction over a period of > 6 hours.
- The liquid fraction is pumped from the top of the pit and held in settling tanks.

- The remaining sludge/solids in the pits are blended with lime and sand with a backhoe for up to 6 hours until the consistency of the waste is spadable.
- Following the absorption process and once the waste is spadable it will be removed from the pits using the backhoe & front-end-loader to the new concrete hardstand transfer pads, where it will be left to cure for approximately seven days while the material is sampled and tested to confirm the material contamination level.
- Sampling is undertaken in accordance with the sampling procedure in the *Landfill Waste Classification and Waste Definitions 1996* (as amended 2019) (LWCWD).
- Samples collected are sent to a NATA accredited laboratory for analysis. Samples are analysed for leachates using Australian Standard Leaching Procedure (ASLP) test procedure.
- The results from the soil analysis are evaluated against limits provided in the LWCWD.
- The results are forwarded to relevant landfill facilities. Once the landfill confirms the waste can be accepted to their facility the waste will then be transported for disposal.

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 Amendment Report are detailed in Table 1 below. Table 1 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust		Air / windborne pathway	No controls provided However, The Delegated Officer is aware that the provisions of section 49 of the EP Act is sufficient to regulate dust emissions during construction.
Noise			No controls provided However, The Delegated Officer is aware that the activities at the Premises will need to comply with the <i>Environmental Protection (Noise) Regulations 1997</i> . Any works on a Sunday or public holiday will

Emission	Sources	Potential pathways	Proposed controls
			need to comply with the prescribed standard for noise emissions as outlined in Regulation 7 unless prior consent is given in accordance with Regulation 13(3).
Operation			
Dust	Acceptance, handling, consolidation, treatment, and storage of liquid and solid waste, crushing of drums	Air / windborne pathway	Onsite speed limited to 10 km/hr and wetting down of roads when required.
Noise	Acceptance, handling, consolidation, treatment, and storage of liquid and solid wastes Crushing of drums	Air / windborne pathway	Compliance with the Environmental Protection (Noise) Regulations. Operating hours (7am to 3:30pm, Mon – Friday).
Odour	Acceptance, handling, consolidation, treatment, and storage of liquid and solid waste,	Air / windborne pathway	Adequate distance from sensitive receptors with nearest residential property approximately 1.4 km north of the premise boundary. Daily in house ambient boundary monitoring for Ammonia (NH ₃), Sulphur dioxide (SO ₂), Hydrogen Sulphide (H ₂ S), Carbon monoxide (CO) and Nitrogen dioxide (NO ₂) carried out as controls in place to detect and manage any odour issue arising in relation to the operations on site.
Containment loss or spills to ground	Storage of mixed solid wastes on the concrete hardstand	Seepage and run-off to soil and groundwater	Will be stored on hardstand constructed of concrete with bunds. Spillages will be cleaned up immediately using onsite spill kits and disposed of at an appropriate facility. All staff handling waste material to be appropriately trained.
Fire/smoke	Fire/smoke in the event of a fire incident	Air / windborne pathway	Fire hydrants, fire hose-reels, fire extinguishers and fire blankets available onsite. Staff inducted on site emergency plan, fires safety and first aid.
Fire wash and contaminated stormwater	Release of fire water in the event of fire extinguishing	Discharge to land and infiltration to groundwater	Firefighting wash water and other waste resulting from firefighting activities will be captured and contained on the premises. All excess stormwater run-off from hardstand areas will be contained within the site through

Emission	Sources	Potential pathways	Proposed controls
			a series of blind sumps. Excess stormwater is pumped out of the blind sumps as required and managed on-site as part of the treatment process.
Vermin / pets	Storage of mixed solid wastes	Air/windborne pathway or transmission via fauna	Use of traps and/or baits to deter and/or control vermin, as well as engaging professional pest control subcontractors. Frequent removal of solid and treated waste from the premises.
Disposal - High contaminants- post treatment	Contaminant present in remediated soil	Direct Discharge-contamination of disposal area and groundwater	The treated waste will be sampled and tested following the LWCWD methodology to determine relevant landfill for disposal. Samples are analysed for chemical contents at a NATA accredited laboratory. Leachate analysis are also carried out.

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 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 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	The closest residential receptor to the premises is the town-site of South Boulder, located approximately 1.4 kilometres to the north.
Boulder Township	Located approximately 2 kilometres to the north.
BP Kalgoorlie truck stop	Located approximately 300 metres to the north-west of the premises.
Environmental receptors	Distance from prescribed activity
Hannans lake	The nearest major water natural water body is Hannan's Lake, which is a normally-dry ephemeral-lake located immediately to the east of the premises.
Public Drinking Water Supply Area	The premises is not located within a Public Drinking Water Supply Area (PDWSA). Hannan's Lake is not a scheduled PDWSA. Hypersaline groundwater. No

	beneficial uses of groundwater in the site vicinity.
Groundwater	Depth to groundwater encountered at approximately 2 – 3mbgl.

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) 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 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 3.

The Revised Licence L8572/2011/2 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. prescribed premises activities associated with categories 61 defined under the EP Regulations.

The conditions in the Revised Licence 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 events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Construction								
Construction of bundled concrete pads Vehicle movements	Dust	Air / windborne pathway causing impacts to health and amenity	Residential premises located 1.4 km north of the Premises boundary	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	N/A	The Delegated Officer is aware that dust Emission can be regulated under the general provisions of the EP Act.
	Noise			Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	N/A	Excessive noise emissions can be regulated under the <i>Environmental Protection (Noise) Regulations 1997</i> (EP Noise Regulations)
Operation								
Storage of treated/mixed solid wastes, vehicle movements on the premises, operation of machinery and equipment	Dust	Air / windborne pathway causing impacts to health and amenity	Residential premises located 1.4 km north of the Premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions ,1 2, 6, 9, 13, 14, 24, 25, 26 and 29	NA The Delegated Officer considers dust emissions associated with operational activities can be adequately regulated by the general provisions of the EP Act.
	Noise	Air / windborne pathway causing impacts to health and amenity	Residential premises located 1.4 km north of the Premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 6, 24, 25, 26 and 29	NA Noise emissions may also be regulated under the <i>Environmental Protection (Noise) Regulations 1997</i> .

