

Amendment Report

Application for Licence Amendment

Part V Division 3 of the Environmental Protection Act 1986

Licence Number	L8651/2012/1
Licence Holder	Waroona Resources Pty Ltd
ACN	169 962 421
File Number	DWERT1892
Premises	Premium Waste Management
	Lot 15 Richards Road
	WAROONA WA 6162
	Legal description –
	Lot 15 on Deposited Plan 59265
	Certificate of Title Volume 2699 Folio 387
	As defined by the coordinates in Schedule 1 of the Revised Licence
Date of Report	16/12/2021
Decision	Revised licence granted

MANAGER WASTE INDUSTRIES REGULATORY SERVICES

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

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1. Decision summary

Licence L8651/2012/1 is held by Waroona Resources Pty Ltd (Licence Holder) for the Premium Waste Management facility (the Premises), located at Lot 15 Richards Road, Waroona.

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 L8651/2012/1 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

2.2.1 Received application

On 18 January 2021, the Licence Holder submitted an application to the department to amend Licence L8651/2012/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The application initially sought the following amendments:

- Update the landfill area map with the revised design figure contained in recently issued works approval W6362/2020/1. The number of proposed cells in the map is reduced from 14 to 13 within the same landfill area.
- Allow for the processing of up to 40,000 tonnes per annual period of asbestos contaminated soils under Category 61A. The Licence Holder proposed to mechanically screen the soil through a 10 mm aperture to produce an asbestos waste for landfilling and remediated soil for use onsite as cover material or in construction.
- Allow for the acceptance of carpet and rubber foam wastes for landfilling at the premises. Carpet and rubber foam are not currently included in the list of acceptable Inert Waste Type 2.
- Reduce the required cover frequency for Special Waste Type 1 (asbestos waste) deposited in the landfill. The Licence Holder proposes to cover deposited Special Waste Type 1 once daily prior to compaction, rather than immediately after depositing.
- Amend the wording of Special Waste Type 1 processing requirements that requires vehicle unloading in a manner that avoids damaging plastic wrapping or containment of the waste.
- Amend greenwaste processing requirements to allow for the storage of green waste at the transfer station hardstand prior to transporting to the greenwaste hardstand (Hardstand Area 2). Prior to changes made through Amendment Notice 3, greenwaste was able to be stored at the transfer station hardstand.

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

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
61A	35,000 tonnes per annual period	75,000 tonnes per annual period	Processing of up to 40,000 tonnes per annual period of asbestos contaminated soils.

2.2.2 Revised application

Following the receipt of stakeholder comments for the application, the Licence Holder resolved on 2 July 2021 to remove the proposed screening of asbestos contaminated soils from their application. The scope of the application and this assessment is now only for the following:

- Update the landfill area map with the revised design figure contained in recently issued works approval W6362/2020/1.
- Allow for the acceptance of carpet and rubber foam wastes for landfilling at the premises.
- Reduce the required cover frequency for ACM deposited in the landfill to once daily prior to compaction.
- Amend the wording of Special Waste Type 1 processing requirements that requires vehicle unloading in a manner that avoids damaging plastic wrapping or containment of the waste.
- Amend greenwaste processing requirements to allow for the storage of green waste at the transfer station hardstand prior to transporting to the greenwaste hardstand (Hardstand Area 2).

The reduced scope of the application does not propose any throughput capacity changes to the existing Licence.

With regards to the proposed screening of asbestos contaminated soils, the department is currently working with the Department of Health (DOH) and the Department of Mines Industry Regulation and Safety (DMIRS) as to whether it is appropriate to manage such activities at prescribed premises'. The Licence Holder is advised to seek further advice before submitting any future applications for these activities.

2.3 **Premises operations**

2.3.1 Current operations

The Licence Holder commenced operations of the Premises in 2012 as a Category 63 (Class I inert landfill site), using a void progressively created by a sand quarrying operation. The sand mining operations are still active and as further voids are created they are backfilled with inert waste material.

Operations at the premises were subsequently amended to include Category 13 (Crushing of building material), Category 61A (Solid waste facility) and Category 62 (Solid waste depot).

The Licence Holder was recently issued works approval W6362/2020/1 authorising the construction of additional landfill cells 6 - 13 at the premises. These cells were previously authorised through works approval W5674/20141 which expired prior to their construction.

The Existing Licence allows for the acceptance of green waste, Inert Waste Type I, Inert Waste Type 2, Special Waste Type 1 (excluding fire waste), clean fill and contaminated soils meeting Class I acceptance criteria. Fire wastes were able to be temporarily accepted at the premises during a 12-month period from 9 June 2016, in response to the Waroona-Yarloop bushfire in early 2016.

The Licence Holder accepts up to 200,000 tonnes of waste onto the premises per annual period. Table 2 below outlines processes undertaken at the premises for each waste type and the related prescribed premises category.

Waste type	Processes	Related category
Inert Waste Type 1	Crushing and processing of building material and storage of product, at a rate of 50,000 tonnes per annual period	Category 13
Greenwaste	Handling, mulching and storage of up to 35,000 tonnes per annual period	Category 61A
Inert Waste Type 1, Inert Waste Type 2 and Clean Fill	Receipt, handling, mechanical sorting, hand sorting, screening and storage	Category 62
Inert Waste Type 1, Inert Waste Type 2, Clean Fill and Special Waste Type 1	Disposal of waste by landfilling of up to 150,000 tonnes per annual period	Category 63

Table 2: Waste types and processes occurring at the premises

Landfill waste operations (other than asbestos)

On arrival at the premises, waste loads are visually inspected by site operators prior to acceptance to determine the following:

- Waste types
- Waste quantity
- Waste origin
- Presence of unacceptable waste types
- Presence of asbestos

Waste loads determined to be acceptable for burial at the premises are then directed to the active landfill tipping area for unloading. Waste loads are spread at the tipping area in layers approximately 500 mm thick and compacted at least three times. Subsequent layers of waste are placed on top of the compacted layer. At the end of each day, the active tipping area is covered with soil or Inert Waste Type 1 to a depth of 100 mm.

Wastes are then to be visually inspected during tipping and spreading to identify any nonconforming waste types not detected during acceptance and are removed from the tipping face via hand-picking. Loads with a high amount of non-conforming waste are recovered and transported to the transfer station area to further remove contaminants via hand sorting and screening.

Non-conforming wastes that are not acceptable for recycling or burial at the Premises are placed in bins for removal offsite.

Landfill waste operations for asbestos

Asbestos waste is authorised to be accepted at the premises in three ways;

- Asbestos containing material (ACM) such as cement bonded asbestos and broken cement bonded asbestos are received double-wrapped in black plastic sheeting (< 200 µm thick) and labelled with the words 'CAUTION ASBESTOS';
- Bulk loads of asbestos contaminated soil are received covered, in a damp state; and
- Smaller loads of asbestos contaminated soil are received in bulka bags or similar.

ACM also has the potential to be incidentally accepted within unsorted construction and demolition waste loads, however the known acceptance of ACM in this manner is not permitted.

On arrival, delivery vehicles intending to dispose of asbestos waste are required to state what type of asbestos waste they are carrying and if they are carrying asbestos contaminated soil. The asbestos waste loads are then directed to the active Designated Asbestos Area. The delivery vehicle is required to keep its load covered until reaching the designated area and must not uncover or tip out the load until instructed.

Asbestos waste loads are permitted to be uncovered and commence tipping if site operators consider wind conditions are suitable and the onsite water cart is present for wetting down the load during tipping. Once the load is tipped, the truck is instructed to leave the area and may exit the landfill.

300 mm of uncontaminated soil or 1000 mm of Inert Waste Type 1 is then applied directly to the tipped load as cover material. A stockpile is stored next to the Designated Asbestos Area so a dozer can access and apply cover after each load is tipped.

Greenwaste operations

Greenwaste loads arriving at the premises are directed to the Transfer Station for acceptance and unloading. After acceptance, greenwastes are then mechanically screened and sorted to remove any contaminating material.

The Transfer Station is present above a hardstand comprised of 200 mm crushed recycled roadbase topped with 75 mm recycled drainage aggregate. The hardstand is surrounded by a 5 m high bund wall constructed from sand and inert materials covered with mulch and vegetation.

