



Application for Licence Amendment

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

Licence Number	L8513/2010/2
Licence Holder	Shire of Merredin
ABN	87 065 676 484
File Number	ILS2013/004002-1~1
Premises	Merredin Chandler Road Landfill Lot 500 on Deposited Plan 66111 Chandler Road MERREDIN WA 6415 As defined by the premises map in Schedule 1 of the Revised Licence
Date of Report	02 May 2023
Decision	Revised licence granted

Abbie Crawford
A/MANAGER, WASTE INDUSTRIES

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

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1. Decision summary

L8513/2010/2 is held by the Shire of Merredin (licence holder) for the Merredin Chandler Road Landfill (the premises), located at Lot 500 on Deposited Plan 66111, Chandler Road, Merredin.

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 L8513/2010/2 has been granted.

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 Amendment summary

The Merredin Chandler Road Landfill is a licensed Category 61 liquid waste facility, Category 62 solid waste depot, and Category 64 Class II landfill site. The premises is located approximately 3 kilometres north of the Merredin town centre.

Currently, the following waste types are accepted onto the premises under L8513/2010/2:

- Inert Waste Type 1
- Inert Waste Type 2
- Special Waste Type 1 (Asbestos)
- Special Waste Type 2 (Biomedical Waste)
- Putrescible Waste
- Clean Fill
- Green waste
- Hazardous Waste (limited to waste oil and batteries)
- Septage wastes
- Waste from grease traps resulting from food preparation
- Fire debris and washwater
- Stormwater, pondwater and low strength wastewater

On 26 January 2023, the licence holder submitted an application to the department to amend licence L8513/2010/2 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Approval for the operation of an e-waste disposal point, to allow electronic waste to be stored separately from other waste on-site. The e-waste is to be stored in metal containment cages that are raised off the ground by pallets over a 150 mm thick concrete hardstand and covered by weatherproof coverings, to prevent stormwater runoff and leachate entering the local environment. The e-waste will be temporarily stored on the premises then transferred off-site for

processing.

- Increase throughput capacity of waste accepted for disposal under Category 64 by 5,000 tonnes per year to 10,000 tonnes per year. The increase in volume will not change the operational activities carried out under the existing licence.

This amendment is limited only to changes to Category 62 and 64 activities of the existing licence. No changes to the aspects of the existing licence relating to Category 61 have been requested by the licence holder.

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

Table 1: Proposed design and throughput capacity changes

Category	Current throughput capacity	Proposed design and throughput capacity	Description of proposed amendment
61	200 tonnes per annual period	200 tonnes per annual period	No change.
62	2,000 tonnes per annual period	2,000 tonnes per annual period (inclusive of 10 tonnes of e-waste per annual period)	No change to total throughput capacity. Current total throughput capacity to include 10 tonnes of e-waste per annual period.
64	5,000 tonnes per annual period	10,000 tonnes per annual period	Increase throughput by 5,000 tonnes to a maximum combined total of 10,000 tonnes per annual period

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
Leachate	Acceptance and storage of e-waste	Infiltration into soil and groundwater Overland runoff into surface water bodies	E-waste to be placed in containment cages on an impermeable surface.
Sediment laden stormwater / contaminated stormwater	Acceptance and storage of e-waste	Overland runoff into surface water	E-waste placed in containment cages on an impermeable surface.
Odour	Acceptance and burial of 10,000 tonnes of waste	Air/windborne pathway	No additional controls proposed Existing licence controls: Cover is applied and maintained on landfilled wastes
Dust	Acceptance and burial of 10,000 tonnes of waste	Air/windborne pathway	No additional controls proposed Existing licence controls: Cover is applied and maintained on landfilled wastes
Wind-blown litter	Acceptance and burial of 10,000 tonnes of waste	Air/windborne pathway	No additional controls proposed Existing licence controls: Cover is applied and maintained on landfilled wastes Wind-blown waste is collected on at least a weekly basis and returned to the tipping area. Erect and maintain suitable fencing
Leachate	Acceptance and burial of 10,000 tonnes of waste	Infiltration into soil and groundwater Overland runoff into surface water bodies	No additional controls proposed Existing licence controls: The separation distance between the base of the landfill and the highest groundwater level shall not be less than 3m
Sediment laden stormwater /	Acceptance and burial of 10,000	Overland runoff into	No additional controls proposed

