



## Application for licence

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

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<b>Licence number</b>	L8906/2015/2
<b>Licence holder</b>	Tambo Nominees Pty Ltd
<b>ACN</b>	008 838 506
<b>DWER file number</b>	DER2015/001572-1
<b>Premises</b>	TSR Tammin (Tambo Nominees trading as Tyre Storage & Recovery WA)  Avon Loc 12967 on Plan 132424, Yorkrakine Road TAMMIN WA 6409 Certificate of Title 2822 Folio 838
<b>Date of report</b>	2 October 2019
<b>Decision</b>	Licence granted

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# 1. Definitions

Key terms relevant to this decision report and their associated definitions are listed in **Table 1**.

**Table 1: Definitions**

Term	Definition
Applicant	Tambo Nominees Pty Ltd
Category / categories	Categories of prescribed premises as set out in Schedule 1 of the EP Regulations.
Decision Report	refers to this document.
Delegated Officer	An officer delegated under section 20 of the EP Act.
Department	The department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of the <i>Environmental Protection Act 1986</i> along with other legislation.
Emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of, and during this Review
Licence Holder	Tambo Nominees Pty Ltd
Minister	the Minister responsible for the EP Act and associated regulations
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (WA)</i>
Occupier	has the same meaning given to that term under the EP Act.
Prescribed premises	This has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report

Term	Definition
Risk Event	As described in <i>Guidance Statement: Risk Assessment</i>
UDR	<i>Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)</i>

## 2. Licence and amendment history

Table 2 provides the amendment history for L8906/2015/2.

**Table 2: Licence amendments**

Instrument	Issued	Nature and extent of works approval, licence or amendment
W5336/2012/1	14/03/2015	New Works Approval
L8906/2015/1	05/10/2015	Licence granted
L8906/2015/1	02/07/2018	Amendment Notice 1 – Expiry date amended to 04/10/2018
L8906/2015/1	21/09/2018	Amendment Notice 2 – Expiry date amended to 04/10/2019
L8906/2015/2	02/10/2019	Amalgamation of previous amendment notices 1 and 2 and Licence renewal

### 3. Purpose and scope of assessment

This assessment is for the renewal of existing licence (L8906/2015/1). An application for a licence renewal was submitted to the Department of Water and Environmental Regulation (DWER) by Tambo Nominees Pty Ltd (the Applicant) on 26 July 2019, for the operation of a Category 63 Class I landfill and issue of a revised licence. As part of the licence revision DWER will incorporate Amendment Notices 1 and 2.

This decision document explains how DWER has assessed and determined the application and provides a record of DWER's decision-making process and how relevant factors have been taken into account. This document is limited to DWER's assessment and decision making under Part V of the Environmental Protection Act 1986 (EP Act). Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

### 4. Application details

This Licence renewal is for the operation of a Category 63 Class I inert landfill site established under works approval W5336/2012/1 and licensed under the existing licence (L8906/2015/1).

Table 3 lists the documents submitted during the assessment process.

**Table 3: Documents and information submitted during the assessment process**

Document/information description	Date received
Completed Licence Application Form	26 July 2018
Shire of Tammin Planning Approval	
Premises Proposed Activities	
Shire of Tammin Extension of Development Approval	

### 5. Overview of existing Premises

TSR Tammin (the premises) is located on Lot 12967, Yorkrakine Road, Tammin approximately 12 km north of the Tammin townsite. The area is zoned for agriculture use under the Shire of Tammin Town Planning Scheme.

Table 4 describes the prescribed preemies category and current capacity.

**Table 4: Classification of premises and assessed design capacity**

Category	Description	Assessed production or design capacity or throughput
Category 63	Class I inert landfill site: premises on which waste (as determined by reference to the waste type set out in the document entitled "Landfill Waste Classification Definitions 1996" published by the Chief Executive Officer and as amended from time to time) is accepted for burial.	5 000 tonnes per annual period

## 6. Description of proposed activities

The premises is operated by the Applicant as a Category 63 prescribed premises that accepts up to 5 000 tonnes of baled tyres and whole tyres per year for burial. No shredded or cut tyres or any other waste types are permitted to be accepted or stored under the current licence.