Following initial acceptance, screening and sorting, greenwastes are transported by the Licence Holder to Hardstand Area 2 for further processing. Greenwaste and untreated timbers are shredded and mulched at Hardstand Area 2 to create a product for sale or reuse on the premises. Unprocessed waste and processed material are stockpiled in 4 m high, 60 m long and 5 m wide windrows, with the stockpiles being removed or rotated monthly.

Hardstand Area 2 is comprised of 200 mm crushed recycled road-base topped with 75 mm recycled drainage aggregate. The hardstand is surrounded by a 5 m high bund wall constructed from sand and inert materials covered with mulch and vegetation.

2.3.2 Proposed operations

Carpet and rubber foam wastes

The Licence Holder is proposing to accept non-biodegradable carpets and rubber foam wastes for burial in their Class I landfill. Only non-biodegradable carpets and rubber foam that are clean of any chemical or putrescible residues are proposed for acceptance.

The Licence Holder will visually inspect incoming waste loads to determine if carpets are present and whether they are considered non-biodegradable. The Licence Holder considers nonbiodegradable carpets are generally reflective in the presence of light, with a glossy appearance and obvious synthetic backing, due to being made from synthetic fibres such as polypropylene, polyester or nylon. This distinguishes them from biodegradable carpets which are non-reflective and have a denser natural fibre backing, due to being manufactured from plant and animal material.

The Delegated Officer considers that carpet and rubber foam wastes are not permissible for disposal at a Class I landfill due to the following reasons:

- 1. Carpets and rubber foam generally occur within the waste stream as composite textile wastes or as shredder floc. According to the *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)*, these wastes more closely align with the examples provided for putrescible waste.
- 2. Additional to their synthetic fabric component, carpets are a composite product containing additional substances such as adhesives and protective surface coatings. These additional substances present a potential leachate risk and would not meet Class I acceptance criteria, making carpet wastes unsuitable for disposal to a Class I landfill.
- **3.** Carpets and rubber foam are a component of shredder floc, which is a residual waste created from the shredding of vehicles and electronic appliances. Shredder floc may experience contamination with polychlorinated biphenyls, oils, coolants and heavy metals. As a result, shredder floc is generally considered Class III waste or above and would require appropriate laboratory analysis to determine its acceptability.

As a result, the Delegated Officer has determined that acceptance of carpet and rubber foam wastes for burial at the Premises cannot be authorised through the Revised Licence and will not be considered further in the risk assessment.

Asbestos waste cover frequency

The Licence Holder is proposing to reduce their required cover frequency for asbestos wastes at the landfill. The current requirement is that 300 mm of cover must be applied immediately after deposition and prior to compaction. The Licence Holder is proposing that the 300 mm of cover be applied at the end of the day, prior to compaction.

The Licence Holder contends that an immediate cover requirement is too onerous as multiple trucks deposit asbestos contaminated soils and ACM waste loads per day and some asbestos wastes are already wrapped in plastic which mitigates the risk of emissions. The Licence Holder proposes to manage asbestos fibre emissions from the unwrapped asbestos contaminated soils by maintaining it in a damp state.

Greenwaste storage

The Licence Holder is proposing to amend their current greenwaste processing requirements, as the Existing Licence specifies that all green waste is to be stored and mulched on Hardstand Area 2. As outlined above, green waste is initially accepted and sorted at the Transfer Station prior to transport to Hardstand Area 2 for processing. This requires the greenwaste to be temporarily stored at the Transfer Station.

2.4 Consolidation of Licence

As part of this amendment package the department has consolidated the licence by incorporating changes made under the Amendment Notices as summarised in Table 3.

Instrument	Issued	Summary of approval
L8651/2012/1	09/06/2016	Licence amended to vary asbestos receival conditions for Waroona and Yarloop fire impacted waste
L8651/2012/1	26/04/2016	Notice of Amendment of Licence Expiry Dates
L8651/2012/1	16/02/2017	Amendment Notice 1 - Revision of the definition for non-biodegradable plastics
L8651/2012/1	15/08/2018	Amendment Notice 2 - Changes to the requirements for the acceptance of asbestos contaminated soils
L8651/2012/1	11/06/2019	Amendment Notice 3 - Addition of Category 13: Crushing of building material and Category 61A: Solid waste facility. Increases to the Premises' hardstand areas and increases to the height of stockpiles on the Premises

Table 3: Licences consolidated in this amendment

The obligations of the Licence Holder have not changed in consolidating the licence. The department has not undertaken any additional risk assessment of the Premises related to previous Amendment Notices.

In consolidating the licence, the CEO has:

- updated the format and appearance of the Licence;
- deleted the redundant AACR form set out in the previous licence and advise the licence holder to obtain the form from the department's website;
- revised condition wording to remove terms that are unenforceable, like as soon practical, with wording that is considered clear and precise on the outcome that must be achieved (DER 2015);
- revised licence condition's numbers, removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

The full consolidation of licence conditions as they relate to this Revised Licence are detailed in Section 5.1. Previously issued Amendment Notices will remain on the department's website for future reference and will act as a record of the department's decision making.

2.5 Amendment Notice 3 works conditions

Amendment Notice 3 for licence L8651/2012/1 was issued on 11 June 2019 for the addition of Category 13 and Category 61A, including associated infrastructure. The Amendment Notice included works conditions relating to the construction of additional hardstand areas at the Premises and required the submission of a compliance document confirming the item of infrastructure had been constructed to requirements.

Compliance document submission date	Related infrastructure and construction stage	Details	
25 October 2019	Hardstand Area 2 Stage 1	The compliance document states that Stage 1 of Hardstand Area 2 has been constructed to the requirements of condition 3.3.1.	
4 September 2020	Transfer station hardstand extension	The compliance document states that the transfer station hardstand extension has been constructed to the requirements of condition 3.3.1.	
26 July 2021	Hardstand Area 2 Stage 2	The compliance document states that Stage 2 of Hardstand Area 2 has been partially constructed to the requirements of condition 3.3.1. The hardstand and bund wall have only been constructed up to 40,000 m ² and hasn't been completed to the 54,000 m ² final area specified in the condition.	
		The document states that the following Stage 2 works are yet to be completed:	
	Hardstand Area 3	 Hardstand Area 2: the remaining 14,000 m² and associated bund walls remain to be completed. 	
		 Hardstand Area 3: no construction has be commenced. Commencement is dependent on wh enough recycled material is available to construct thardstand. 	
	Crusher	 Crushing equipment is not on site. 	
		Completion timelines for Stage 2 were not able to be achieved. It is estimated that Hardstand Area 2 will not be completed for at least another 12 months and Hardstand Area 3 would take at least another 24 months.	

Table 4: Compliance documents related to Amendment Notice 3 works

The Delegated Officer notes that:

- 1. Works relating to hardstand construction at the premises have only been partially completed and the completion date of 11 June 2021 listed in Amendment Notice 3 has passed.
- 2. Amendments to the completion date for Stage 2 of Hardstand Area 2, Hardstand Area 3 and the Crusher will be required. The completion date will be modified through the current amendment.

2.6 **Compliance history**

On 25 June 2019 a waste levy site inspection carried out by DWER inspectors identified that non-conforming waste types (timber, cardboard, foam, carpet, paper and mulch) was being disposed of within the landfill. These waste types have the potential to produce leachate and landfill gas emissions.

An environmental field report (EFR) was issued directing the Licence Holder to comply with licence condition 1.2.2 (and Table 1.2.2 – provision (e)) of their Existing Licence (L8651/2012/1), which stipulates that only inert waste is to be disposed of via landfilling. The Applicant notified DWER that all non-conforming waste has been removed from the landfill as requested. No non-conforming waste was identified at follow up inspections in September and November 2019.

On 26 February 2020 another waste levy site inspection was carried out by DWER inspectors. This inspection once again identified paper, timber, cardboard, cloth and carpet within the landfill cells. It was also identified that more than 100 tyres were being stored at one time within the transfers station area, in breach of licence condition 1.2.3. The following additional issues were also identified:

- More than 100 used tyres were being stored at one time within the transfer station area, in breach of condition 1.2.3;
- Signage had not been erected on recycled product stockpiles in accordance with condition 1.2.3;
- Cement bonded asbestos had not been unloaded from delivery vehicles in a manner to prevent damage to plastic wrapping in accordance with condition 1.2.3;
- Special Waste Type 1 (asbestos) was not being covered in accordance with condition 1.2.5;

On 2 December 2020 a site inspection was undertaken that identified non-compliance with licence conditions 1.2.2, 1.2.3 and 1.2.5. Excessive quantities of non-conforming waste consisting of wood, chipboard, cloth and foam was observed on the active tip face on the east side of Cell 6 and a significant quantity of uncovered asbestos wrapped in black plastic within the asbestos cell was also identified. An EFR was issued as a result of the inspection.

