



Application for Works Approval Amendment

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

Works Approval Number	W6559/2021/1
Works Approval Holder	Shire of East Pilbara
File Number	DER2021/000260
Premises	Newman Refuse Site Legal description - Lot 129 on Deposited Plan 218264
Date of Report	20 April 2023
Decision	Revised works approval granted

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A/MANAGER, WASTE INDUSTRIES

Officer delegated under section 20 of the Environmental Protection Act 1986 **D**

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1. Decision summary

Works Approval W6559/2021/1 is held by the Shire of East Pilbara (Works Approval Holder) for the Newman Refuse Site (the Premises), located on Crown Reserve 44274, Newman.

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 W6559/2021/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

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

2.2 Application summary

On 22 February 2023, the Works Approval Holder submitted an application to the department to amend Works Approval W6559/2021/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Treatment pond configuration to be reduced from eight (8) ponds to six (6) due to buried waste being identified in the planned footprint of ponds A3 and A4. The two remaining ponds were enlarged to compensate for the reduction in number of ponds.
- Due to modified pond dimensions total liquid waste facility capacity will reduce from 112,000 tonnes/year to 105,000 tonnes/year.

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

Table 1: Proposed design capacity changes

Category	Current design capacity	Proposed design capacity	Description of proposed amendment
61	112 000 tonnes per annual period	105 000 tonnes per annual period	Treatment pond configuration to be reduced from eight (8) ponds to six (6) due to buried waste being identified in the planned footprint of ponds A3 and A4)

3. Background

Upon commencement of construction of the liquid waste ponds, buried waste was observed in the planned footprint of facultative ponds A3 and A4. To prevent health and safety risks and to prevent the relocation of the waste, ponds A3 and A4 are proposed to be removed from the works approval, and the dimensions of the two remaining facultative ponds (B3 and B4) are proposed to be amended. The proposed dimensions of the ponds are listed in Table 2 below. The new dimensions remain consistent with the requirements to optimise treatment of wastewater as defined in Mara (2007) and von Sperling (2003). The initial proposal was to have two discrete pond trains. The changes in works will see pond A2 discharging into pond

B3. Influent and treatment quality limits, the water balance outcomes and the wastewater disposal areas remain unchanged from those originally assessed within works approval W6559/2021/1.

Table 2: Pond specification changes

		TOB Length (m)	TOB Breadth (m)	Water Depth H (m)	Mid-depth Area (m ²)	Pond Volume (m ³)	Embankment grade
Pond A1	Anaerobic pond	38.0	21.5	4.0	338	1352	1: 2
Pond A2	Aerated facultative	50.0	30.0	2.80	861	2411	1: 2.5
Pond A3	Facultative - DELETED	35.0	20.0	1.80	329	592	1: 3
Pond A4	Facultative - DELETED	35.0	30.0	1.80	600	1080	1: 3
Pond B1	Anaerobic pond	32.0	25.0	4	345	1380	1: 2
Pond B2	Aerated facultative	55.0	25.0	2.8	736	2061	1: 2.5
Pond B3	Facultative - EXTENDED	35.0	20.0	1.8	329	592	1: 3
		45.0	25.0	1.6	669	1070	
Pond B4	Facultative - EXTENDED	35.0	30.0	1.8	600	1080	1: 3
		45.0		1.65	848	1400	

TOB = top of bank

4. 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.

The changes to the pond configuration and the reduction of the overall pond capacity from 112,000 tonnes/year to 105,000 tonnes/year does not alter the risk assessment undertaken for works approval W6559/2021/1 granted on 3 February 2023 which can be found on the department's website.

5. Consultation

Table 3 provides a summary of the consultation undertaken by the department.

Table 3: Consultation

Consultation method	Comments received	Department response
Works Approval Holder was provided with a draft amendment on 19 April 2023	On 19 April 2023 the Work Approval Holder requested to waive the remainder of the comment period and grant the work approval with no further changes.	N/A

6. 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.

6.1 Summary of amendments

Table 4 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 4: Summary of works approval amendments

Condition no.	Proposed amendments
Condition 1 Table 1	Changes to infrastructure requirements due to the removal of ponds A3 and A4 and an increase in the capacity of ponds B3 and B4.
Condition 9 Table 2	Changes to throughput from 112,000 tonnes per annual period to 105,000 tonnes per annual period due to infrastructure changes.
Condition 14 Table 5	Reference to pond A4 removed
Schedule 1 Site Plan	Updated site plan following the removal of ponds A3 and A4.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Mara, D. 2003, *Domestic wastewater treatment in developing countries*.
5. Von Sperling, M. 2007, *Waste stabilisation ponds*.

Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY						
Application type						
Works approval	<input type="checkbox"/>					
Licence	<input type="checkbox"/>	Relevant works approval number:		None	<input type="checkbox"/>	
		Has the works approval been complied with?			Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?			Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?			Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:				
Renewal	<input type="checkbox"/>	Current licence number:				
Amendment to works approval	<input checked="" type="checkbox"/>	Current works approval number:	W6559/2021/1			
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		22 February 2023				
Applicant and Premises details						
Applicant name/s (full legal name/s)		Shire of East Pilbara				
Premises name		Windell Refuse Site				
Premises location		Lot 129 on Plan 218264 Crown Reserve 44274				
Local Government Authority		Shire of East Pilbara				
Application documents						
HPCM file reference number:		DER2021/000260~1				
Key application documents (additional to application form):		Attachment 3B- Proposed Activities Attachment 2- Site Plan Attachment 9 - Amendment Fee calculation				

Scope of application/assessment		
Summary of proposed activities or changes to existing operations.	Construction works reduced from eight (8) ponds to six (6) due to buried waste in the planned footprint of ponds A3 and A4. The final two ponds were enlarged to compensate for the reduction in number of ponds. Due to modified ponds' dimensions total liquid waste facility capacity will reduce from 112,000 tonnes/year to 105,000 tonnes/year.	
Category number/s (activities that cause the premises to become prescribed premises)		
Table 1: Prescribed premises categories		
Prescribed premises category and description	production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 61: Liquid waste facility – premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated.	112,000 tonnes per annual period	Reduction of capacity from 112,000 tonnes to 105,000 tonnes per annum
Legislative context and other approvals		
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: N/A
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Public authority that has care, control, or management of the land
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	N/A
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.

<p>Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>No clearing is proposed.</p>
<p>Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Licence / permit not required.</p>
<p>Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Name: RIWI- Pilbara Groundwater Area and Pilbara Surface water Area Type: Proclaimed Groundwater Area and Proclaimed Surface water Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: North-West</p>
<p>Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Name: Newman Water Reserve Priority: P1 Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Note: According to the Harding Dam Water Source Protection Plan (West Pilbara Water Supply Scheme) Priority 1 PDWSA and Priority 3 PDWSA incompatible and restricted by land use activities of wastewater treatment plant respectively. North-eastern and North-western corners of premises is located over P1 PDWSA, and P3 PDWSA closest to the north of the premises. However, ponds are located to the western side which is not above PDWSA.</p>
<p>Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</p>

Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
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"/>	N/A