Emission	Sources	Potential pathways	Proposed controls
contaminated stormwater	tonnes of waste	surface water	<p>Existing licence controls:</p> <p>The separation distance between any existing or new tipping areas and any naturally occurring surface water body shall not be less than 100 metres.</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 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 dwellings	<ul style="list-style-type: none"> No residential properties within 1 km of the premises
Environmental receptors	Distance from prescribed activity
Specified Ecosystems: <ul style="list-style-type: none"> <i>Reserve 21487 Public Recreation - Class C and wetlands of wheatbelt</i> <i>Reserve 12701 - Class A</i> 	<ul style="list-style-type: none"> Approximately 300 m to the south Approximately 400 m to the east
Threatened fauna - <i>Aganippe castellum</i> (Tree-Stem Trapdoor Spider)	<ul style="list-style-type: none"> Found within 2 km radius
Surface water area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i>	<ul style="list-style-type: none"> Situated in the Avon River System
Non-perennial watercourses	<ul style="list-style-type: none"> 350 m to the south 500 m to the north-east 980 m to the west
Groundwater	<ul style="list-style-type: none"> ~14-20 mbgl



Figure 1: Sensitive receptors in a 1 km radius

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 L8513/2010/2 that accompanies this amendment report authorises emissions associated with the operation of the premises i.e. e-waste storage 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 during 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 movements	Dust	Air/windborne pathway causing impacts to ecosystem health and amenity	Non perennial watercourses located 500m north-east and 350 m south	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Conditions 3, 5	N/A
Acceptance and storage of e-waste	Contaminated stormwater/leachate	Overland runoff potentially causing ecosystem disturbance and impacting surface water quality	Non perennial watercourses located 500m north-east and 350 m south	Refer to Section 3.1	C = Moderate L = Rare Medium Risk	Y	Conditions 1, 2 <u>Condition 3</u>	Condition 3 has been amended to ensure e-waste is appropriately protected from the weather. The delegated officer considers it appropriate to cover e-waste stored outside to prevent the contamination and subsequent runoff of stormwater.
Increased putrescible waste throughput	Dust	Air/windborne pathway causing impacts to ecosystem health and amenity	Non perennial watercourses located 500m north-east and 350 m south	No additional controls provided	C = Minor L = Rare Low Risk	Y	Conditions 3, 5	N/A
	Contaminated stormwater	Overland runoff potentially causing ecosystem disturbance and impacting surface water	Non perennial watercourses located 500m north-east and 350 m south	No additional controls provided	C = Moderate L = Rare Medium Risk	Y	Conditions 3	N/A

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Risk Event					Risk rating ¹	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	C = consequence L = likelihood			
		quality						
	Leachate	Seepage into groundwater	Groundwater ~14-20 mbgl Non perennial watercourses located 500m north-east and 350 m south	No additional controls provided	C = Moderate L = Unlikely Medium Risk	Y	Conditions 1, 3	N/A
	Windblown litter	Air/windborne pathway causing impacts to amenity	Non perennial watercourses located 500m north-east and 350 m south	No additional controls provided	C = Minor L = Rare Low Risk	Y	Conditions 5, 6, 7	N/A
	Odour	Air/windborne pathway causing impacts to amenity	No residential receptors within 1 km of the premises	No additional controls provided	C = Minor L = Rare Low Risk	Y	Condition 5	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
Licence Holder was provided with draft amendment on 19/04/2023	On 01/05/2023 the licence holder noted an incorrect AACR reporting date on the updated licence and requested to have it changed from 30/04/2023 to 30/08/2023, as it was originally designated. The licence holder otherwise had no further comments and requested the instrument to be processed to final issue.	AACR reporting date changed to reflect the correct reporting date.

