



## Application for Works Approval Amendment

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

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<b>Works Approval Number</b>	W6317/2019/1
<b>Works Approval Holder</b>	Water Corporation
<b>File Number</b>	DER2019/000522
<b>Premises</b>	Waroona Wastewater Treatment Plant 22 Drake Road Waroona WA 6215  Legal description – Lot 22 on Deposited Plan 223194 Certificate of Title Volume 1536 Folio 692; and Lot 305 on Deposited Plan 223194 Certificate of Title Volume 410 Folio 90A  As defined by the Premises maps in Schedule 1 of the Revised Works Approval
<b>Date of Report</b>	13 April 2021
<b>Proposed Decision</b>	Revised licence granted

**A/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 W6317/2019/1 is held by Water Corporation (Works Approval Holder) for the Waroona Wastewater Treatment Plant (the Premises), located at Lot 22 and Lot 305 on Deposited Plan 223194, 22 Drake 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 construction and operation of the Premises. As a result of this assessment, Revised Works Approval W6317/2019/1 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 25 February 2021, the Works Approval Holder submitted an application to the department to amend Works Approval W6317/2019/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Removal of treated wastewater conveyance through an existing clay lined channel that discharges to the Drakesbrook Drain;
- Installation of a 315mm diameter underground HDPE pipeline for direct discharge from the secondary clarifier to a new discharge point into the Drakesbrook Drain (Discharge Point 2); and
- Installation of a flowmeter at the connection point between the underground HDPE pipeline and the secondary clarifier.

The amendment is being sought so that the Works Approval Holder can reduce operational costs associated with maintaining the existing clay-lined channel. Direct discharge via pipeline to the Drakesbrook Drain will also increase the accuracy of discharge volume calculations and remove potential breeding habitat for mosquito and midge larvae. Installation of the underground pipeline and flow meter will be undertaken at the same time as the works already approved through W6417/2019/1.

This amendment is limited only to changes to Category 54 activities from the Existing Works Approval. The amendment will not alter the previously assessed design and throughput capacity at the Premises.

## 2.3 Instrument history

The issue date and amendment history of Works Approval W6317/2019/1 is summarised in Table 1.

**Table 1: Instrument history for W6317/2019/1**

Instrument	Issued	Summary of approval
W6317/2019/1	19/11/2020	Works Approval granted
W6317/2019/1	17/02/2021	Department initiated administrative amendment to correct a clerical error
W6317/2019/1	13/04/2021	This amendment

## 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.

The Works Approval Holder has stated that construction of the upgrade already approved through W6417/2019/1 has not commenced and is not expected to start until the first half of 2022. As a result, a revision of the existing risk assessment relating to emissions and discharges during construction is not required and has not been undertaken.

### 3.1 Source-pathways and receptors

#### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises commissioning and operation which have been considered in this Amendment Report are detailed in Table 2 below.

Table 2 also details the 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
Treated wastewater	Discharge to Drakesbrook Drain	Overland flow and runoff causing impact to vegetation health	<p>The Works Approval Holder has not proposed additional controls to implement this amendment. The following controls proposed during the initial works approval application are considered relevant:</p> <ul style="list-style-type: none"> <li>Conveyance systems will be designed, constructed and tested to demonstrate complete containment of relevant process fluids.</li> <li>Wastewater inflows and outflows will be measured by magflow meters to monitor the integrity of the upgraded</li> </ul>
		Subsurface seepage causing contamination of soil and degradation of groundwater	

Emission	Sources	Potential pathways	Proposed controls
		quality	WWTP. <ul style="list-style-type: none"> <li>• Installation of groundwater bores on-site and four rounds (six months apart) of groundwater sampling over two (2) years will allow an assessment of groundwater condition at the WWTP.</li> <li>• Surface water monitoring in Drakesbrook Drain to confirm attenuation of contaminants upstream and downstream of the discharge point.</li> <li>• The Existing Licence requires water quality monitoring.</li> </ul>