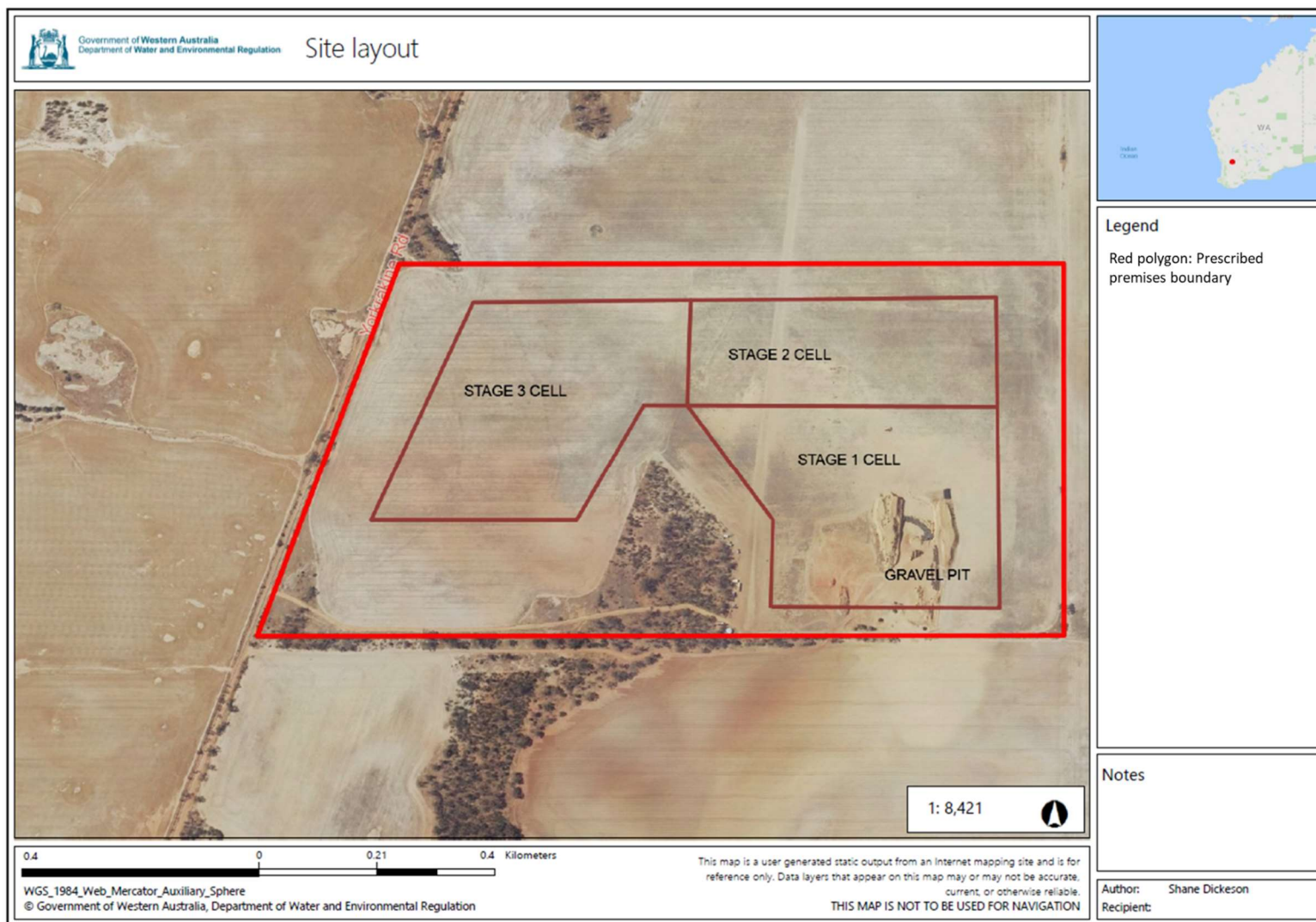
Cells at the premises have previously been excavated to a size of 45 m x 4 5m and to a maximum depth of 8 m. Tyre bales or whole tyres are received on site and immediately placed into cells, packed tightly and covered with a minimum of 500 mm cover fill, followed by a final cover of 1 m of cover fill.

Under the existing licence, tyre cells are required to be plotted and logged with GPS points for future recovery.

The applicant has not requested any changes to be made to the existing licence conditions as part of the renewal application.

The site layout and premises boundary is shown in Figure 1.