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
Prescribed premises category description table on instrument cover letter	Table formatted to reflect updated instrument template. Amend throughput of Category 64 to 10,000 tonnes per annual period.
1 Table 1	Addition of e-waste to the accepted waste types. Changed Quantity limit / annual period for Category 64 from 5,000 to 10,000.
5 Table 4	Cover requirements for the animal pit added to licence.
8	Condition reworded
14 Table 5	E-waste added to monitoring parameter for inputs and outputs from the premises.
18 and 19	Conditions removed as they were part of the bulk reporting condition amendment.
20 and 21	Conditions removed as they animal pit has already been constructed in accordance with the application form.

Definitions table Table 9	Addition of designated green waste burning area, e-waste, Fire Control Officer.
Schedule 1 Figure 1	Premises map updated to display waste infrastructure at the premises.
Schedule 1 Figure 2	Figure 2 removed due to redundant reporting requirements.

Table 7: Consolidation of licence conditions in this amendment

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Expiry Date: 05 October 2019	Expiry Date: 05 October 2025	In accordance with the Notice of Amendment of Licence Expiry Dates (29/04/2016)
N/A	Prescribed Premises Category table	N/A	Revised licensing format.
N/A	Licence history table	N/A	Updated to reflect the consolidation of conditions from previous licence amendment notice to control green waste disposal, and the changed bulk reporting requirements.
1.2.4	Green waste storage	N/A	Condition removed from licence.
1.2.8	Prevent green waste burning on premises	8	Burning of green waste permitted on premises.
1.2.3 Table 1.2.2	Waste processing	2 Table 3	Consolidated from Amendment Notice 1 and revised to current licensing format.
1.3.4	Burning of greenwaste	3 Table 2	Revised to allow the storage and burning of green waste on the premises. Removal of the process requirement to remove greenwaste from premises before burning.
1.2.3 Table 3.3.1	Notification requirements	22 Table 8	Consolidated from Amendment Notice 1. Scheduled greenwaste burning event added in as parameter that requires notification to the director 24 hours prior to a burning event.
N/A	Records	Condition 24	New numbering and update to wording format.
Schedule 1: Maps	Premises map	Schedule 1: Maps	New naming convention and updated to show waste infrastructure.

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Interpretation and definitions	N/A Definitions and Table 2	Revised to current licensing format. Definitions updated.

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: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input 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 checked="" type="checkbox"/>	Current licence number:	L8513/2010/2	
		Relevant works approval number:		N/A <input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:		None <input type="checkbox"/>
Date application received	26/01/2023			
Applicant and Premises details				
Applicant name/s (full legal name/s)	Shire of Merredin			
Premises name	Merredin Chandler Road Landfill			
Premises location	Lot 500 on Deposited Plan 66111 MERREDIN WA 6415.			
Local Government Authority	Shire of Merredin			
Application documents				
HPCM file reference number:	ILS2013/004002-1~1			
Key application documents (additional to application form):	Description of Proposed Activities Proof of Occupier Status Premises Map and Schematic Design Layout of Proposed E-Waste Area			
Scope of application/assessment				

Summary of proposed activities or changes to existing operations.	<p>Licence amendment:</p> <p>Applicant requests approval for the operation of an e-waste disposal point, to allow electronic waste to be stored separately from other waste onsite. Allowing for recycling where possible. w-waste will be stored in cages over 1.5m x 1.5m hardstand.</p> <p>The Applicant also wishes to increase the waste acceptance volume under Category 64 to cater for the waste generation of the Local Government Authority.</p>
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Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 61: Liquid waste facility	200 tonnes per annual period	N/A
Category 62: Solid waste depot	2,000 tonnes per annual period	No change. Current capacity to include acceptance of e-waste at a maximum of 10 tonnes per annual period.
Category 64: Class II putrescible landfill site	5,000 tonnes per annual period	Increase to maximum combined total of 10,000 tonnes per annual period

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: N/A 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"/>	N/A
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
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"/>
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	N/A

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: N/A Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: Goldfields
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
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>)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A

<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Classification: possibly contaminated – investigation required (PC–IR) Date of classification: 14 March 2014.</p>
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