On 21 May 2021 a site inspection was undertaken where excessive quantities of nonconforming waste was observed within the active tip face (partially covered with uncompacted sand), including carpet, cloth, chipboard, and wood. The waste was considered to be foam shredder floc. An EFR was issued for the immediate removal of the non-conforming waste back to the transfer station to be screened or removed from the premises to an appropriate facility.

Site inspections were also undertaken on 26 May and 4 August 2021 where excessive quantities of non-conforming waste was again observed within the active tip face. EFRs were issued on both occasions requiring the immediate removal of the non-conforming waste back to the transfer station to be screened or removed from the premises to an appropriate facility.

A further summary of the compliance history for the premises is provided in Table 5 below.

Date	Reference	Issue
04/08/2021	EFR 05705	Breach of licence condition.
26/05/2021	EFR 05704	Breach of licence condition.
21/05/2021	ICMS 58675 EFR 05703	Breach of licence conditions.
02/12/2020	ICMS 58675 EFR 00418	Continued breach of licence condition observed on follow up inspection.
04/11/2020	DWERME3505/20	Breach of licence conditions.
03/09/2020	ICMS 58675	Breach of licence condition.
15/06/2020	ICMS 57810	Breach of licence condition.
25/03/2020	ICMS 56563	Continued breach of licence condition observed on follow up inspection.

 Table 5: Summary of compliance history for the premises

Date	Reference	Issue
26/02/2020	ICMS 56563	Breach of licence conditions observed at inspection.
20/04/2020	DWERME1208/20	Breach of licence conditions.
22/11/2019	ICMS 55555	Breach of clearing permit – illegal clearing of native vegetation.
26/09/2019	ICMS 55343	Breach of licence conditions.
08/09/2019	ICMS 54366 EFR 00561	Breach of licence condition.
25/06/2019	ICMS 54366 EFR 00561	Breach of licence condition observed at inspection.
13/09/2018	ICMS 51125 EFR 00404	Breach of licence condition observed at inspection.

The Delegated Officer notes that:

- **1.** There is a continued history of the Licence Holder accepting and depositing waste within the landfill that is not approved through the conditions of L8651/2012/1.
- 2. The non-conforming waste has been identified as usually being shredder floc, comprised of timber, cardboard, foam and carpet. Shredder floc is generally considered Class III waste or above, due to its potential to produce leachate and observed concentrations of contaminants. The waste is not suitable for disposal at a Class I landfill.
- **3.** Non-compliances with licence conditions relating to managing the landfilling of asbestos waste at the Premises have been documented.

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 6 below. Table 6 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Emission	Sources	Potential pathways	Proposed controls
Asbestos	Reduced cover frequency for landfilled ACM or	Air/windborne	 Minimum 25 m buffer between premises boundary and edge of landfill cells
	asbestos contaminated soils		• Covering of asbestos wastes at the end of the day and prior to compaction with 300 mm of soil cover or 1000 mm of inert waste type 1 cover material
			 Asbestos waste is received and deposited only at landfill areas designated for this purpose
			 ACM is received double wrapped and taped in black plastic sheeting (minimum 200 µm thickness)
			 Asbestos contaminated soil is received damp (not saturated)
			 Unloading of asbestos wastes does not occur during wind conditions that are likely to cause dust emissions
			 Water cart and fixed sprinklers are used to dampen asbestos waste material during tipping
			 Asbestos waste to be maintained in a damp state
Leachate	Temporary storage and sorting of greenwaste at the transfer station	Overland flow	 Stored on compacted roadbase hardstand
Odour		Air/windborne	None.
Noise			• 5m bunding provided around the area

Table 6: Licence Holder controls

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 7 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 7: Sensitive human and environmental receptors and distance from prescribed activity

Receptors	Distance from prescribed activity
Human receptors	
Closest sensitive receptor – Rural premises	Approximately 1.6 km north of the greenwaste hardstand, 1.6 km northwest of the transfer station, 1.1 km north of the current landfill area and 1 km north of the premises boundary.
Closest industrial receptor – Landfill premises (L6756/1996/11)	Approximately 950 m southeast of the current landfill area, 935 m southeast of the greenwaste hardstand, 500 m southeast of the transfer station and 410 m south of the premises boundary.
Environmental receptors	
Groundwater – Perth - Superficial Swan (non-potable purposes)	Approximately 1.57 to 14.57 mBGL (11.6 to 14.62 mAHD) across the premises. Monitoring conducted by the Licence Holder indicates that groundwater is located at approximately 12 mAHD in the landfill area. The base of the landfill cells are located at approximately 2 m above groundwater. Groundwater flow direction at the site is inferred to be west to southwesterly, based on monitoring information submitted by the Applicant.
Threatened Ecological Communities – Banksia Dominated Woodlands of the Swan Coastal Plan IBRA Region	Occurrences of the TEC are located within the premises.
Geomorphic wetlands of the Swan Coastal Plain – Conservation category basin dampland	Approximately 970 northeast of the greenwaste hardstand, 375 m northeast of the transfer station, 375 m east of the current landfill area and 185 m east of the premises boundary.
Geomorphic wetlands of the Swan Coastal Plain – Resource enhancement category basin sumpland	Occurs within the premises, located approximately 1.15 km northwest of the transfer station, 815 m west of the current landfill area and 375 m northwest of the greenwaste hardstand.
Wetlands – Basin sumpland	Occurs within the premises, located in a vegetated area between the transfer station, greenwaste hardstand and current landfill area.
Surface water – Drainage canal line	Approximately 1.05 km southwest of the current landfill area, 925 m southwest of the transfer station, 450 m southwest of the greenwaste hardstand and 400 m southwest of the premises boundary.



Figure 1: Distance to sensitive receptors

3.1.3 Pathways

Table 8 below provides a summary of the characteristics of potential pathways that are considered relevant to emissions and discharges from the prescribed premises (*Guidance Statement: Risk Assessment* (DER 2017)).

Aspect	Details	
Geology	Previous investigations at the Premises suggest that the soil profile is predominantly sandy, with upper horizons comprising of clayey sand, which turns to silty sand with depth.	
Meteorology	The Bureau of Meteorology weather station No. 009538 Dwellingup provided the following information, based on records from 1991 to 2020 for rainfall and 1957 to 2020 for wind conditions:	
	• The majority of rainfall occurs between May and September with an average annual rainfall of 1,118.5 mm.	
	• Prevailing wind directions are predominately easterly and southeasterly in the morning and ranging between north westerly to southwesterly in the afternoon.	

Table 8: Pathways and site characteristics at the Premises

Aspect	Details
Topography	The site consists of a sand ridge to the east and north, rising to approximately 31 mAHD. The central and south-western areas are lower lying at approximately 11 mAHD with a seasonally inundated dampland that flows westwards via a shallow drain.

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 9.

The Revised Licence L8651/2012/1 that accompanies this Amendment Report emissions associated with the operation of the Premises i.e. category 13, 61A, 62 and 63 activities.

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

Risk Event Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence
Operation							
Reduced cover frequency for asbestos contaminated soils		Air/windborne pathway	Closest sensitive receptor (1.1 km north)		C = Severe L = Possible Extreme Risk	N	The current requirement to immediately cover asbestos waste material will be retained for asbestos contaminated soil that is not wrapped in heavy duty plastic or otherwise contained.
Reduced cover frequency for asbestos waste wrapped in heavy duty plastic or otherwise contained	Asbestos fibres	causing impacts to human health	Closest industrial premises (950 m southeast)	Refer to Section 5.1	C = Severe L = Unlikely High Risk	Y	12 – Table 3: Timescale
	Contaminated stormwater	Overland flow causing impacts to terrestrial and aquatic ecosystems	TEC located within the premises Wetland located within the premises Drainage canal line (1.05 km southwest)				
Temporary storage of greenwaste at the transfer station	Odour	Air/windborne pathway causing impacts to	Closest sensitive receptor (1.6 km northwest) Closest industrial premises (500m southeast)	Refer to Section 5.1	C = Minor L = Unlikely Medium Risk	Y	3 - Table 2: Greenwaste Process limits and/or specifications (a) and (b)
	Noise	human health and amenity	Closest sensitive receptor (1.6 km northwest) Closest industrial premises (500m southeast)				

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.