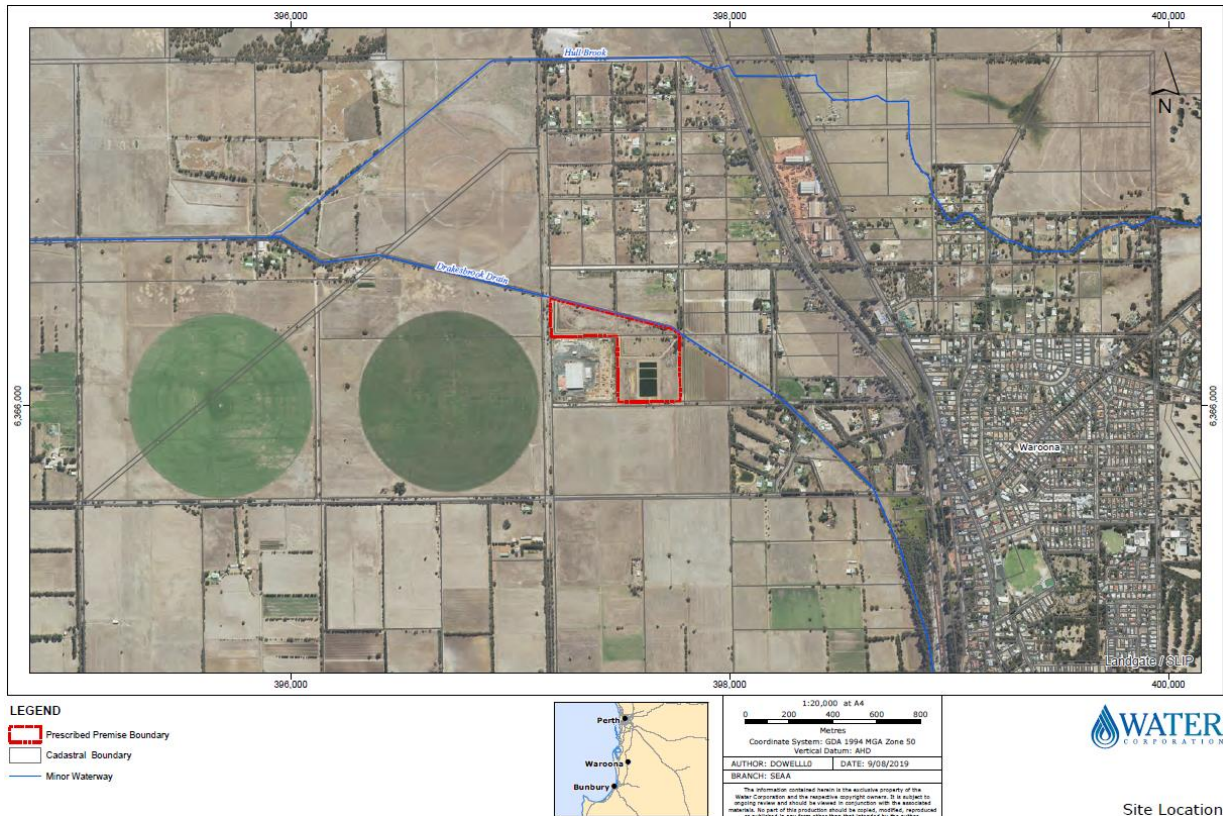
### 3.1.2 Receptors

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 as a result of this amendment (*Guidance Statement: Environmental Siting* (DER 2016)).

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

Human receptors	Distance from prescribed activity
No human receptors are considered directly relevant to the proposed amendment.	
Environmental receptors	Distance from prescribed activity
Underlying groundwater (non-potable purposes) - Regional information indicates that groundwater flow is in a westerly direction.	Groundwater across the Premises is estimated to be between 1 and 7 mbgl. A Geotechnical Investigation conducted in July 1986 intercepted groundwater at depths between 2.5 and 3.2 mbgl.
Major watercourses/waterbodies	The Drakesbrook Drain is located adjacent to the north of the Premises. The Premises discharges to this drain.
Peel Harvey Environmental Protection Policy area	The Premises is located within the policy area



**Figure 1: Siting of the Premises**

### 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 W6317/2019/1 that accompanies this Amendment Report authorises construction, commissioning and time-limited operations. 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 time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the Premises i.e. the treatment of sewage and discharge of wastewater under category 54. 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.

**Table 4. Risk assessment of potential emissions and discharges from the Premises during commissioning 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>Operation</b> (including commissioning and time-limited-operations)								
Discharge to Drakesbrook Drain	Treated wastewater containing contaminants e.g. nutrients, pathogens)	Overland flow and runoff causing impact to vegetation health  Subsurface seepage causing contamination of soil and degradation of groundwater quality	Surface water and riparian habitat  Beneficial uses of groundwater	Refer to Section 3.1.1 and the Decision Report for W6317/2019/1 issued on 19 November 2020 (DWER 2020)	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	The following conditions were amended: 2, 10, 11, 12, 20, 21, 22,	<b>N/A</b> Regulatory controls additional to those specified in the Decision Report for W6317/2019/1 (DWER 2020) have not been proposed

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. Consultation

Due to the minor nature of the proposed amendment and recent granting of the Works Approval (19 November 2020), the department has not undertaken stakeholder consultation with regards to this Application. Consultation had previously been conducted during the application for the initial works approval.

The Department of Health (DoH) had previously commented that the clay-lined channel should be adequately maintained to minimise mosquito breeding. As this infrastructure will no longer be relevant through the Application, the DoH will be informed of the decision to grant this amendment.

On 9 April 2021 the Works Approval Holder waived the comment period and requested that the amended works approval be issued.

