



Application for Licence

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

Licence Number	L5400/1992/13
Applicant	Water Corporation
ABN	28 003 434 917
Application number	APP-0029046
File number	INS-0001201
Premises	Waroona Wastewater Treatment Plant 22 Drake Road WAROONA WA 6215 Legal description - Lot 22 and Lot 305 on Plan 223194 As defined by Schedule 1 attached to the issued licence
Date of report	31 October 2025
Decision	Licence granted

Table of Contents

1. Decision summary	1
2. Scope of assessment	1
2.1 Regulatory framework	1
2.2 Application summary and overview of premises	1
2.3 Targets for Treated Wastewater Quality	2
2.4 Annual reporting	2
3. Risk assessment.....	3
3.1 Source-pathways and receptors	4
3.1.1 Emissions and controls	4
3.1.2 Receptors.....	5
3.2 Risk ratings.....	8
4. Consultation	10
5. Conclusion	11
5.1 Summary of amendments.....	11
References	12
Appendix 1: Summary of applicant's comments on risk assessment and draft conditions	13
 Table 1: Waroona WWTP Treated Water Discharge Design Requirements	2
Table 2: Proposed applicant controls	4
Table 3: Sensitive human and environmental receptors and distance from prescribed activity ..	5
Table 4: Risk assessment of potential emissions and discharges from the premises during operation.....	9
Table 5: Consultation	10
Table 6: Summary of licence amendments	11
 Figure 1: Distance to sensitive receptors.....	7

1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the operation of the premises. As a result of this assessment, licence L5400/1992/13 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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 and overview of premises

On 9 May 2025, the Water Corporation (the applicant) submitted an application for renewal of Licence L5400/1992/12 for the Waroona Wastewater Treatment Plant (WWTP), located at 22 Drake Road, Waroona (the premises) to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The Waroona WWTP, established in 1992, is located on Drake Road, Waroona. It is bordered by a commercial/industrial premises to the west and small farm lots on the remaining sides, with the nearest residence approximately 220 metres north of the prescribed premises boundary.

Situated at the base of the Darling Scarp and the edge of the Swan Coastal Plain, the site is underlain by surficial sediments and shallow aquifers, with groundwater approximately 1 metre below the surface. It lies within the catchment of the RAMSAR-listed Peel-Yalgrope wetland system and is located within the Environment Protection (Peel Inlet-Harvey Estuary) Policy 1992 area. This policy, along with the *Water Quality Improvement Plan for the Rivers and Estuary of the Peel-Harvey System – Phosphorus Management* (WQIP), sets environmental quality objectives aimed at reducing nutrient enrichment in the estuary. These include a target for median total phosphorus (TP) loads entering the estuary to remain below 75 tonnes per annum, with contributions from the Harvey River and associated drains, including Drakesbrook, to remain below 38 tonnes per annum. These targets are supported by catchment-wide strategies involving improved agricultural and urban land-use practices and effluent management.

The premises includes a planted treelot of *Eucalyptus globulus* (Tasmanian blue gums) and three treatment ponds. Alum dosing is used to reduce phosphorus concentrations in the final effluent. Previously, treated wastewater was discharged to the treelot. However, this method demonstrated low nutrient removal efficiency, achieving less than 10% reduction. Treated wastewater is now directed via a flume into a clay-lined swale (constructed under Works Approval W5433/2013/1), which leads to an agricultural drain. The swale is currently being monitored for its effectiveness in further reducing phosphorus concentrations. The treated wastewater is only discharged to the woodlot as a contingency measure, or when the clay-lined swale is offline for repair or maintenance.

Wastewater is pumped to the WWTP from an effluent pressure main, where is treated through three treatment ponds in series before discharge to the on-site clay-lined swale. All flows within the WWTP are gravity fed following entry into the primary treatment pond. The three treatment ponds are configured as follows:

- A primary treatment pond with a volume of 6,813 m³
- A secondary treatment pond with a volume of 5,196 m³
- A tertiary treatment pond with a volume of 4,480 m³

The premises has experienced ongoing exceedances of its licensed design capacity, as detailed in Section 2.4 of this report. Works Approval W6317/2019/1 was issued on 19 November 2020 to authorise the upgrade of the Waroona WWTP to an advanced secondary treatment system (Oxidation Ditch). This upgrade is intended to accommodate long-term inflow volumes and significantly improve effluent quality, particularly through the reduction of nutrient loads discharged into Drakesbrook Drain. Construction of the WWTP is expected to commence in 2027 and be completed by mid-2028. Forecasting undertaken by Water Corporation suggests the upgraded WWTP will meet demand through to 2050.

