



Application for Works Approval Amendment

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

Works Approval Number	W6175/2018/1
Works Approval Holder	TMC Witchcliffe Pty Ltd
ACN	632 933 263
File Number	DER2018/001493
Premises	Witchcliffe Eco Village WWTF 10437 Bussell Highway WITCHCLIFFE WA 6286 Part of Lot 2807 on Deposited Plan 203076 Certificate of Title Volume 1482 Folio 919 As defined by the coordinates in Schedule 1 of the Revised Works Approval
Date of Report	25 February 2021
Proposed Decision	Revised works approval 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

Works Approval W6175/2018/1 is held by TMC Witchcliffe Pty Ltd (Works Approval Holder) for the Witchcliffe Eco Village Wastewater Treatment Facility (WWTF) (the Premises), located at 10437 Bussell Highway, Witchcliffe.

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 commissioning of the Premises. As a result of this assessment, Revised Works Approval W6175/2018/1 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. The Revised Works Approval 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

On 14 September 2020, the Works Approval Holder submitted an application to the department to amend Works Approval W6175/2018/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- To accept wastewater brought to site by tankers, from domestic sources; and
- To use the tankered wastewater to commission the WWTF prior to the operational input of wastewater from the Eco Village.

The original works approval application proposed that local winery activated sludge be used in commissioning along with stored wastewater sourced from the eco village.

Table 1 below outlines the proposed changes to the existing Works Approval. The delegated officer notes they are limited to the commissioning phase, with no changes proposed for the construction or ongoing operations at the Premises.

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
54	160 m ³ /day	160 m ³ /day	The Works Approval Holder proposes to accept tankered wastewater from external domestic sources to commission the WWTF.

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 construction and commissioning 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
Odour	Trucks Truck to WWTF connection point Spillage from trucks	Air/windborne	<ul style="list-style-type: none"> Fitted pipework connections for pumping Tankered wastewater filtrate handled as per existing works approval odour controls Tankered wastewater solid screenings to be contained in a Longapac bag system and stored in a 200L bin prior to landfill disposal. Truck receival connection pipes to be rinsed of septage prior to disconnecting pipework. Only pumped waste accepted - no residual solids to be accepted from trucks ("bogging out").
Septage spill	Transfer of wastewater from truck to WWTF	Seepage to soils and groundwater	<ul style="list-style-type: none"> Trucks on existing roads and hardstand. Drain in truck receival area to drain to existing sump
Noise	Extra truck movements	Air/windborne	<ul style="list-style-type: none"> Limited to three extra truck movements per day Limited to five days per week
Dust	Extra truck movements	Air/windborne	<ul style="list-style-type: none"> None given. Dust control in existing works approval (Condition 8).

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

Human receptors	Distance from prescribed activity
Rural dwellings (zoned priority agriculture)	Approximately 42m south-west of the Premises boundary (approximately 260m from the WWTF site).
Village centre	Approximately 490m north of Premises boundary (approximately 850m from WWTF site).
Future development	Directly adjacent of Premises boundary (approximately 900m north of WWTF site).
Parks and recreation reserve	Approximately 42m west of Premises boundary (approximately 250m north-west of WWTF site).
L6989/1997/12 – Davis Road Putrescible Landfill (Cat. 64)	Directly south of the Premises boundary.
Agricultural lots (zoned priority agriculture)	Approximately 45m west and 160m east of Premises.
Environmental receptors	Distance from prescribed activity
Chapman Brook	650m east of the Premises boundary (approximately 1,180m east of WWTF site).
Minor non-perennial watercourse	220m south of Premises boundary (approximately 270m south of the WWTF site).
Groundwater	<p>The site is in the Blackwood Groundwater Area and the Lower Blackwood River Surface Water Area.</p> <p>The works approval application states that groundwater observed across the site is perched groundwater in the superficial aquifer. The superficial aquifer is present within the sandy upper surface layer which extends up to 2m deep overlying low permeability sandy clay. Groundwater level monitoring has been carried out at the site with depths to maximum perched water levels ranging from 0m to 2.3m. The southern part of the site is well drained with sandy and gravelly soils, greater surface grades and depth to groundwater of 0.8m and greater. Surface water is present during the winter in the central and western parts of the site. The Geotechnical investigation encountered groundwater within seven of the test pits at depths of between 1.0m and 2.6m. This was generally inferred to be perched water on top of hard clayey layers or laterite</p>
Threatened fauna	465m north-west of Premises boundary.

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 W6175/2018/1 that accompanies this Amendment Report authorises construction and commissioning. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the works and commissioning authorised under the works approval to authorise emissions associated with the ongoing operation of the Premises i.e. wastewater treatment activities. As this amendment relates to changes to the commissioning phase only, a risk assessment for the operational phase has not been included in this Amendment Report. The delegated officer notes that licence conditions will not be finalised until the department assesses the licence application.

