



## Application for Works Approval Amendment

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

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<b>Works Approval Number</b>	W6225/2019/1
<b>Works Approval Holder</b>	Shire of Ashburton
<b>File Number</b>	DWERVT1867
<b>Premises</b>	Pilbara Regional Waste Management Facility Lot 550 and Lot 551 on Plan 414367, being Reserve 53324 Onslow Road TALANDJI WA 6710 Certificate of Title: Volume LR3169, Folio 963
<b>Date of Report</b>	4 February 2021
<b>Proposed Decision</b>	Revised works approval granted

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

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## 1. Decision summary

Works Approval W6225/2019/1 is held by the Shire of Ashburton (Works Approval Holder) for the Pilbara Regional Waste Management Facility (the Premises), located at Lot 550 and Lot 551 on Plan 414367, being Reserve 53324.

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 construction and operation of the Premises. As a result of this assessment, Revised Works Approval W6225/2019/1 has been granted.

The revised Works Approval issued as a result of this amendment consolidates and supersedes the existing Works Approval previously granted in relation to the Premises.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

### 2.2 Application summary

On 23 September 2020, the Works Approval Holder applied to the department to amend Works Approval W6225/2019/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The amendment is being sought for Category 62 activities pertaining to the storage and processing area for greenwaste, scrap metal and C&D waste, referred to in Works Approval W6225/2019/1 as the Bulk Waste Area. The Works Approval holder seeks the amendment based on the view that the permeability requirement for the hard stand is overly conservative and notes that the following with regards to the premises and proposed activities:

- Area of low average annual rainfall and high evaporation;
- High level of proposed pre-screening of accepted waste;
- Low leachable contaminant potential to groundwater of associated waste streams for storage; and
- Scarcity of locally sourced low permeability clay soils able to meet Condition 1 of the existing Works Approval.

Table 1 below outlines the proposed changes to the existing Works Approval.

**Table 1: Proposed design changes**

Category	Current design requirement	Proposed design requirement	Description of proposed amendment
62: Solid waste depot	Hardstand permeability of no greater than $1 \times 10^{-9}$ m/s	Hardstand permeability of $1.6 \times 10^{-7}$ to $4.9 \times 10^{-9}$ m/s and added minimum thickness of 200mm	Increased hardstand permeability to facilitate construction using <i>in situ</i> onsite soils with a thickness requirement to assist uniformity across base

### 3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guidance Statement: Risk Assessments* (DER 2017).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

#### 3.1 Source-pathways and receptors

##### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Amendment Report are detailed in Table 2 below. Table 2 also details the proposed control measures the Works Approval Holder has proposed to assist in controlling these emissions, where necessary.

**Table 2: Works Approval Holder controls**

Emission	Sources	Potential pathways	Proposed controls
Leachate	Storage and processing of green waste	Seepage to soils and groundwater	Hardstand permeability range between $1.6 \times 10^{-7}$ m/s to $4.9 \times 10^{-9}$ m/s; Drainage collection system; and Hardstand graded to 1 in 200 towards drainage collection system.
	Storage and processing of C&D waste; and storage of scrap metal	Expression or overland flow to surface water	Hardstand permeability range between $1.6 \times 10^{-7}$ m/s to $4.9 \times 10^{-9}$ m/s; Pre-acceptance screening of C&D waste to limit leachable contaminants; and Pre-acceptance drainage of vehicles to limit coolant and lubricant spillage.

##### 3.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), the Delegated Officer has excluded employees, visitors and contractors of the Works Approval Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guidance Statement: Environmental Siting* (DER 2016)).

**Table 3: Sensitive human and environmental receptors and distance from prescribed activity**

<b>Human receptors</b>	<b>Distance from prescribed activity</b>
Pastoral stations and leases	Lands used for agricultural purposes (grazing) on Minderoo and Peedamulla station extend from ~3.2 km west and ~8 km north of the Premises. Minderoo Station homestead is located ~20 km south-west of the Premises. Peedamulla Station homestead and campground are located ~40 km east north east of the Premises.
Onslow town site and industrial areas	Wheatstone oil and gas worker accommodation is located ~22 north-west of the Premises. Onslow town site is located ~30 km north-west of the Premises.
Users of Conservation Park (existing and proposed) Cane River Conservation Park (CRCP)	The proposed extension to the CRCP includes all lands surrounding the Premises except easements associated with the Onslow Road and associated infrastructure.  The boundary of the proposed extension to the CRCP is located between 150 m and 1,500 m from the PRMWF infrastructure.
<b>Environmental receptors</b>	<b>Distance from prescribed activity</b>
Cane River Conservation Park (CRCP)	Current: located approximately 32 km south-east. Proposed extension: Surrounding the Premises, between approximately 150 m and 1,500 m from the PRMWF infrastructure. No management plan has been published for the existing or proposed extension to the CRCP.  Consistent with Section 56 of the CALM Act, the purpose of conservation parks is to conserve the natural environment, protect flora and fauna and preserve features of archaeological, historic or scientific interest while providing for suitable levels of public recreation.
Public Drinking Water Source Area (PDWSA) under the Country Areas Water Supply Act 1947	The Cane River Water Reserve Priority 1 PDWSA is located approximately 21.1 km north-east (upgradient) of the Premises.
Surface Waters: River systems	The Premises is located along the divide of the Ashburton River and Cane River catchment which discharges into the Ashburton River catchment.  Ashburton River: Approximately 20.5 km west of the Premises (down-gradient)  Cane River: Approximately 22 km north-east of the Premises (up-gradient)