To support continued operation ahead of the upgrade, the department is considering an interim increase to the authorised design capacity of the Waroona WWTP. This consideration is based on sustained inflows exceeding the current licensed capacity, as evidenced in recent Annual Environmental Reports, and the absence of overtopping or significant environmental impacts.

Water Corporation has advised that the Waroona WWTP has a hydraulic capacity of 660 kL/day, based on a minimum retention time of 25 days. Under current plant dimensions and flow conditions, the system achieves a hydraulic retention time of approximately 55 days. However, rainfall has not been accounted for in these calculations which may affect actual retention times.

The risk assessment undertaken for this licence renewal in Section 3 reflects the increased inflow volumes and associated operational controls.

The premises relates to the category and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in licence L5400/1992/13. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in licence L5400/1992/13.

2.3 Targets for Treated Wastewater Quality

The WWTP aims to achieve the treated wastewater quality targets outlined in Table 1.

Table 1: Waroona WWTP Treated Water Discharge Design Requirements

Treated Wastewater Parameter	Target
Biological Oxygen Demand (BOD)	<50 mg/L
Suspended Solids (SS)	<200 mg/L
Total Nitrogen	<50 mg/L
Total Phosphorus	<5 mg/L
<i>E.coli</i>	1000-10000 (cfu/100 mL)

2.4 Annual reporting

The 2024-2025 Annual Environmental Report (AER) identified that the premises exceeded its maximum design capacity of 240 m³ per day during the reporting period, with an annual average daily inflow of 300 m³ per day. This issue has been ongoing since it was first reported in the 2014-2015 Annual Audit Compliance Report (AACR). However, it is noted that no overtopping of the wastewater treatment ponds has occurred as a result of these exceedances.

Water Corporation reported that the non-compliance is not expected to have had a significant environmental impact, based on the following considerations:

- The WWTP generally operated within expected design parameters during the 2024-2025 reporting period. However, it is noted that monitoring did record seasonal peaks at

the upper level of expected design parameters for SS (130 mg/L average and 200 mg/L maximum recorded level), Total Nitrogen (43 mg/L average and 66 mg/L maximum recorded level), and BOD (32.5 mg/L average and 50 mg/L maximum recorded level). These concentrations were further reduced through the clay-lined swale, with Discharge Point 2 monitoring indicating average levels of 37.3 mg/L for Total Nitrogen, 24.6 mg/L for BOD, and 119 mg/L for SS.

- The treated wastewater is discharged into Drakesbrook Drain, which flows into the Waroona Main Drain approximately 5.8 km downstream. From there, it enters the Harvey River (approximately 15 km from the discharge point) before eventually reaching the Peel-Harvey Estuary (around 24 km from the discharge point). This long flow path provides additional opportunity for dilution and attenuation.
- Licence Condition 7, Table 2, specifies a total phosphorus (TP) limit of 5 mg/L in surface water emissions, to be met in at least 3 out of every 4 consecutive spot samples. TP concentrations at Boundary Discharge Point 2 remained compliant throughout the reporting period.

The AER notes increasing trends in SS, BOD, *E.coli*, and total nitrogen (TN) at the pond discharge point, with peak values at or exceeding upper design thresholds.

During 2023–2024, Water Corporation undertook desludging of Treatment Pond 2 and maintenance of the clay-lined swale. These actions resulted in improved nutrient removal performance, with average reductions of 20.7% for TP and 13.7% for TN during the 2024–2025 reporting period. This represents an improvement from the previous year, where reductions were 7.7% for TP and 8.6% for TN. The improvement has been attributed to maintenance activities undertaken since January 2024.