Licence: L8651/2012/1

Justification

Although the Licence Holder is not permitted to accept fibrous asbestos or asbestos fines at the premises, they may still be present within asbestos contaminated soils. Asbestos contamination within soil occurs in a heterogeneous manner and this may result in the presence of fibrous asbestos or asbestos fines within areas of the soil that have escaped detection. Damaged or broken cement bonded asbestos also has the potential to release asbestos fibres to air.

A key control for the appropriate management of asbestos waste is to provide multiple barriers that prevent the emission of asbestos fibres to air. A conservative approach to control this has been taken due to the significance of asbestos exposure to human health. ACM and other asbestos materials not accepted in bulk loads at the facility are received wrapped in plastic and covered, which provides these barriers. The only barrier provided for asbestos contaminated soil currently occurs through the requirement to immediately cover asbestos waste after deposition.

In consideration of the Licence Holder's compliance history and the conservative approach taken to prevent the potential emission of asbestos fibres, the Delegated Officer does not consider the Licence Holder's controls for unwrapped or uncontained asbestos contaminated soil to be sufficient where an immediate cover layer is not applied.

The proposed reduction in cover frequency for appropriately wrapped and contained asbestos waste is however considered suitable.

Information submitted by the Licence Holder during the assessment of Amendment Notice 3 (Timber and Mulch Shredding Plan 2018) states that greenwaste for processing is sourced from screened and sorted material derived from the onsite Transfer Station. Prior to the issuing of Amendment Notice 3, greenwaste was permitted to be stored at the Transfer Station.

The specifications for Hardstand Area 2 and the hardstand present at the Transfer Station are consistent. Both areas are also located at approximately the same distance from the nearest noise and odour sensitive receptor.

The Delegated Officer has reviewed the previous versions of licence L8651/2012/1 in place prior to the issue of Amendment Notice 3 and considers that:

- 1. The process limit wording requiring the storage of all green waste at Hardstand Area 2, appears to be an oversight when drafting Amendment Notice 3.
- 2. On review, the process limit is intended to require that all shredding and mulching of greenwaste and timber occurs at Hardstand Area 2. Temporary storage at the transfer station is necessary, as this is the area that waste is accepted onto the Premises.

4. Consultation

A summary of the consultation undertaken for the application is contained in Appendix 1. Table 12 lists the direct interest stakeholder consultation and the comments received from members of the public during the public submission period. Table 13 contains the Licence Holder's comments on the risk assessment and draft conditions.

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.

The Revised Licence will authorise the temporary storage of green waste at the transfer station hardstand, prior to transporting to Hardstand Area 2. The updated landfill area map will also be included in the Revised Licence.

The Delegated Officer considers that as the Premises is a Class I inert landfill, the acceptance of carpet and rubber foam waste for burial is not permissible. Carpets and rubber foam are not considered inert waste, due to the presence of other potential contaminants within the waste stream. Acceptance of these materials for burial has not been authorised in the Revised Licence.

The Delegated Officer has determined that covering of asbestos waste immediately after deposition within the landfill is a required control for the management of unwrapped asbestos contaminated soils at the Premises. This is due to the conservative approach taken to prevent the potential emission of asbestos fibres. The requirement to cover unwrapped asbestos contaminated soils immediately after deposition has been retained in the Revised Licence. The reduction in cover frequency for appropriately wrapped and contained asbestos waste is however consider suitable.

The wording of the requirement to unload wrapped asbestos waste in a manner that avoids damaging plastic wrapping will be largely retained in the Revised Licence. The Delegated Officer considers the current language of the requirement to be generally worded in a clear and certain manner, clear and precise on the outcome that must be achieved and worded so that the requirements for compliance are clear. Only minor amendments to the requirement have been included.

The Delegated Officer has resolved to make amendments to the completion date for Stage 2 works originally authorised through Amendment Notice 3. A change to the completion date is not considered to alter emissions and discharges previously assessed for the Premises. The associated operational activities are not authorised to commence until the relevant infrastructure has been constructed and reported to DWER.

5.1 Summary of amendments

5.1.1 Application amendments

Table 10 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.

Condition no.	Proposed amendments			
1(a)	The condition was changed to refer to a corresponding category related to waste acceptance.			
1: Table 1 Greenwaste	Greenwaste was renamed to putrescible waste and the following acceptance specification was added: Greenwaste and untreated timber only.			
1: Table 1 Special Waste Type 1	The acceptance specification requiring the waste type to be wrapped was reworded to: Cement bonded asbestos must be wrapped securely in plastic or otherwise contained in a manner that provides a barrier to prevent asbestos fibres entering the environment			
1: Table 1 Waste acceptance rates	A column listing an applicable approved category was added to the table. The rate at which waste is received was changed from a combined total to an individual total, corresponding to the particular category that the waste types are accepted under.			
3, 4, 5, 6, 7, 8, 10 and 11 Schedule 3 - 5	Construction and demolition waste inspection and management requirements have been removed from the waste processing table (Table 2) and replaced with the standard conditions currently used in contemporary licences, similar to those used in other licences associated with the Licence Holder. The requirements are generally the same as those removed from the waste processing table however, they are now contained in standalone conditions or within specific schedules of the licence.			
9: Table 2 Greenwaste	 The greenwaste storage specification was changed to: (a) Storage of greenwaste must only occur; i. within windrows at the Transfer Station following acceptance and prior to mulching; or ii. within windrows on Hardstand Area 2; 			
9: Table 2 Special Waste Type 1	 (b) Mulching of greenwaste must only occur on Hardstand Area 2; The Special Waste Type 1 specification relating to unloading and wrapping was changed to: Waste must be unloaded from the delivery vehicle directly into its final resting position in such a manner that avoids the damage of plastic wrapping/containment and the generation of dust or release of asbestos fibres 			
12: Table 3	The Delegated Officer has corrected an error in the cover requirements table by adding an additional footnote that clarifies the material properties of Inert Waste Type 1 used for cover.			
13 and Table 4	An infrastructure and equipment table has been included in accordance with the department's current licensing format. The table includes the Landfill Cells, Transfer Station, Hardstand Area 2, Hardstand Area 3 and Monitoring Bores SE1 – 4. Operational requirements listed in the table have been derived from existing conditions or requirements within the licence.			

Table 10: Summary of licence amendments

Condition no.	Proposed amendments
	Process limits (h) and (i) from Table 1.2.2 of the Existing Licence have been included as operational requirements for the Transfer Station and screening equipment. The properties of the bund and hardstand from Table 3.3.1 have also been included.
	Process limits (h) and (i) from Table 1.2.2 of the Existing Licence have been included as operational requirements for Hardstand Area 2 and mulching equipment. The properties of the bund and hardstand from Table 3.3.1 have also been included.
	Process limits (h), (i) and (w) from Table 1.2.2 of the Existing Licence have been included as operational requirements for Hardstand Area 3 and crushing equipment. The properties of the bund and hardstand from Table 3.3.1 have also been included.
	Process limits (z), (aa) and (cc) from Table 1.2.2 of the Existing Licence have been included as operational requirements for the Landfill Cells.
	Monitoring Bores SE1 – 4 have an operational requirement that they must be maintained free from blockages and in working order.
9: Table 2 Greenwaste	Greenwaste was renamed to putrescible waste and the following process limits and specifications were added:
Croonwacto	No more than 35,000 tonnes of waste may be processed per annual period.
	Waste to be processed must be comprised of greenwaste and untreated timber only.
9: Table 2	A process limit was added, corresponding to the approved capacity for category 13:
Category 13 waste processing	No more than 50,000 tonnes of waste may be processed per annual period.
9: Table 2 Category 63 waste	The process specification for waste accepted under category 63 that required levelling and compaction as soon as practicable after deposit was changed to:
processing	Excluding used tyres, waste must be levelled and compacted by the end of the working day in which it was deposited within the Landfill Cells.
	Used tyres must be levelled and compacted within a week of being deposited in the Landfill Cells.
12: Table 3	The timescales required for covering the waste type were changed to:
Special Waste Type 1	Asbestos contaminated soil that is not wrapped in heavy duty plastic or otherwise contained must be covered immediately after deposit and prior to compaction.
	Asbestos waste that is wrapped securely in plastic or otherwise contained in a manner that provides a barrier to prevent asbestos fibres entering the environment must be covered prior to compaction or by the end of the working day in which the asbestos waste was deposited.
12: Table 3 Inert Waste Type	Used tyres were listed as a specific waste type and Inert Waste Type 2 was clarified to exclude used tyres, for the purpose of specifying different cover requirements in the table.
2	The corresponding cover requirements for used tyres were changed to:
	100 mm of soil or Inert Waste Type 1 ² by the end of the working week, and in accordance with Part 6 of the Environmental Protection Regulations 1987 (refer to 'Note 3').
28: Table 8	Stage 1 works have been removed from the design and construction requirements / installation requirements table as the works have already been completed by the Licence Holder.
	The timeframe requirement for the remaining works has been changed to 16 December 2023 in the corresponding timeframe column in Table 8.
28: Table 8 Hardstand Area 2	To clarify that the Stage 2 works for Hardstand Area 2 have been partially completed the infrastructure and equipment name for Hardstand Area 2 was changed to:
	Additional 14,000 m ² of Hardstand Area 2