## 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 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
Condition 2 Table 2: Row 2	A design and construction requirements was changed to: <i>An underground pipe and discharge flow meter from the phase-separation system to Discharge Point 1 will be constructed</i>
Condition 10 Table 4: Wastewater treatment system	Reference to the discharge point during commissioning was changed to: <i>Boundary Discharge Point 1</i>
Condition 11 Table 5: Emission	The emission and discharge points were changed to: <i>Boundary Discharge Point 1</i>
Condition 12 Table 6: Discharge point	The first discharge point for sampling was changed to: <i>Boundary Discharge Point 1 - the point where treated wastewater is discharged from the phase separation system to the discharge pipe</i> The second discharge point was removed as it is now redundant.
Condition 20 Table 8: Wastewater treatment system	Reference to the discharge point during time limited operations was changed to: <i>Boundary Discharge Point 1</i>
Condition 21 Table 9: Emission	The emission and discharge points were changed to: <i>Boundary Discharge Point 1</i>



Condition no.	Proposed amendments
Condition 22 Table 10: Discharge point	<p>The first discharge point for sampling was changed to:</p> <p><i>Boundary Discharge Point 1 - the point where treated wastewater is discharged from the phase separation system to the discharge pipe</i></p> <p>The second discharge point was removed as it is now redundant.</p>
Schedule 1: Figure 2	The discharge points figure was replaced with a revised figure showing the location of Boundary Discharge Point 1 only.
Schedule 1: Figure 3	The proposed site layout figure was replaced with a revised figure showing the proposed discharge pipeline.

## 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. Department of Water and Environmental Regulation (DWER) 2020. *Decision Report W6300/2019/1*. Issued 19 November 2020. accessed at: <https://www.der.wa.gov.au/images/documents/our-work/licences-and-works-approvals/Decisions/W6317-2019-1-D.pdf>

## Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)			
<b>Application type</b>			
Amendment to works approval	<input checked="" type="checkbox"/>	Current works approval number:	W6317/2019/1
Date application received	25 February 2021		
<b>Applicant and Premises details</b>			
Applicant name/s (full legal name/s)	Water Corporation		
Premises name	Waroona Wastewater Treatment Plant		
Premises location	Lot 22 and 305 on Plan 2231914, 22 Drake Road Waroona, 6215		
Local Government Authority	Shire of Waroona		
<b>Application documents</b>			
HPCM file reference number:	DWERDT419860		
Key application documents (additional to application form):	Supporting Information Document		
<b>Scope of application/assessment</b>			
Summary of proposed activities or changes to existing operations.	<p><u>Works approval amendment</u></p> <p>The application proposes the:</p> <ul style="list-style-type: none"> <li>• Removal of treated wastewater conveyance through an existing clay lined channel that discharges to the Drakesbrook Drain;</li> <li>• Installation of a 315mm diameter underground HDPE pipeline for direct discharge from the secondary clarifier to a new discharge point into the Drakesbrook Drain (Discharge Point 2); and</li> <li>• Installation of a flowmeter at the connection point between the underground HDPE pipeline and the secondary clarifier.</li> </ul> <p>The works approval will require the following amendment:</p> <ul style="list-style-type: none"> <li>• Condition 2 Table 2: Row 2 Wastewater treatment system - Removal of reference to the clay lined swale and replacement with the underground HDPE pipeline and discharge point 2</li> <li>• Condition 11 Table 5: Emission - Change of emission description to remove reference to the clay lined swale</li> <li>• Condition 12 Table 6: Discharge point – Change of discharge point description to remove reference to the clay lined swale</li> <li>• Condition 21 Table 9: Emission - Change of emission description to remove reference to the clay lined swale</li> <li>• Condition 22 Table 10: Discharge point - Change of discharge point description to remove reference to the clay lined swale</li> <li>• Schedule 1 – Replacement of Figures 2 and 3 with revised figures provided in the application</li> </ul>		

**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 (amendments only)
Category 54: sewage facility	880 m <sup>3</sup> /day	No change as a result of the amendment

**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"/>	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 type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: Expiry date: If N/A explain why? Exempt as public 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"/>	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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Name: Waroona Irrigation District Type: Proclaimed Surface Water Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> - Application does not modify discharge quality or volume and receiving drain is the same.

		Regional office: South West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: N/A Are the proposed activities/landuse compatible with the PDWSA (refer to <a href="#">WQPN 25</a> )? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
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 checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Environmental Protection (Controlled Waste) Regulations 2004</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Environmental Protection (Peel Inlet – Harvey Estuary) Policy 1992
Is the Premises subject to any EPP requirements?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Median load (mass) of total phosphorus flowing into the Estuary of less than 75 tonnes, with the median load (mass) of total phosphorus flowing into the Estuary from the Harvey River and associated drains being less than 38 tonnes.  Water qualities in streams in winter are to meet mean concentrations of 0.1 mg/L total phosphorus at current mean flows.
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"/>	Classification: N/A Date of classification: N/A