To support ongoing treatment performance ahead of the planned WWTP upgrade, Water Corporation has implemented the following operational controls and process improvements:

- Increased on-site maintenance, including:
 - Manual removal of rags to prevent blockages
 - Weed control
 - Swale maintenance
 - Removal of floating scum and sludge from ponds using vacuum tankers
- Desludging of Pond 2 (2024), Pond 3 (2021–2022), and the swale (2022–2023)
- Alum dosing to support compliance with TP limits.

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 *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.

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 decision report are detailed in Table 2 below. Table 2 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 2: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Operation			
Discharge of treated wastewater (containing nutrients, pathogens, and other contaminants) to the Drakesbrook Drain from the clay lined swale and/or woodlot	Operation of WWTP with increased design capacity to receive and treat additional inflows	Surface water run-off from the swale to the Drakebrook Drain	- Existing licence conditions - Alum dosing - Increased on-site maintenance, including: ➤ Manual removal of rags to prevent blockages ➤ Weed control ➤ Swale maintenance ➤ Removal of floating scum and sludge from ponds using vacuum tankers
Uncontrolled discharge of untreated or poorly treated wastewater (containing nutrients, pathogens, and other contaminants) to land from overtopping of ponds	Operation of WWTP with increased design capacity to receive and treat additional inflows	Overland flow with potential infiltration into soil and shallow groundwater, or runoff to nearby surface water bodies.	
Discharge of treated wastewater (containing nutrients, pathogens and other contaminants) to the woodlot, for nutrient-stripping/absorbtion by trees, prior to residual runoff into the Drakesbrook Drain.	Operation of WWTP with increased design capacity to receive and treat additional inflows	Surface water run-off and/or subsurface flow from the woodlot to the Drakesbrook Drain	
Odour	Operation of WWTP with increased design capacity to receive and treat additional inflows	Air / windborne pathway	

3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant's employees, visitors, and contractors 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 and Figure 1 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 (*Guideline: Environmental Siting* (DWER 2020)).

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

Human receptors	Distance from prescribed activity
Residential premises	Closest is appx. 220 m north (R1) of prescribed premises boundary, appx. 400 m north-east (R2), appx. 720 m south (R3), appx. 600 m south-west (R4), and appx. 470 m south-east (R5)
Commercial/industrial premises	Adjacent to prescribed premises boundary to the west and south-east
Environmental receptors	Distance from prescribed activity
The Yalgorup lake system RAMSAR site	The premises and potential treated wastewater discharge areas are in the upstream catchment for the Peel-Yalgorup System and appx. 20 km east of the lake system.
Geomorphic wetlands	The premises is located within a Multiple use Palusplain
Peel Harvey Environmental Protection Policy	The premises is located within the Peel-Harvey Environmental Protection Policy area.
Threatened Ecological Communities (TECs)	Appx. 2 km north of prescribed premises boundary, 1.2 km west and 2.6 km east.
Drakesbrook Drain	Runs along north-west edge of prescribed premises boundary and flows in a north-west to westerly direction. The drains natural course has been modified through engineering works to support agricultural drainage in the area. The drain connects with the Waroona Main Drain approximately 5 km west of the site, which then diverts flow into the Harvey River. Water from the Harvey River ultimately discharges into the Peel-Harvey Estuary, located over 25 km downstream of the premises.
RIWI Act Surface Water Area Waroona Irrigation District Surface Water Area	Within the prescribed premises boundary

RIWI Act Groundwater Area Murray Groundwater Area	Within the prescribed premises boundary The nearest licensed groundwater extraction bores are 1.6 km east of prescribed premises boundary, 2.1 km south-east, and 3.3 km to the north. The nearest groundwater bore for irrigation/domestic use is appx. 900 m west/south-west of the premises. Depth to groundwater is generally shallow (<1 m); across the site it ranges from 1 to 7 m bgl. A 1986 investigation found groundwater at 2.5-3.2 m depth in the treatment area.
Threatened Fauna	Within 500 m of prescribed premises boundary
Other relevant ecosystem values	Distance from prescribed activity
Aboriginal Heritage Site Drake Road Dampland (ID: 23546)	Appx. 900 m east of the premises.