Figure 1: Site Layout



## 6.1 Legislative context and other approvals

Approvals relevant to the premises are outlined in the Table 5 below.

**Table 5: Summary of emissions and applicant controls**

Legislation	Number	Approval
Planning and Development Act 2005 (as amended)	ASS-137	Local government planning approval Expires on 21 February 2033

## 7. Emission sources, receptors and pathways

### 7.1 Emissions

The potential for emissions to impact on sensitive receptors has been assessed in accordance with the Department's Risk Framework.

The key emissions considered during premises operation are smoke and contaminated surface water from potential fires; dust and noise from activities involving excavation of cells, equipment use and vehicle moving during receipt of baled tyres; and leachate contamination of surface and groundwater from the long term burial of baled tyres on the premises.

The Applicant has proposed measures to assist in controlling these emissions, where necessary. The control measures are outlined in Section 7 below and have been considered when undertaking the risk assessment detailed in Section 8.

### 7.2 Environmental Siting

#### 7.2.1 Potential receptors and environmental aspects

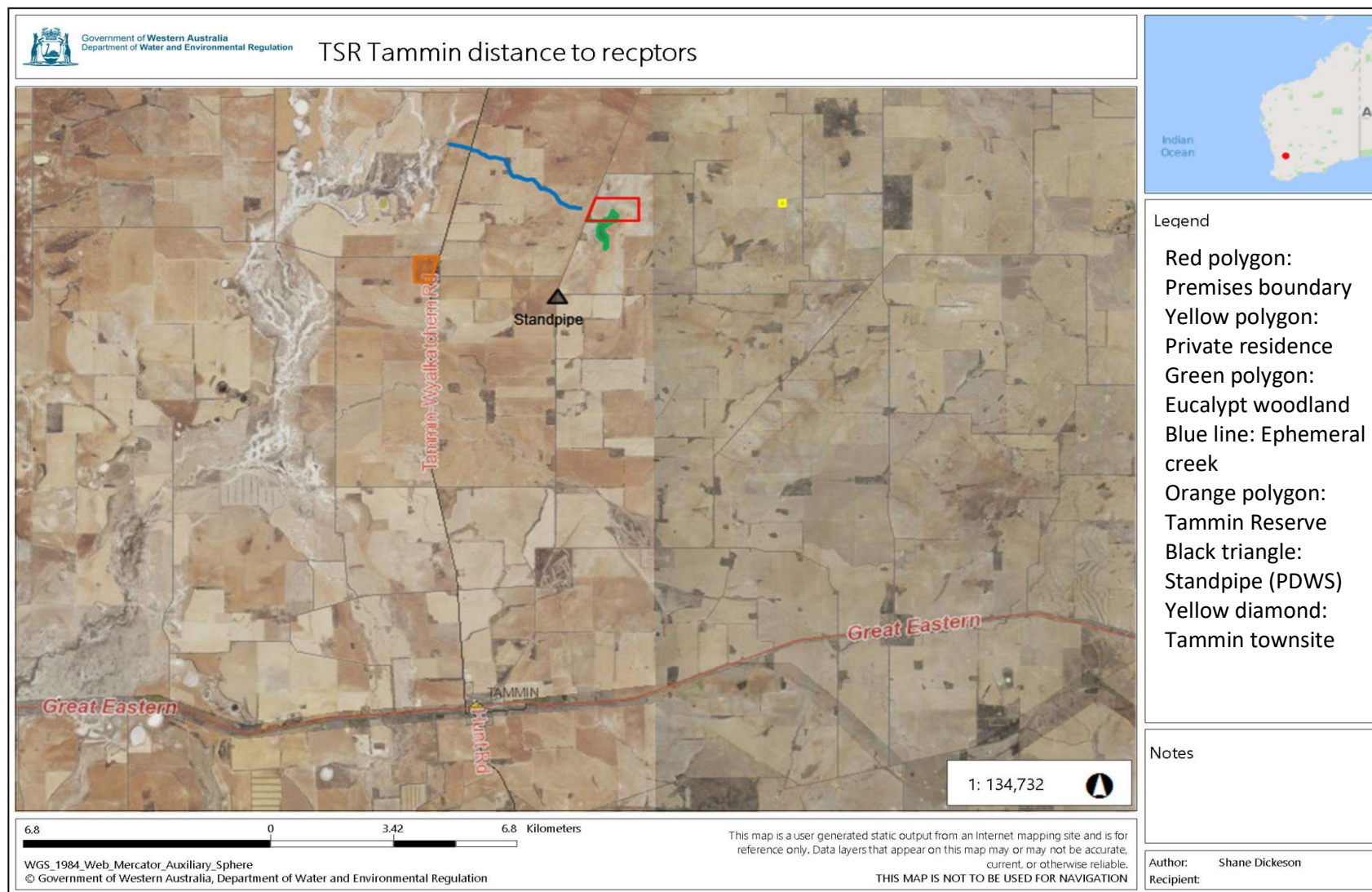
Risk is assessed as a combination of emission sources, the proximity and sensitivity of receptors to those emission sources and any pathways that can allow the emission to reach and potentially harm the receptor. Figure 2 and Table 6 below provide a summary of human and environmental receptors in proximity to the premises which have a potential to be impacted from site activities. The risk assessment in Section 8 considers these receptors in the context of emissions and potential pathways.