Condition no.	Proposed amendments
Definitions	 The following definitions were added: construction and demolition waste means materials in the waste stream which arise from construction, refurbishment or demolition activities. contaminated solid waste means solid waste that contains a substance at concentrations that present, or has the potential to present, a risk of harm to human health, the environment or any environmental value. Landfill Cells means the landfill cell infrastructure as specified in Condition 13 (Table 4) of this licence.
Schedule 1: Figure 2	The landfill area map was updated with the revised design from works approval W6362/2020/1.

Consolidation and conversion 5.1.2

Table 11 provides a summary of the licence conditions consolidated and converted in this amendment and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Prescribed Premises Category table	N/A	Revised to current licensing format and amalgamated to include categories added through Amendment Notice 3.
1.1.1	Interpretation and definitions	N/A Interpretation section, Definitions section and Table 9	Redundant condition. Revised to current licensing format. Department, CEO and document details updated to current wording. Definition also added for 'Landfill Cells'.
1.1.2	Australian or other standard	N/A Interpretation section	Redundant condition. Revised to current licensing format.
1.2.1 and Table 1.2.1	Waste acceptance	1 and Table 1	Revised to current licensing format and amalgamation of amendment notices.
	Fire waste	N/A	Fire waste has been removed from the waste acceptance table as the approved 12 month timeframe for acceptance of this waste type, being 9 June 2017, has been passed.
1.2.2	Segregation and removal of non-conforming waste	2	Revised to current licensing format and wording. Revised condition wording to remove terms that are unenforceable.
1.2.3 and Table 1.2.2	Waste processing	9 and Table 2	Revised to current licensing format and amalgamation of amendment notices. Revised condition wording to remove terms that are unenforceable.

Table 11: Consolidation of licence conditions in this amendment

Existing condition	Condition summary	Revised licence condition	Conversion notes
			operational requirements in the infrastructure and equipment table.
	Fire waste	N/A	This waste type and associated requirements were removed from the processing table as they are no longer relevant.
1.2.4 (a) and (b)	Landfill management requirements	9 and Table 2	The standalone condition was removed with sub-conditions (a) and (b) included as process specifications for disposal of waste by landfilling.
1.2.4 (c)		13 and Table 4	The standalone condition was removed with sub-condition (c) included as an operational requirement for the Landfill Cells.
1.2.5 and Table 1.2.3	Landfill cover requirements	12 and Table 3	Revised to current licensing format and wording.
1.2.6	Site security	15	Revised to current licensing format and wording. Revised condition wording to remove terms that are unenforceable.
1.2.7	Windblown waste	16	Revised to current licensing format and wording. Revised condition wording to remove terms that are unenforceable.
1.2.8 and Table 1.2.4	Recycled output asbestos limits	14	Revised to current licensing format and wording.
1.2.9 and Table 1.2.5	Sampling of recycled outputs	19 and Schedule 5	Revised to current licensing format and wording where the method requirements in the DWER Asbestos Guidelines are directly included in the licence as a Schedule rather than referring to the document.
2.1.1(a) and (b)	Sampling methodology	19 and Table 6	Revised to current licensing format and wording where the sampling methodology is included in the associated monitoring table.
2.1.1(c)	NATA accreditation	20	Revised to current licensing format and wording.
2.1.2	Duration between samples	21	Revised to current licensing format and wording.
2.2.1 and Table 2.2.1	Waste input/output monitoring and asbestos waste records	17	Revised to current licensing format and wording. Fire waste was removed from the monitoring table as it is no longer relevant.
2.3.1 and Table 2.3.1	Groundwater monitoring	19 and Table 6	Revised to current licensing format and wording where the sampling methodology is included in the monitoring table.
3.1.1	Accurate and auditable books and records	26 and 27	Revised to current licensing format and wording.
3.1.2	Annual auditing of compliance	24	Revised to current licensing format and wording where submission of the AACR is included in the condition.

Existing condition	Condition summary	Revised licence condition	Conversion notes
3.1.3	Complaints management	23	Revised to current licensing format and wording.
3.1.4	Waste acceptance records and registers for Special Waste Type 1 and fire waste	22	Revised to current licensing format and wording. Fire waste was removed from condition as it is no longer relevant.
3.2.1 and Table 3.2.1	Submission of an Annual Environmental Report (AER)	25 and Table 7	Revised to current licensing format and reporting expectations. Reporting on recycled output testing has been included.
3.2.2	AER requirements	Table 7	Revised to current licensing format and reporting expectations.
3.3.1 and Table 3.3.1	Construction requirements for infrastructure and equipment	28 and Table 8	Revised to current licensing format and wording.
3.3.2	Compliance reporting for infrastructure and equipment construction	29	Revised to current licensing format and wording.
3.3.3	Submission of compliance reporting before using new infrastructure and equipment	30	Revised to current licensing format and wording.
Schedule 1: Map 1	Premises map	Schedule 1: Figure 1	New naming convention and map updated with recent aerial imagery.
Schedule 1: Map 3	Monitoring bore map	Schedule 1: Figure 5	New naming convention.
Schedule 1: Map 4	Location of transfer station	N/A	The figure was removed as it was made redundant by Map 6 issued through Amendment Notice 3.
Schedule 1: Map 5	Location of designated asbestos area for fire waste	N/A	The figure was removed as fire waste is no longer a relevant waste type.
Schedule 1: Map 6	Additional hardstand areas	Schedule 1: Figures 3 and 4	New naming convention and replacing Map 4: Location of transfer station.
Schedule 2 Reporting & notifications	Annual Audit Compliance Report Form GR1 Monitoring	N/A	Redundant attachment. Deleted from Licence. AACR form accessed at <u>www.der.wa.gov.au/our-work/licences-and-</u> <u>works-approvals/publications</u>
Schedule 3	Asbestos and ACM Management	Schedule 3 - 5	Revised to current licensing format and the updated format of the DWER Asbestos Guideline.

References

- 1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- 2. DER 2015b, *L8651/2012/1 Licence Amendment Decision Document*, Perth, Western Australia (DWER reference: A947712).
- 3. Department of Water and Environmental Regulation (DWER) 2019, Landfill Waste Classification and Waste Definitions 1996 (as amended 2019), Perth, Western Australia.
- 4. DWER 2020, Guideline: Environmental Siting, Perth, Western Australia.
- 5. DWER 2020, Guideline: Risk Assessments, Perth, Western Australia.
- 6. DWER 2021, *Guideline: Managing Asbestos at Construction and Demolition Waste Recycling Facilities*, Perth, Western Australia.
- 7. Environmental Protection Authority (EPA) 2018, Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual, Environmental Protection Authority, Perth, WA.
- 8. Waroona Resources 2019, *Compliance Document: Stage 1 of Hardstand Area 2*, Unpublished report.
- 9. Waroona Resources 2020, *Compliance Document: Construction of Hardstand Extension to Transfer Station*, Unpublished report.
- 10. Waroona Resources 2021, *Compliance Document: Construction of Hardstand Timber Recycling Area*, Unpublished report.