Figure 1: Distance to sensitive receptors (prescribed premises shown in yellow)

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source 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 applicant 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 applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

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

Licence L5400/1992/13 that accompanies this decision report authorises emissions associated with the operation of the premises.

The conditions in the issued licence, as outlined in Table 4 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 operation

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls/Delegated Officer comments
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Operation								
Operation of WWTP with increased design capacity (660 m³/day) to receive and treat additional inflows	Discharge of treated wastewater (containing nutrients, pathogens, and other contaminants) to the Drakesbrook Drain from the clay lined swale and/or woodlot	Pathway: Surface water run-off from the swale to the Drakebrook Drain Impact: Potential contamination of soil, surface water and shallow groundwater in the catchment due to nutrients, pathogens and contaminants in the treated wastewater. Ecosystem disturbance may occur in downstream environments, including impacts to aquatic flora and fauna.	Drakesbrook Drain Peel Yalgorup System Beneficial uses of groundwater Groundwater dependent ecosystems	Refer to Section 3.1	C = Moderate L = Possible Medium Risk	N	Condition 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17 <u>Conditions 1, 2 and 19</u>	The delegated officer considers that the retention time of wastewater in the treatment ponds may not be sufficient to ensure adequate treatment, including stabilisation of organic matter, settling of solids, and destruction of pathogens, under a daily inflow of 660 m³/day. This concern is supported by monitoring data indicating that the WWTP is operating near the upper limits of its wastewater quality targets. Rainfall has also not been accounted for in the hydraulic capacity calculations provided by Water Corporation. Therefore, an increase in authorised design capacity to 660 m³/day is not supported. The delegated officer supports an increase in authorised design capacity to 320 m³/day, averaged over the annual period. This allows for a retention time of 50 days, excluding rainfall events, and aligns with the recommended retention times of greater than 30 days outlined in <i>Water Quality Protection Note 39: Ponds for Stabilising Organic Matter</i>. Monitoring indicates that the, WWTP has operated at approximately 300 m³/day without causing significant environmental impact. Therefore, this modest increase is not expected to result in adverse environmental outcomes and still enables compliance with the recommended retention times, even when accounting for rainfall events (based on a peak observed inflow variation of 141 m³/day between inflow and outflow volumes recorded in the 2023-2024 Annual Environmental Report). Effective maintenance of the wastewater treatment ponds and associated infrastructure, including the swale, is essential in supporting the continued operation of the Waroona WWTP under increased inflow conditions. Due to this, the Delegated Officer considers it appropriate to formalise maintenance requirements through regulatory controls. Sub-condition 1(f) has been added to require desludging of the treatment ponds either when the sludge layer reaches one-third of the pond depth or at least once every five years, whichever occurs first. This aligns with best practice guidance outlined in <i>Water Quality Protection Note 39: Ponds for stabilising organic matter</i> and is intended to maintain effective treatment capacity and prevent deterioration in effluent quality.
	Uncontrolled discharge of untreated or poorly treated wastewater (containing nutrients, pathogens, and other contaminants) to land from overtopping of ponds	Pathway: Overland flow with potential infiltration into soil and shallow groundwater, or runoff to nearby surface water bodies. Impact: Potential contamination of soil, surface water and shallow groundwater in the catchment due to nutrients, pathogens and contaminants in the wastewater. Ecosystem disturbance may occur in downstream environments, including impacts to aquatic flora and fauna.	Drakesbrook Drain Peel Yalgorup System Beneficial uses of groundwater Groundwater dependent ecosystems	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	N	Condition 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17 <u>Conditions 1, 2 and 19</u>	Effective maintenance of the wastewater treatment ponds and associated infrastructure, including the swale, is essential in supporting the continued operation of the Waroona WWTP under increased inflow conditions. Due to this, the Delegated Officer considers it appropriate to formalise maintenance requirements through regulatory controls. Sub-condition 1(g) requires monthly inspection and maintenance of the clay-lined swale to ensure free drainage and prevent blockages, sediment accumulation, or debris that could impair flow or reduce treatment effectiveness.
	Discharge of treated wastewater (containing nutrients, pathogens and other contaminants) to the woodlot, for nutrient-stripping/absorbtion by trees, prior to residual runoff into the Drakesbrook Drain.	Pathway: Surface water run-off and/or subsurface flow from the woodlot to the Drakesbrook Drain Impact: Potential contamination of soil, surface water and shallow groundwater in the woodlot with nutrients, pathogens and other contaminants in the treated wastewater. Death or loss of condition of trees in the woodlot due to overloading with contaminants or water, which may lead to additional leaching off-site via the subsequent runoff point to the drain. Secondary impacts may occur such as ecosystem disturbance in downstream environments.	Drakesbrook Drain Peel Yalgorup System Beneficial uses of groundwater Groundwater dependent ecosystems	Refer to Section 3.1	C = Moderate L = Possible Medium Risk	N	Condition 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17 <u>Conditions 1, 2 and 19</u>	Sub-condition 1(g) requires monthly inspection and maintenance of the clay-lined swale to ensure free drainage and prevent blockages, sediment accumulation, or debris that could impair flow or reduce treatment effectiveness. Annual Environmental Reports submitted by Water Corporation have demonstrated that proactive maintenance, including desludging and swale upkeep, has a measurable impact on improving final effluent quality. These activities are therefore considered critical to the ongoing performance of the WWTP and warrant inclusion as enforceable licence conditions. To support transparency and compliance monitoring, additional reporting conditions have also been included in the licence. These require the licence holder to document and report on maintenance activities undertaken, including desludging events and swale inspections. This will enable the department to verify that maintenance is occurring as required and assess its effectiveness in supporting treatment performance.
	Odour	Air / windborne pathway causing impacts to health and amenity	Residential premises appx. 220 m north, 450 m east, 720 m south and 600 m west of prescribed premises boundary Adjacent commercial/industrial premises	Refer to Section 3.1	C = Moderate L = Possible Medium Risk	N	Condition 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 15 and 18 <u>Conditions 1, 2 and 19</u>	A review of the department's Incident and Complaints Management System did not identify any odour-related complaints associated with the Waroona WWTP. While an increase in design capacity to 660 m³/day may increase odour emissions due to reduced retention times, an increase to 320 m³/day should still allow for adequate retention time in treatment ponds, which is expected to support biological processes that reduce odour generation. Given that the premises is already receiving average inflows of 300 m³/day, it is not anticipated that odour emissions will significantly increase with an increased authorised inflow of 320 m²/day as a result of this licence renewal.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