**Table 6: Relevant human and environmental receptors**

<b>Human receptors</b>	<b>Distance from activity / prescribed premises</b>
One private residence	Approximately 3 km (east)
Tammin townsite	Approximately 12 km (south)
<b>Environmental receptors</b>	<b>Distance from activity / prescribed premises</b>
Threatened ecological communities	Eucalypt woodland (Critically Endangered – Priority 3) Approximately 6 ha located within and along the southern boundary of the premises. Based on estimated depth to groundwater, vegetation is not likely to be groundwater dependent.
Ephemeral creek (unnamed)	Approximately 400 m (west) Unlikely to support significant ecosystems based on the flow regime.
Native vegetation and native fauna Habitat	North Tammin Nature Reserve located approximately 4.5 km (south-west)
Groundwater	Depth to groundwater unknown – estimated deeper than 15 m (Section 7.2.1)
Major watercourses/waterbodies	None identified within 2 km proximity
Wetlands	None identified within 2 km proximity
<b>Environmental aspects</b>	<b>Distance from activity / prescribed premises</b>
Standpipe – emergency (likely non-potable) water supply	Approximately 2.3 km (south-west) Not located directly downgradient of the premises

**Figure 2: Distance to receptors**



### 7.2.1 Geology, hydrogeology and hydrology

The area is typical of the Wheatbelt region within the Avon River Catchment. The premises is described as 64 ha of undulating, well drained agriculture land comprising of sand over gravel over ironstone base. A land survey report (*Corrigan area land resources survey, 2004*) describes the surface soils to consist of rocky, red and greyish brown loamy sands and sandy loams formed from weathered bedrock.

Exploratory drilling at the premises shows average depths of topsoil and gravel of 8 m to impervious rock base with no groundwater observed during the investigation. Depth to groundwater or direction of groundwater flow could not be determined by on site sampling, however the Licence Holder estimates groundwater in the area is found deeper than 15 m, based on the observations made during site excavation activities.

The Perth Groundwater Map notes that depth to groundwater at Kellerberrin (site ref: 61515154) located 8 960 m from the premises, is estimated at approximately 16.1 m below ground level.

The closest body of water/surface water is an ephemeral creek located 400 m west of the premise boundary. It is likely to only flow following rainfall.

### 7.3 Pathways

As dust, noise and smoke are considered potential emissions, the prevailing wind direction has been considered. Using information available on the Bureau of Meteorology's website, the closest available weather station for climate data is Kellerberrin (No. 010073). Based on the climate data for Kellerberrin station (January 1957 to August 2019), the prevailing wind direction is north-east to south-east in the morning and west to north-west in the afternoon.

As leachate and contaminated surface water are considered potential emissions during operations, pathways to groundwater and surface waters have been considered.

Based on the climate data for Kellerberrin station (1892 to Sept 2019) 330 mm. The Shire of Tammin has estimated that the area receives an average annual rainfall of 350 mm mainly in the winter months. The Bureau of Meteorology estimates evaporation rates of 2000 to 2400 mm per year.

The Department's online Perth Groundwater Map identifies that the surface geology nearby at Kellerberrin (site ref: 61515154) consists of weathered sandstone, kaolin, soft granite. The weathered sands are considered to provide permeability which may allow a pathway for leachate to reach groundwater where ground is not compacted or covered by low permeability material.