Appendix 1: Consultation summary

Table 12: Summary of direct interest stakeholder comments on the application

Consultation method	Comments received	Department response
Local Government Authority advised of proposal (16 March 2021)	The Shire of Waroona did not provide comments.	N/A
Department of Health (DOH) advised of proposal (16 March 2021)	 DOH strongly recommends that the amendment is not approved. Insufficient and contradictory information has been provided on: Material acceptance criteria and process for selecting acceptable asbestos waste for screening purposes Sampling and analysis process and procedures, including meeting material acceptance criteria (front end sampling) The screening process for soils vs crushing and screening process for construction and demolition waste, implying that crushing of asbestos containing materials may occur Dust management measures through the screening process Air quality, including personal monitoring requirements Health surveillance requirements for works Training and competency of person undertaking various critical activities i.e material acceptance assessment. DOH is aware that this is the second application to recycle asbestos waste, both of which rely on the <i>Guidelines for management of asbestos at construction and demolition waste recycling facilities</i>. This is not the purpose of these guidelines, which are under-pinned by the assumption that materials being processed are non-contaminated materials, and that sampling is undertaken for audit and validation purposes only. The consultant appears to have copied the material acceptance procedures associated with acceptance of construction and demolition waste resulting in incorrect sampling methodology and process being provided in the application. It is noted that additional information was requested regarding the source of ACM for screening. The Environmental Management Plan provides no additional detail (it is mainly a duplicate of the amendment supporting document) and includes incorrect information on sampling and analysis of asbestos (contrary to existing guidelines). 	The potential issues with the asbestos screening process were outlined to the Licence Holder after which the asbestos screening portion of the application was withdrawn. The revised scope of the application is described in Section 2.2.2. The department is currently working with the Department of Health (DOH) and the Department of Mines Industry Regulation and Safety (DMIRS) as to whether it is appropriate to manage such activities at prescribed premises'. The Licence Holder is advised to seek further advice before submitting any future applications for these
	The amendment and licence conditions should include records of the following:Details on the measured asbestos content of loads that are screened, and the total quantity screened	activities.

Consultation method	Comments received	Department response
	Sample records, including air sampling	
	Register of personnel	
	 Training and licensing records of personnel (specific to asbestos related work) 	
	Material tracking (stockpile placement and size)	
	In addition, the Asbestos Management section does not adequately address the asbestos waste screening processes and does not provide sufficient detail regarding the standard and condition of material that will be processed on site.	
	As no information is provided on material acceptance criteria, the control measures being specified cannot be adequately assessed and may need to be more stringent, including licensing and approval from Department of Mines, Industry Regulation and Safety (DMIRS) for undertaking asbestos-related removal work under the current <i>Occupational Safety and Health Regulations 1996</i> . Advice should also be sought on whether such asbestos related work will still be permitted under the proposed new regulations.	
	Monitoring and sampling requirements for any ACM screening cannot be reduced over time as for non-asbestos containing construction and demolition waste. A more rigorous air monitoring program than what has been proposed should continue as long as the work is undertaken. This reflects a poor understanding of the risk assessment and control approach taken in the application for ACM screening, as distinct from construction and demolition waste recycling.	
	The proponent indicates that non-compliant waste will be set aside for on-site disposal. DOH is concerned that large quantities of non-compliant hazardous waste may accumulate on site, whilst arrangements are made for final disposal. This needs to be considered in any future licence approval.	
	The site lies within an area of possible Acid Sulfate Soils (ASS). If the applicant proposes to abstract groundwater for dust suppression purposes, groundwater must be suitable for use and abstraction should not result in disturbance of underlying ASS material.	
	The re-use of minimally impacted soils as landfill cover material in an asbestos waste cell is supported in principle. However, proponents wishing to undertake bonded ACM screening need to demonstrate that they understand the attendant risks and controls required to undertake such work.	

Condition	Summary of Licence Holder's comment	Department's response					
Draft Revised Licence	Draft Revised Licence						
Draft Revised Licence 1 – Table 1 Waste acceptance	Rate at which waste is received The rate at which waste is received stated - is only applicable to Category 62 (200,000 tonnes) – yet this is confusing that under Waste Type you still have listed Special Waste Type 1 which is only able to be received for burial under Cat 63 (150,000 tonnes). The table is confusing the categories. If it is a combined total, then that should be 385,000 to cover Cat 63, 62 and 61A. (The crushing Cat 13 is done using recyclables outputted from Cat 62, so I have not added that.) For Waste Acceptance to Site: We can accept waste directly to landfill which is at 150,000 tonne capacity. Then we can accept waste directly to our transfer station which is at 200,000 tonne capacity So all up 350,000 tonne capacity. They are separate and can't be mixed, otherwise it confuses the two as well as Asbestos that can only be accepted to landfill. For Processing Recyclables: Then from the transfer station we can move and crush 50,000 tonne of concrete/brick rubble under 13. As well as move 35,000 of wood to be processed under 61A.	The Delegated Officer has reviewed a Decision Document for the Premises from 2015 (DER 2015b), including associated correspondence (pers. comm. 27 November [DWER reference: A1013522]), which relates to increasing throughput for category 63 and the addition of category 62. The Decision Document (DER 2015b) states that the amendment was to increase the Premises production or design capacity for the inert landfill to 150,000 tonnes per annual period (from 50,000 tonnes per annual period) and to add category 62 with a maximum capacity of 400,000 tonnes per annual period. The risk assessment for the decision was conducted based on a nominated waste throughput of 200,000 tonnes per year. Correspondence (pers. comm. 27 November [DWER reference: A1013522]) at the time suggests that the limiting factor for increasing waste acceptance up to 400,000 tonnes per annual period was the requirement to reassess potential dust and noise emissions relating to the mulching of greenwaste and the potential addition of Category 61A. A revised assessment was not elected to be undertaken due to uncertainties in the volume of greenwaste to be accepted and mulched. Subsequently a licence amendment application was processed in 2019 that included the addition of Category 61A with a capacity of 35 000 tonnes per annual period and the addition of other activities with potential noise and dust emissions. The Assessment resulted in the risk rating for both noise and dust emissions increasing from Low to Medium and the specification of additional Licence Holder and regulatory controls. However, no resulting changes to waste acceptance volumes occurred as part of the amendment. The Delegated Officer considers that previous issues raised in					
		relation to noise and dust emissions from greenwaste processing have already been addressed through Amendment Notice 3 and this application. Previous assessments have also been performed based on categories 13, 61A, 62 and 63 having approved capacities of 50 000, 35 000, 200 000 and 150 000 per annual period respectively. Accordingly, the Delegated					

Table 13: Summary of licence holder's comments on risk assessment and draft conditions

Condition	Summary of Licence Holder's comment	Department's response
		Officer considers that waste acceptance limits for the various activities should have previously been amended to correspond with the approved capacities for categories 61A, 62 and 63. The waste acceptance table will be changed accordingly as part of this amendment.
	Inert Waste Type 2 I understand that foam is being denied due to the risk of Shredder Floc. However carpet made from Nylon and Polypropylene from residential skip bins could still be considered, as it is not derived from the shredding of cars or white goods at all. There is no risk of shredder floc being accepted at this premise due to the ban on companies such as Bulk Metals and any other facility that deals with the processing of used cars/metal recyclers	The Delegated Officer has not based their decision regarding the acceptance of carpets and foams solely on the potential for the waste to be shredder floc. Although the majority of the carpets are made up of nylon and polypropylene they are a composite product that contains protective coatings and treatments. These coatings contain persistent organic pollutants that can leach to groundwater when disposed of to an unlined landfill. This is referred to in Section 2.3.2 of this Amendment Report.
	<u>Contaminated Solid Waste</u> are you able to provide a definition of this waste type for our guidance as well as the acceptance specification – The Landfill Definitions document I have doesn't seem to show this waste type?	The following definition for contaminated solid waste has been added to the Revised Licence: means solid waste that contains a substance at concentrations that present, or has the potential to present, a risk of harm to human health, the environment or any environmental value
	<u>Green waste</u> This is to also cover: Wood, Timber, Jarrah, Urban Wood Waste that is not treated for recycling. Does this need to be further clarified here?	Previous assessments relating to the premises have established that untreated timber wastes are also accepted for processing along with greenwaste. The Delegated Officer notes that the reference to greenwaste only within the waste acceptance criteria does not provide sufficient clarity for premises activities.
		The Delegated Officer has further clarified the waste acceptance table by changing the waste type from <i>Greenwaste</i> to <i>Putrescible Waste</i> . The following acceptance specification for Putrescible Waste was also added: <i>Greenwaste and untreated timber only</i> .
3 – Table 2 Waste processing	<u>Greenwaste - Category 61A</u> again does further waste types (Timber, Jarrah, Un-treated Woods, Urban Woods) need to be listed here and in our definitions?	To reflect the change referred to above the Delegated Officer has changed the waste type from <i>Greenwaste</i> to <i>Putrescible</i> <i>Waste</i> . A new process limit was also added that restricts waste