Licence: L5400/1992/13

4. Consultation

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

Table 5: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 12 June 2025	None received	N/A
Local Government Authority advised of proposal on 13 June 2025	The Shire of Waroona responded on 9 July 2025, raising the following concerns: - The Waroona WWTP has been operating over its licensed discharge volume for over a decade, as confirmed by Water Corporation's own audit reports. - Although a works approval was issued in 2020 for an upgrade, the project has been delayed from 2025 to 2028, pending budget approval. - Water Corporation has suspended support for new subdivision applications requiring sewer connection until the upgrade is complete. - This has created a bottleneck in housing development, directly impacting the town's growth and undermining State planning and housing objectives. - Current licensing arrangements focus on effluent quality but lack enforceable standards for sewerage volume and infrastructure adequacy, allowing long-term non-compliance without consequence. The Shire has the following recommendations: - Include enforceable licence conditions requiring infrastructure upgrades within a defined and binding timeframe. - Recognise the WWTP's strategic role in enabling housing development in Waroona and surrounding areas.	The delegated officer acknowledges the concerns raised by the Shire, particularly in relation to the ongoing capacity constraints and their impact on local development. As part of this licence renewal, the department has authorised an interim increase in the design capacity of the WWTP to 320 m³/day, averaged over the annual period. This reflects the sustained inflows already being received and assessed through recent Annual Environmental Reports. This decision is supported by evidence that the facility can continue to operate without overtopping or significant environmental impact under current and projected flow conditions. While DWER recognises the importance of wastewater infrastructure in enabling housing development, the department's regulatory role under the <i>Environmental Protection Act 1986</i> is limited to managing emissions and discharges to the environment. DWER does not have the authority to require infrastructure upgrades for the purpose of supporting urban growth or subdivision approvals. Water Corporation has advised that it is liaising with the land developer to ensure that staged development can proceed in parallel with delivery of the WWTP upgrade, which is currently scheduled for completion in 2028.