These pathways have been considered in the risk assessment table in Section 8.

### 7.4 Applicant controls

The Applicant has proposed the following management measures/controls as part of the application. These are summarised in Table 7.

**Table 7: Summary of emissions and applicant controls**

Source	Emission (as identified above)	Proposed controls
<p>Topsoil disturbance during excavation and replacement of topsoil and machinery movements (i.e. loader and trucks).</p>	<p>Dust</p>	<p>Excavation in stages/cells. All facilities will move across the resource in a staged manner;</p> <p>Topsoil will be spread directly onto areas of rehabilitation, or stored in dumps approximately 0.5 meters high if it cannot be spread directly;</p> <p>Adequate buffers to sensitive premises at all times;</p> <p>Maintain haul road and hardstand surfaces in good condition, free of pot holes, rills and sand spillages and with suitable grades;</p> <p>Maintain road trucks in clean condition;</p> <p>Conduct training programs on dust minimisation practices;</p> <p>Provide a complaints recording, investigation, action and reporting procedure; and</p> <p>Restrict operating times to 6am – 6pm Monday to Saturday inclusive.</p>
<p>Machinery movements (i.e. loader and trucks).</p>	<p>Noise</p>	<p>Maintain adequate buffers to noise sensitive premises;</p> <p>Locate exposed features behind natural barriers and landform;</p> <p>Push overburden dumps into positions where they can form screening barriers;</p> <p>Maintain all plant in good condition with efficient mufflers and noise shielding;</p> <p>Maintain haul roads and hardstand surfaces in good condition, free of pot holes, rills and sand spillages with suitable grades;</p> <p>Shut down equipment when not in use;</p> <p>Fit warning lights, rather than audible beepers, on mobile equipment;</p> <p>Use transport routes that minimise community disruption;</p> <p>Avoid the use of engine braking on delivery trucks in built up areas;</p> <p>Conduct training programs on noise minimisation practices;</p> <p>Provide a complaints recording, investigation, action and reporting procedure; and</p> <p>Restrict operating times to 6am – 6pm Monday to Saturday inclusive..</p>

Source	Emission (as identified above)	Proposed controls
Storage of tyres	Leachate	<p>Cells will be plotted and logged by GPS prior to burial, allowing for exact positioning and future recovery.</p> <p>Excavation will not take place below the water table and dewatering is not required</p>
	Smoke, particulates and noxious vapours in the event of a fire or other incident.	<p>The risk of uncontrolled fire outbreaks can be managed by appropriate covering of cells.</p> <p>Firefighting capacity at the facility will include a 75,000 litre tank connected to the scheme water that runs down the boundary of the property. A firefighting pump will also be connected and a 2,000 litre mobile fire unit which will be stored on site.</p> <p>Firebreaks to be maintained by the Applicant</p>

## 8. Risk assessment

The identification of the sources, pathways and receptors to determine Risk Events are set out in Table 8 below, consistent with the Guidance Statement: Risk Assessments. Risk ratings have been assessed for each key emission source and take into account potential source-pathway-receptor linkages. The mitigation measures / controls proposed by the Applicant have been considered in determining the risk rating. Emissions during construction and operation have been assessed separately to allow clear delineation of activity phases.

The conditions in the Licence, as summarised in Table 8 have been determined in accordance with the Guidance Statement: Setting Conditions.

**Table 8: Identification of emissions, pathway and receptors during operation**

Risk Event				Consequence rating <sup>1</sup>	Likelihood rating <sup>1</sup>	Risk <sup>1</sup>	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Excavation and earthworks activities Vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenity of closest human receptors (private residence) approximately 3 km east,	Managed excavation and soil replacement activities, maintenance of buffers and access roads, Maintenance of equipment, training, hours of operation and complaint recording  Refer to Table 7 for details	Minor	Unlikely	Low	Based on the nature of the activities and the distance to receptors, the Applicant's proposed dust mitigation controls are likely to be sufficient at mitigating dust emissions.	Fugitive emissions may be regulated by Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)
		Air/windborne pathway causing impacts to surface water quality on seasonal minor surface water ephemeral creek system (located 400 m from premises boundary).		Minor	Unlikely	Low		
		Air/windborne pathway causing impacts to threatened ecological communities (closest identified located along premises south boundary)		Minor	Unlikely	Low		