Table 4. Risk assessment of potential emissions and discharges from the Premises during commissioning

Risk Event					Risk rating ¹ C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
Additional truck movements and wastewater transfer	Noise	Noise transmitted through air to sensitive receptors resulting in potential amenity impacts.	Residential receptors - nearest residence located 42m southwest of Premises boundary, approximately 260m from the WWTF site.	Refer to Section 3.1.1	C = Minor L = Unlikely Medium Risk	Yes. Additional noise emissions are expected to cause minimal offsite impacts on a local scale given the distance to sensitive receptors and the limited duration of the works.	Works Approval – regulatory controls not required; the <i>Environmental Protection (Noise) Regulations 1997</i> apply.	N/A
Wastewater transfer, septage screening and input to WWTF	Odour: From the transfer of septage to the WWTF and subsequent treatment in the commissioning phase. Potential spills during transfer. Odour from trucks.	Via air/wind dispersion resulting in amenity impacts.	Residential receptors – nearest residence located 42m south-west of Premises boundary, approximately 260m from the WWTF site.	Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	Yes Given the distance to sensitive receptors odour emissions may result in amenity impacts where controls fail or are not sufficient.	Condition 1 (incorporating Schedule 2) Condition 14 Condition 16 Definitions	N/A
Tankered wastewater spill during transfer Leakage of filtrate from screenings bin	Septage spill	Surface flow to recreation area and/or minor watercourses degrading water quality. Direct discharge	Users of recreation reserve approximately 42m west of Premises boundary	Refer to Section 3.1.1	C = Minor L = Possible Medium Risk	No Given the distance to sensitive receptors emissions may result in amenity	Condition 1 (incorporating Schedule 2)	Added bunding of screenings bin as per Department of Health advice (see section 4)

Works Approval: W6175/2018/1

Risk Event					Risk rating ¹ C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
		to onsite soils causing contamination Seepage to groundwater causing degradation of groundwater quality	Minor seasonal watercourse 220m south of Premises boundary Soils and groundwater beneath the Premises.			or minor health impacts to human receptors and minimal offsite environmental impact where controls fail or are not sufficient		

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. **Additional regulatory controls** depicts additional regulatory controls imposed by department.

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Local Government Authority advised of proposal (17 December 2020)	<p>The Shire of Augusta Margaret River replied on 20 January 2021 and noted that:</p> <ul style="list-style-type: none"> The proposed additional trucks movements on David Road and Bussell Highway were acceptable. the Shire of Augusta Margaret River has requirements for any acceptance of screened solids waste from commissioning at the adjacent Davis Road Waste Management Facility. 	<p>The Delegated Officer notes that the Works Approval holder should communicate with the Shire of Augusta Margaret River with regard to arrangements for the possible disposal of solid waste from commissioning at the Davis Road Waste Management Facility.</p>
Department of Health advised of proposal (17 December 2020)	<p>The Department of Health replied on 19 December 2020 with no objection to the amendment subject to the following:</p> <ul style="list-style-type: none"> Tankered wastewater from domestic sources only. Maintain records of volumes-per day of tankered domestic water. 240 L mobile bin for screenings to be located on a bunded area to manage spills. 	<ul style="list-style-type: none"> Definitions and Condition 14 define the domestic wastewater source Condition 16 adds monitoring tankered volumes Condition 1 incorporating Schedule 2 adds bunding for the screenings disposal bin.
Works Approval/Licence Holder was provided with draft amendment on 27 January 2021.	Noted typographical error.	Noted and fixed.

5. 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.

5.1 Summary of amendments

Table 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Works Approval as part of the amendment process.

Table 6: Summary of works approval amendments

Condition no.	Amendments
Definitions	Inclusions of terms 'tankered wastewater' and 'septage' to define waste source
Schedule 2	Added detail of truck receival point, screen, screenings disposal system and diagrams
Condition 14	Added details of tankered wastewater acceptance
Condition 15	Renumbered from 14 due to added condition
Condition 16	Added emissions monitoring points for tankered wastewater acceptance. Renumbered due to added condition.
Condition 17 to 22	Renumbered, including cross-references, due to added condition
Table 4	Revised and replaced site boundary coordinates

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.

Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input checked="" type="checkbox"/>	Current works approval number:	W6175/2018/1	
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	14/9/2020			
Applicant and Premises details				
Applicant name/s (full legal name/s)	TMC Witchcliffe Pty Ltd			
Premises name	Witchcliffe Eco Village WWTF			
Premises location	10437 Bussel Highway WITCHCLIFFE WA 6286 Part of Lot 2807 on Deposited Plan 203076 Certificate of Title Volume 1482 Folio 919			
Local Government Authority	Shire of Augusta Margaret River			
Application documents				
HPCM file reference number:	DER2018/001493~9			
Key application documents (additional to application form):	Attachment to application form "Attachment 8 DEWR License Ammendment"			
Scope of application/assessment				

<p>Summary of proposed activities or changes to existing operations.</p>	<p>Proposed to allow for septage to be brought onsite in trucks for use in commissioning the WWTF to its full capacity for the eco village use.</p> <p>The application requests a Category 61 approval; however, the Delegated Officer considers that Category 54 approval is okay. The amendment is then to recognise the new waste acceptance and assess the risk of the new process truck movements, acceptance.</p> <p>The proposed tankering fits with the time frame of the original works approvals, i.e. application states they expect a maximum of 48 weeks to reach full capacity commissioning, the works approval conditions a maximum of one year for first stage of commissioning.</p>
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Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity
54 – sewage facility	Approved as per the existing works approval 160m3 per day	The septage will be used to commission the WWTF facility. No changes to the approved WWTF construction or ongoing operations stage proposed.

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: Managed under Part V <input 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"/>	N/A amendment, no details changed from works approval
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: WAPC SPN 2083 Shire of Augusta Margaret River approval – public water works.

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"/>	N/A
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"/>	N/A
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The site is located in the Blackwood Groundwater Area and the Lower Blackwood River Surface Water Area.
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A

<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>N/A</p>
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