Condition	Summary of Licence Holder's comment	Department's response
		processing to greenwaste and untreated timber only.
	Category 62 (a)it is noted that all screening and sorting and storage of waste must occur at the Transfer Station Hardstand and Area 3. You would need to list Area 2 as well to cover the greenwaste/timber processing.Essentially the clean timber/wood material comes in and then undergoes a pass through a shredder, screen, separator and then we have up to 3 products for resale at the end. We don't accept mixed or dirty wood loads here. That would all be at the main transfer station.	The Delegated Officer has addressed this by adding <i>mechanical screening</i> into the process description corresponding to Category 61A. The Delegated Officer does not consider that further changes are required. The existing limit referred to in the comment corresponds to Category 62 only and would not apply to processing of greenwaste and untreated timber via Category 61A.
	<u>Category 63 (b)</u> further information as to DWER's updated interpretation of "after deposition within the landfill cells" is required. Compliance can take their own view on this condition that may conflict with actual site processes that we have been conducting for all these years and we need to avoid any chance for non- compliance as well as have a clear understanding of our requirements under this licence The time taken to level and compact waste depends on the waste type:	The Delegated Officer agrees that what was initially proposed isn't any clearer than the previous wording. In consideration of the other existing conditions of the licence with the same outcomes of preventing windblown wastes, the Delegated Officer considers that leveling and compaction by the end of the day in which the waste was received is a reasonably practical timeframe. The requirement has been amended accordingly.
	Plastic and Tyres – need more time to level and compact due to their bulky nature, they can't be covered with just sand. So we need other inert waste to push it down and compact it so it stays put. This can take a week. (this does not include plastic waste that can be of risk of windblown. That needs to be covered same time and being pushed out).	In relation to used tyres and the additional requirements surrounding compaction, the Delegated Officer has modified the cover requirements table so that used tyres have different requirements to other forms of Inert Waste Type 2.
	Inert Type 1 – by end of day.	
	Asbestos – if wrapped, by end of day. If unwrapped – immediately. I would stay clear of having "hours" on there, becomes another trap we can too easily fall into.	
	If by end of day, then all the work processing the waste on the landfill received that day has to be finished before closing up for the night.	
3 – Table 2 Waste processing (Category 13 and 62 load inspection and asbestos management	In a meeting held on 1 November 2021 to discuss the draft amendment, the Licence Holder stated that requirements related to managing potential asbestos in construction and demolition waste loads are in a difficult to read format and uses terminology slightly different to other licences for	The Delegated Officer has amended the licence to reflect the standard condition format that is currently used for construction and demolition waste load inspections.

Condition	Summary of Licence Holder's comment	Department's response
requirements)	construction and demolition waste facilities. The Licence Holder requested that the requirements be standardised and removed from the table for inclusion in the body of the licence, in alignment with the formatting used for their other Eco Resources premises.	
4 - Table 3 Cover Requirements	Inert Waste Type 2 Timescale now is to cover "immediately". However that is unrealistic and in a scenario whereby we are being inspected by DWER and a load comes in, we are unable to cover immediately and would be in breach of this condition. This has occurred with wrapped asbestos being tipped during an inspection and not being covered immediately due to the officer being with our operator and they can't be in two places at once. It is too easy to be entrapped by this condition. There was no problem with "as soon as practicable" as it is always done that day and we have never had an issue.	The Delegated Officer considers that statements like <i>as soon as practicable</i> are too ambiguous and difficult to enforce. Wording a condition in such a way is generally not in line with the <i>Guidance Statement: Setting Conditions</i> . In consideration of the issues raised in the comment, the Delegated Officer has modified the requirement so that cover must be applied immediately after the waste is levelled and compacted.
	See above, any plastic waste with the potential to become windblown needs to be covered once levelled and compacted. Avoid putting hours on it. Just has to be done as part of the levelling, compacting and covering process, same day and as soon as possible.	
	<u>Special Waste Type 1</u> All timeframes that are "immediately" need to be reviewed. As explained in cases whereby we are conducting a 3 hour inspection with DWER officers there is room for things not to be done immediately and will be done after the officers have finished their inspection. However if officers are bound to enforce these conditions, in these situations we are forced to stop work and ensure a safe worksite for officers to conduct their inspections, we are	In the context of accepting unwrapped asbestos contaminated soils at the premises, it's crucial that this type of asbestos waste is covered immediately after deposit so that a barrier is provided to prevent the potential emission of asbestos fibres. In the case of wrapped asbestos wastes a barrier is already provided as long as the wrapped waste is deposited in a manner that doesn't cause damage.
	unable to comply all at the same time We cannot be covering wrapped asbestos loads that have been tipped when DWER want to inspect the cell at the same time. Also compliance officer refuse to "wait" and take the hard handed approach that they must immediately catch you in the act, therefore don't even allow a moment to finish the job before they drive up directly to the cell and then subsequently	The Delegated Officer will modify the cover timescale for Special Waste Type 1 to make a distinction between wrapped and unwrapped asbestos. Unwrapped asbestos will be required to be covered immediately after deposit and wrapped asbestos will be required to be covered prior to compaction or by the end of the working day.
	issue these notices.	The Delegated Officer has also made further modifications to the cover requirements to provide additional clarity on material depths and further align the requirements with other similarly sited category 63 prescribed premises.
		It is the responsibility of the Licence Holder to ensure that appropriate resources are provided to comply with the

Condition	Summary of Licence Holder's comment	Department's response
		conditions of the licence.
5 - Table 4 Infrastructure and Equipment Requirements	Infrastructure location it is only listed landfill cells 1-5. Should this not refer to Cells 1-13? To cover the entire landfill for this requirement.	Only the completed landfill cells that the Department has assessed for compliance have been listed, in accordance with W6362/2020/1 and previous works approvals.
		However, the Delegated Officer has become aware that a compliance report for the constructed Cell 13 has been submitted. The compliance report for Cell 13 has been assessed and deficiencies relating to required separation distances to groundwater have been noted. The department is currently determining what further actions may be required in relation to this matter.
		To prevent further delays in issuing this amendment, Cell 13 will not be listed and a subsequent amendment to include the cell will be required at a later date.
		Separate corresponded in relation to the 'as-constructed' Cell 13 will be provided in due course to address and further clarify compliance with works approval W6362/2020/1.
	<u>GPS Coordinates</u> I have instructed a surveyor to come to site and obtain this information for you. I will update our plans as well so that all the plans in our licence are current. If you can wait for that information to come back to you.	The information has been incorporated into the Revised Licence.
9 - Table 5 Waste accepted onto and removed from the premises	<u>Waste outputs</u> Where it states that "Waste Type as defined in the Landfill Waste Classification and Waste Definitions 1996" this document does not give all the waste outputs which we class as recyclables. This condition is not clear as to the naming of the waste types and how it applies to our facility.	This section of the table corresponds to both waste outputs and rejected loads. As it includes rejected loads, the Delegated Officer is unable to list specific waste types as rejected loads have the potential to be any type of waste that is unable to accepted at the Premises.
	as to the harming of the waste types and now it applies to our facility.	For the purposes of reporting under the conditions of a licence, a detailed breakdown on the type of recyclable outputs from the Premises is not necessary. Only the broader waste types already referred to in the licence and those contained in the Landfill Definitions are relevant for confirming compliance with licence conditions.
	In a meeting held on 1 November 2021 to discuss the draft amendment, the Licence Holder stated that a weighbridge is present at the site and the	The unit has been changed to tonnes.