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
	Odour	Air / windborne pathway causing impacts to health and amenity	Residential premises located 1.4 km north of the Premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 1, 6, 15, 18, 19, 20, 24, 25 and 29	The Delegated Officer considers that emissions can also be regulated under s49 of the EP Act.
	Spills to ground	Runoff to drains or seepage through hardstand and infiltration to soil and groundwater causing impacts to groundwater quality	Residential premises located 1.4 km north of the Premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 1, 6, 7, 11, 12, 23, 24, 26, 28, 29 and 31	N/A Discharges to the environment may also be regulated under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> .
	Vermin/pest	Air/windborne pathway or transmission via fauna	Residential premises located 1.4 km north of the Premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 1, 9, 23, 24, 25 and 29	N/A
Fire - Abnormal operations	Potentially contaminated stormwater/fire fighting water	Overland flow and subsurface seepage causing impacts on human health, soil and groundwater quality	Residential premises located 1.4 km north of the Premises boundary Surface water within Hannans lake	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 1, 10, 11, 23, 24 and 26	N/A Discharges to the environment may also be regulated under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> .
High contaminants level-post treatment	Contaminants such as heavy metals,	Direct Discharge	Contamination of disposal area and groundwater	Refer to Section 3.1	C = Minor L = Unlikely	Y	Conditions 2,3,4, 6, 18, 23, 24,25	NA The Delegated Officer considers that testing

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
	hydrocarbons present in remediated soil				Medium Risk		and 31	requirements on the Licence will determine relevant landfill for disposal.

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

4. Consultation

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

Table 4: Consultation

Consultation method	Comments received	Department response
Licence Holder was provided with draft amendment on 20/1/2025.	The Licence Holder provided comments on 23 January 2025.	Refer to Appendix 1
Local Government Authority (City of Kalgoorlie Boulder advised of proposal on 10/01/2025.	City of Kalgoorlie Boulder provided comments on 19 January 2025	Refer to Appendix 2

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 5 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 5: Consolidation of Licence conditions in this amendment

Licence condition	Proposed amendments
Table 1, Row 11	Allows for the storage of mixed waste for curing and prior to transportation to a licence landfill in Table 1.
6	Allows for the consolidation of wastes in the new self-bunded concrete pads.
31	Allows construction of the two new self-bunded concrete pads.
32	Provision of Compliance Report once construction has occurred.
33	Requirements of the Compliance Report.
Schedule 2	New Map Figure 5 showing the location of the self-bunded concrete pad area for construction and operations.

References

1. DER July 2015. *Guidance Statement: Regulatory principles*. Department of Environment Regulation, Perth. Accessed at www.dwer.wa.gov.au
2. DER, October 2015. *Guidance Statement: Setting conditions*. Department of Environment Regulation, Perth. Accessed at www.dwer.wa.gov.au
3. DER, August 2016. *Guidance Statement: Licence duration*. Department of Environment Regulation, Perth. Accessed at www.dwer.wa.gov.au
4. DER, November 2016. *Guidance Statement: Environmental Siting*, Perth, Western Australia. Accessed at www.dwer.wa.gov.au
5. DER, February 2017. *Guidance Statement: Risk Assessments*. Department of Environment Regulation, Perth. Accessed at www.dwer.wa.gov.au
6. DWER, June 2019. *Guideline: Decision Making*. Department of Water and Environmental Regulation, Perth. Accessed at www.dwer.wa.gov.au
7. DWER, June 2019. *Guideline: Industry Regulation Guide to Licensing*. Department of Water and Environmental Regulation, Perth. Accessed at www.dwer.wa.gov.au

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

Condition	Summary of applicant's comment	Department's response
Condition 6 Table 3 Row 2 – storage of solid waste	Typographical changes requested. Requested to clarify that only fixated contaminated waste will be stored on the hardstand area	Changes implemented as requested.
Condition 32A	Cross referencing typographical error noted	Corrected

Appendix 2: Summary of Stakeholder comments

Stakeholder	Summary of Stakeholder comment	Department's response
City of Kalgoorlie Boulder (CKB)	<p>The CKB provided the following comments:</p> <ul style="list-style-type: none"> ▪ As the licence is under review the City would like to bring to your attention several ongoing concerns from residents regarding the operations of this WRR waste management facilities which is also adjacent to the sewer treatment plant. The city has received numerous complaints not only about sewer-related odours from the adjacent property but also about strong hydrocarbon odours affecting the area, from WRR. ▪ The city is also concerned about the hard stand built for bunding of chemical storage. ▪ Is the licence going to be restricted to specific type of chemicals? Due to reaction that may occur of various chemicals brought on site and may come in contact, that site operators have full knowledge to make informed decisions. 	<p>Noted</p> <p>The Delegated Officer is aware that WRR only accepts and stores J100 and J120 control waste that may contain low levels of hydrocarbon in plastic intermediate bulk containers, therefore odour is considered low risk.</p> <p>The Delegated Officer is also aware that storage of hydrocarbon are regulated by Department of Mines, Industry Regulation and Safety (DMIRS) and the concrete pad will be used for storing fixated contaminated waste only. Chemicals will not be stored on the proposed concrete pads.</p>