<p>Surface Water Resource Proclaimed Area</p>	<p>The Premises is situated within the Pilbara Surface Water Area which is proclaimed area under the RIWI Act. The Premises is specifically located within the Ashburton River surface water resource proclaimed portion. Surface water areas are proclaimed for the purposes of regulating the taking of water from watercourses and wetlands and where there is a need for systematic management of the use of water.</p>
<p>Surface water bodies</p>	<p>A series of non-perennial lakes are situated to the west (down-gradient), south-west (up-gradient) and north-east (up-gradient) of the Premises. The closest of these is located approximately 2.3 km west of the Premises.</p> <p>Beyond these is a series of Saline Coastal Flats which extend towards the Indian Ocean.</p>

## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the Works Approval 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 Works Approval Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the Works Approval Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The Revised Works Approval W6225/2019/1 that accompanies this Amendment Report authorises construction only. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required to authorise emissions associated with the operation of the Premises. A risk assessment for the operational phase has been included in this Amendment Report, however licence conditions will not be finalised until the department assesses the licence application.

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

**Table 4. Risk assessment of potential emissions and discharges from the Premises during construction and operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
<b>Construction</b>								
Excavation and/or reworking of onsite soils for hardstand base	Dust	Air/windborne pathway causing impacts to health and amenity	Residences 20km south west and 40km east north east of the premises	Sited with large buffers to sensitive receptors	C = Slight L = Rare <b>Low Risk</b>	Y	N/A	N/A
<b>Operation</b>								
Acceptance, processing and storage of C&D waste Acceptance, processing and storage of greenwaste Acceptance and storage of scrap metal	Leachate	Contamination of waters or deterioration of local/regional surface water systems through overland surface flows	Surface water: series of non-perennial lakes are situated to the west, south-west and north-east of the Premises commencing ~ 2.3 km west from Premises. Surface water: minor watercourse (non perennial) located ~10.6 km west of Premises. Surface water: minor watercourse (non perennial) located ~15.5 km north of Premises. Surface water: series of Saline Coastal Flats located ~14 km north and northwest from the Premises. Surface water: Ashburton River ~20.5 km west of the Premises.	Pre-acceptance control over nature and type of waste received for storage and processing on the hardstand Sited with large buffers to sensitive surface waters Sited in semi-arid climate featuring low rainfall and high evaporation rates Permeability range between $1.6 \times 10^{-7}$ m/s to $4.9 \times 10^{-9}$ m/s Collection and evaporation of leachate and stormwater through graded pad and drainage to treatment pond	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1, 2, 3, 4 and 5 relating to Schedule 3, Table row items 20, 21 and 22.	The Delegated Officer has considered the proposal to increase the permeability specification of the hardstand areas for greenwaste, C&D waste and scrap metal area, in conjunction with the proposed operational controls, and does not consider that it will significantly increase the risk of leachate seepage to receptors. The Delegated Officer considers that a minimum hardstand permeability of $1 \times 10^{-7}$ is achievable utilising onsite materials, while sufficiently limiting risk of leachate seepage to groundwater.  Proposed Applicant controls for hardstand thickness (of 200mm) and slope (1:200) have also been added to the Works Approval to formalise the proposed construction requirements. Both hardstand thickness and slope are considered important for achieving the required permeability and preventing pooling of liquid. An operational requirement for maintenance of these hardstands is likely to be considered during the assessment for licence for the

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Risk Event					Risk rating <sup>1</sup>	Works Approval Holder's controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls	C = consequence L = likelihood			
		Overland flow and movement through groundwater impacting conservation values of the CRCP	Terrestrial environment within the CRCP proposed extension area (150 -1,500 m from Premises) including native flora and groundwater dependant vegetation	Hardstand graded to 1:200.				premises.
		Degradation to the beneficial use of groundwater and health impacts to groundwater users through subsoil seepage	Beneficial users of groundwater (including future users)		C = Minor L = Unlikely <b>Medium Risk</b>	Y		

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

Note 2: Proposed Works Approval Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

## 4. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Works Approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

### 4.1 Summary of amendments

Table 5 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Works Approval as part of the amendment process.