Summary of Licence Holder's comment	Department's response
quantity of Special Waste Type 1 inputs to the Premises would always be determined by weight and not volume.	
For our other licences, we have 60 days to submit our audit of our compliance. Are we able to obtain the same time frames for this	The timeframe has been changed to 60 days in the Revised Licence.
Also other suggestion is that can our Annual Period align with the period for Waste Data Online Reporting? Being 1st July to 30th June each year? Then I will be able to provide the same information for input/outputs to both reporting requirements rather than having different figures for each report	The annual period will be changed to align with the WARR Act reporting period in the Revised Licence. Please be aware that the first set of annual reports submitted after the Revised Licence is granted will need to include
as the months do not match up being that this licence is 1st Sept to 31st August. (Update Annual Period)	information for July 2021 and August 2021.
In the report on page 9 it states that we have had multiple non-compliances with the management of risks associated with landfilling asbestos. I would argue that this is not true, there never has been a risk at all and is an extreme comment to make. We have had inspections whereby a corner of black plastic was poking out due to overwrapping and could be seen sticking out under the 300mm cover spread over the top and this extra plastic was covered up immediately. Only on one occasion was an entire load of asbestos, completely wrapped and safe, left uncovered and that was due to inspectors being onsite during the tipping off and the operator being detained so could not advise staff to manage the risk. I have addressed this in letters to DWER previously.	The language in the report will be changed to refer to non- compliances with asbestos conditions being documented, rather than referring to risk.
There has been no risk with asbestos that is wrapped and contained being disposed to our landfill. Millar Rd Landfill has the condition "To be covered with 300mm of soil or 1000mm of inert waste type 1 as soon as practicable and before compaction" and they are a much busier landfill with general public in attendance. Their risks to the public and environment would be far greater. We urge DWER to allow us a similar condition to comply with, it is erroneous to continue to stipulate a condition that can cause non-compliance immediately as the word immediately does not allow for anytime at all.	As stated above, it's critical that the unwrapped asbestos waste is covered immediately after deposit. The Delegated Officer will modify the cover timescale to be two different requirements depending on if the asbestos waste is wrapped or not. The Department's efforts to amend the conditions of existing licences to use language that makes compliance obligations clear and enforceable is still ongoing. These types of conditions in the licences for other premises will be revised during future amendments.
	quantity of Special Waste Type 1 inputs to the Premises would always be determined by weight and not volume. For our other licences, we have 60 days to submit our audit of our compliance. Are we able to obtain the same time frames for this Also other suggestion is that can our Annual Period align with the period for Waste Data Online Reporting? Being 1st July to 30th June each year? Then I will be able to provide the same information for input/outputs to both reporting requirements rather than having different figures for each report as the months do not match up being that this licence is 1st Sept to 31st August. (Update Annual Period) In the report on page 9 it states that we have had multiple non-compliances with the management of risks associated with landfilling asbestos. I would argue that this is not true, there never has been a risk at all and is an extreme comment to make. We have had inspections whereby a corner of black plastic was poking out due to overwrapping and could be seen sticking out under the 300mm cover spread over the top and this extra plastic was covered up immediately. Only on one occasion was an entire load of asbestos, completely wrapped and safe, left uncovered and that was due to inspectors being onsite during the tipping off and the operator being detained so could not advise staff to manage the risk. I have addressed this in letters to DWER previously. There has been no risk with asbestos that is wrapped and contained being disposed to our landfill. Millar Rd Landfill has the condition "To be covered with 300mm of soil or 1000mm of inert waste type 1 as soon as practicable and before compaction" and they are a much busier landfill with general public in attendance. Their risks to the public and environment would be far greater.

Condition	Summary of Licence Holder's comment	Department's response
4	This needs to be removed as it is not practical the way it is written. What is "routinely". We don't wet loads as they enter the premises, nor prior to unloading. Can be during unloading to avoid dust lift off, and afterwards if the weather is dry and dependant on the material. As long as dust lift off is mitigated as to not cross our boundaries this is the purpose of wetting material. So we don't need to be watering loads prior and after.	The condition is derived from the <i>Guideline</i> - <i>Managing</i> <i>asbestos at construction and demolition waste recycling</i> <i>facilities.</i> In consideration of the guideline, the Delegated Officer considers the key requirement of the condition is for the waste load to be damp for tipping and inspection. To allow for more flexibility the condition wording will be changed to: The licence holder must ensure all loads of construction and demolition waste are damp when unloading and maintained in a damp state throughout the inspection process
5	Weighbridge video cameras capture the loads (untarped) and the driver and waste details are recorded at the bridge. That this is our visual inspection at the point of acceptance. Further inspection at the transfer station (prior and during unloading) is done to determine any risk. Can you confirm that this meets this condition?	Inspection via camera imaging will meet the requirements of the condition provided that the video feed is being observed by an operator in real-time.
10	This needs to apply to the crushed and recycled sand product/activities only. We don't test any other product or separate by 3m distance. So can you specify that this is the product that this condition refers to.	The term product will be changed to recycled outputs. Recycled outputs is already defined in the licence as product arising from crushing, screening and/or blending of building materials, for use (e.g. general construction, road construction, drainage works) on or off the Premises, including recycled drainage rock, recycled road-base and recycled sand. Use of this term will clearly define what the condition applies to.
10 (b) and (c)	The previous version of this condition also allowed separation with impermeable barriers. Can you add this, as we will eventually build concrete block walls between the stockpiles when we finally do crushing.	Reference to separation via impermeable concrete barries was omitted by mistake and will be added.
11	This condition refers to a condition 100 and should refer to condition 10.	This error will be corrected.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)						
Application type						
Works approval						
		Relevant works approval number:		None		
		Has the works complied with?				
Licence		Has time limited of works approva acceptable operat		Yes □	No 🗆 N/A 🗆	
			ompliance Report / nent Infrastructure	Yes □	No 🗆	
		Date Report recei	ved:			
Renewal		Current licence number:				
Amendment to works approval		Current works approval number:	proval			
		Current licence number:	L8651/2012/1	-	-	
Amendment to licence		Relevant works approval number:		N/A		
Registration		Current works approval number:		None		
Date application received						
Applicant and Premises detail	s					
Applicant name/s (full legal name/s)		Waroona Resources Pty Ltd				
Premises name		Premium Waste Management				
Premises location		Lot 15 on Deposited Plan 59265				
Local Government Authority		Shire of Waroona				
Application documents						
HPCM file reference number:		DWERT1892~1				
Key application documents (add to application form):	Key application documents (additional to application form):		Amendment Report Environmental Management Plan			
Scope of application/assessment						

	Licence	amendment t	:0:	
				I Map on our licence to match the ells reduced from 14 to 13 cells).
Summary of proposed activities changes to existing operations.	r	carpet and r currently appr Inert Waste T rubber foam a waste types Resources w based synthe	rubber roved Type 2 are no and vill ac etics) o	acceptance conditions to include foam. Waroona Resources is to receive Inert Waste Type 1 and 2. Non-biodegradable carpet and ot included in the list of approved requires inclusion. Waroona cept non-biodegradable (plastic carpet and rubber foam, which is Vaste 2 under existing approvals.
				landfill covering frequency- from lacement to 'end of day'
Category number/s (activities that c	se the pren	nises to beco	me pre	escribed premises)
Table 1: Prescribed premises categ	ies			
Prescribed premises category and description	assessed pr apacity			production or design capacity
Category 13: Crushing of building material	50,000 tonnes per annual period			N/A
Category 61A: Solid waste facility	35,000 tonnes per annual N/A period		N/A	
Category 62: Solid waste depot	00,000 tor eriod	nnes per ar	nnual	N/A
Category 63: Class I inert landfill site	50,000 tor eriod	nnes per ar	nnual	N/A
Legislative context and other app	ovals			
Has the applicant referred, or do			F	Referral decision No:
intend to refer, their proposal to EPA under Part IV of the EP Act a		No 🖂	Ν	lanaged under Part V □
significant proposal?			A	Assessed under Part IV \Box
Does the applicant hold any exis Part IV Ministerial Statements releve to the application?		No 🖂		/inisterial statement No: EPA Report No:
Has the proposal been referred an assessed under the EPBC Act?	or Yes □	No 🖂	F	Reference No:
			C	Certificate of title □
Has the applicant demonstra	bd		C	General lease Expiry:
occupancy (proof of occupier statu		No 🗆		∕lining lease / tenement □ Expiry:
			C	Other evidence Expiry:

Has the applicant obtained all relevant		Approval:
planning approvals?	Yes □ No □ N/A ⊠	Expiry date:
		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: Kwinana Peel
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 <u>WQPN 25</u>)? 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)	Yes 🛛 No 🗆	Environmental Protection (Controlled Waste) Regulations 2004
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ⊠ No □	Peel Harvey EPP
Is the Premises subject to any EPP requirements?	Yes 🛛 No 🗆	

Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes □ No ⊠	Classification: N/A Date of classification: N/A
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