Risk Event				Consequence rating <sup>1</sup>	Likelihood rating <sup>1</sup>	Risk <sup>1</sup>	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Excavation activities Vehicle movements	Noise	Air/windborne pathway causing impacts to health and amenity of closest human receptors (private residence) approximately 3 km east.	Maintain adequate noise buffers and locate exposed features behind natural barriers, and overburden dumps; Maintenance of equipment, haul roads, operating training, route planning, hours of operation and complaint recording  Refer to Table 7 for details	Moderate	Unlikely	Medium	The proposed operational time of 6am is considered as 'night-time' hours in the Environmental Protection (Noise) Regulations (EP Noise Regulations) and is afforded a lower assigned decibel level. The Applicant has not provided information to demonstrate compliance with the EP Noise Regulations.  Based on the nature of the activities and the distance to receptors, the Applicant's proposed dust mitigation controls are likely to be sufficient at mitigating noise emissions.	Regulatory controls require applicant to maintain a complaints register  Fugitive emissions may be regulated by Environmental Protection (Noise) Regulations 1997 (WA)



Risk Event				Consequence rating <sup>1</sup>	Likelihood rating <sup>1</sup>	Risk <sup>1</sup>	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Storage and burial of tyres	Leachate: generated from surface water infiltration may contain contaminants from the tyres	Where contamination occurs through overland runoff, infiltration or seepage of surface water, water quality downgradient of the premises (surface water and groundwater) may be impacted	Cells will be plotted and logged by GPS prior to burial, allowing for exact positioning and future recovery.  Excavation will not take place below the water table and dewatering is not required	Minor	Possible	Medium	Based on the estimated depth to groundwater and the distance to, and nature of surface water receptors, Applicant's proposed controls are likely to be sufficient at mitigating leachate emissions.	Conditions require Applicant to maintain cover over the landfill to abate surface water infiltration and generation of leachate.



Risk Event				Consequence rating <sup>1</sup>	Likelihood rating <sup>1</sup>	Risk <sup>1</sup>	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
	Smoke, particulates and noxious vapours in the event of a fire or other incident.	Air/windborne pathway causing impacts to health and amenity of closest human receptors (private residence) approximately 3 km east.	<p>The risk of uncontrolled fire outbreaks can be managed by appropriate covering of cells.</p> <p>Firefighting capacity at the facility will include a 75,000 litre tank connected to the scheme water that runs down the boundary of the property. A firefighting pump will also be connected and a 2,000 litre mobile fire unit which will be stored on site.</p> <p>Firebreaks to be maintained by the Applicant</p>	Moderate	Rare	Medium	<p>Although impacts to receptors are considered moderate, the likelihood of an adverse event occurring would only occur in exceptional circumstances. The Applicant's proposed controls are considered to be suitable for mitigating fire and other incident risks.</p>	<p>Fire controls will be included as regulatory controls in the licence to ensure compliance with proposed controls.</p>

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

## 9. Consultation

**Table 22: Summary of consultation**

Method	Comments received	DWER response
Application advertised on DWER website (20-27 September 2019)	None	N/A
Applicant referred draft documents (26 September 2019)	Applicant waived comment period	N/A

## 10. Conclusion

Based on the assessment in this decision report, the Delegated Officer has determined that the application to renew licence L8906/2015/2 will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

**Tracey Hassell**  
**A/MANAGER WASTE INDUSTRIES**

*An officer delegated by the CEO under section 20 of the EP Act*

## Appendix 1: Key documents

Document title	Availability
Licence (L8906/2015/1) application form and supporting documentation (July, 2015)	DWER records (A981649)
Amendment Notice 1 (L8906/2015/1) (July, 2018)	DWER records (DWERDT72844)
Amendment Notice 2 (L8906/2015/1) (September, 2018)	DWER records (A1723192)
DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	
DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	
DER, September 2016. <i>Guidance Statement: Environmental Standards</i> . Department of Environment Regulation, Perth.	
DER, November 2016. <i>Guidance Statement: Environmental Siting</i> . Department of Environment Regulation, Perth.	
DER, February 2017. <i>Guidance Statement: Land Use Planning</i> . Department of Environment Regulation, Perth.	
DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	
DER, June 2019. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	
DWER, June 2019. <i>Guideline: Industry Regulation Guide to Licensing</i> . Department of Water and Environmental Regulation, Perth.	