**Table 5: Summary of works approval amendments**

Condition no.	Proposed amendments
Schedule 3, Row 20 Greenwaste	Amended hardstand permeability requirement Inclusion of a minimum thickness and slope requirement for hardstand, as proposed by the Applicant
Schedule 3, Row 21 C&D	Amended hardstand permeability requirement Inclusion of a minimum thickness and slope requirement for hardstand, as proposed by the Applicant
Schedule 3, Row 22 Scrap metal	Amended hardstand permeability requirement Inclusion of a minimum thickness and slope requirement for hardstand, as proposed by the Applicant

## References

1. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
2. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
3. DER 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
4. Pilbara Regional Waste Management Facility – Works Approval: *Request to Vary Construction Requirements*, Talis Consultants (Talis) on behalf of the Shire of Ashburton, 23 September 2020.
5. Pilbara Regional Waste Management Facility – *Leachate Management Plan*, Talis Consultants (Talis) on behalf of the Shire of Ashburton, July 2018.

## Appendix 1: Summary of Works Approval Holder's comments on risk assessment and draft conditions

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Condition	Summary of Works Approval Holder's comment	Department's response
Works Approval Holder was provided with draft amendment on 16 December 2020	On 03 February 2021, the Works Approval Holder advised they had no comments on the draft.	N/A

## Appendix 2: Application validation summary

Works approval	<input checked="" type="checkbox"/>									
Licence	<input type="checkbox"/>	Relevant works approval number:		None	<input type="checkbox"/>					
		Has the works approval been complied with?			Yes	<input type="checkbox"/>	No	<input type="checkbox"/>		
		Has time limited operations under the works approval demonstrated acceptable operations?			Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
		Environmental Compliance Report submitted?			Yes	<input type="checkbox"/>	No	<input type="checkbox"/>		
		Date Report received:								
Renewal	<input type="checkbox"/>	Current licence number:								
Amendment to works approval	<input checked="" type="checkbox"/>	Current works approval number:	W6225/2019/1							
Amendment to licence	<input type="checkbox"/>	Current licence number:								
		Relevant works approval number:		N/A	<input type="checkbox"/>					
Registration	<input type="checkbox"/>	Current works approval number:		None	<input type="checkbox"/>					
Date application received		23/09/2020								
<b>Applicant and Premises details</b>										
Applicant name/s (full legal name/s)		Shire of Ashburton								
Premises name		Pilbara Regional Waste Management Facility								
Premises location		Lot 198 Pannawonica Drive PANNAWONICA WA 6716								
Local Government Authority		Shire of Ashburton								
<b>Application documents</b>										
HPCM file reference number:		DWERVT1867~27								
Key application documents (additional to application form):		Pilbara Regional Waste Management Facility – Works Approval: Request to Vary Construction Requirements								
<b>Scope of application/assessment</b>										
Summary of proposed activities or changes to existing operations.		<p><i>Works approval amendment</i></p> <p>Construction of hard stand for the mulching and storage of greenwaste, storage of scrap metal and storage of construction and demolition (C&amp;D) waste.</p> <p>The amendment relates to the correction of a typographical area requiring the permeability of the hardstand to be '<i>no less than <math>1 \times 10^{-9}</math></i>'. This should read '<i>no greater than <math>1 \times 10^{-9}</math></i>'. The Applicant is also seeking to have this permeability requirement increased to allow placement hard stand material of permeability <math>1.6 \times 10^{-7}</math> or less.</p>								

**Category number/s (activities that cause the premises to become prescribed premises)**

**Table 1: Prescribed premises categories**

Prescribed premises category and description	Assessed production or design capacity
Category 13 - crushing of building material Category 57 - used tyre storage (general)	There is no proposed change to production or design capacity associated with the application.
Category 62 - solid waste depot	
Category 63 - class I inert landfill site	
Category 65 - class IV secure landfill site	
Category 85 - sewage facility	

**Legislative context and other approvals**

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Referral decision No: Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input checked="" type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Approval: Expiry date: If N/A explain why?
Has the applicant applied for, or have an existing EP Act clearing permit in	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CPS No: CPS 8395/1

relation to this proposal?		
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Application reference No: CAW202784 (1) Licence/permit No:GWL202785
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	-
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	-
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004</i> , <i>Environmental Protection (Controlled Waste) Regulations 2004</i> , <i>State Agreement Act xxxx</i> )	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Prior to the acceptance of any controlled waste at the Premises, the Applicant is required to request through DWER that the Premises is listed as a controlled waste disposal facility, via Form 14
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	-
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	-
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	-