	Consider introducing sewerage capacity standards to ensure infrastructure keeps pace with growth and development.	
Department of Health (DOH) advised of proposal on 13 June 2025	DOH replied on 30 June 2025 advising that they had no objection to the renewal of the licence.	N/A
Applicant was provided with draft documents on 20 October 2025	Refer to Appendix 1	Refer to Appendix 1

5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that the application to renew licence L5400/1992/12 will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

The renewal supports continued operation of the Waroona WTP at a design capacity of 320 m³/day ahead of its planned upgrade to an advanced secondary treatment system. In recognition of sustained flows exceeding the current licensed capacity and the absence of significant environmental impacts, the department supports an interim increase to the authorised design capacity of the premises for a period of three years. This increase will be subject to ongoing monitoring and reporting to ensure environmental risks remain appropriately managed.

5.1 Summary of amendments

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
1-20	Renumbered 2- 21 with the addition of a new condition (Condition 1) Condition 1 was added to the licence to specify the quantity of sewage permitted to be received at the premises per day, to align with the authorised design capacity on the front page of the licence.
2 (previously 1)	Amended to add sub-conditions (f) and (g) with maintenance requirements for treatment ponds and the swale.
19 (previously 18)	Amended to include reporting requirements for swale inspections and treatment pond desludging activities. Referenced conditions updated as a result of condition renumbering
21	Referenced conditions updated as a result of condition renumbering
Schedule 1	Inclusion of Figure 2 showing infrastructure layout

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water 2009, *WQPN 39: Ponds for stabilising organic matter*, Perth, Western Australia/ Available at: <https://www.wa.gov.au/system/files/2022-04/WQPN-39-Ponds-for-stabilising-organic-matter.pdf> [Accessed 8 Oct. 2025].
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
Front Page	Water Corporation has an ABN not an ACN. The ABN on the front cover page should be 28 003 434 917. The prescribed premises category description on the front page has a capacity of 240 m³/day and does not match up with the authorised capacity of 320 m³/day in Condition 1.	These errors identified by Water Corporation on the licence have been corrected.
Condition 2(f)	Water Corporation requests the condition wording to be amended to: <i>"The ponds are to be desludged to maintain effective treatment capacity and prioritised as part of the statewide desludging program or at least once every 5 years for ponds 2 and 3."</i> Water Corporation manages a statewide desludging program where WWTPs are prioritised based on a number of factors including effective treatment. Waroona WWTP will be assessed and prioritised as part of this program which will take into account total phosphorus treatment limit of 5 mg/L in the Licence. Ponds 2 and 3 are to be desludged at least every 5 years due to the primary and secondary alum dosing points being at the inflow pipes to these ponds. The sludge accumulation rate is expected to be higher in ponds 2 and 3 due to the alum dosing in these ponds which is used to ensure the total phosphorus Licence limit is continuously met. As part of the treatment process, pond 1 does not include an alum dosing point. Consequently, the sludge accumulation rate is expected to be lower than ponds 2 and 3. Thus, pond 1 will be assessed and prioritised according to the statewide desludging program.	The Delegated Officer has amended the condition to remove the requirement for Pond 1 to be desludged at least once every five years. However, the condition retains a performance-based requirement that desludging must occur to ensure accumulated solids do not exceed one-third of the pond depth. Ponds 2 and 3 are required to be desludged at intervals not exceeding five years, reflecting their higher sludge accumulation rates due to alum dosing at the inflow points. This approach removes reliance on the Statewide Desludging Program, which is based on prioritisation and may not guarantee timely desludging. The revised condition ensures consistent desludging practices across all ponds and provides a clear, auditable standard for compliance.
Condition 2(g)	Water Corporation requests the condition wording to be amended to: <i>"The swale must be inspected quarterly and maintained to ensure free drainage, including removal of any blockages, sediment build-up, or debris that may obstruct flow or reduce capacity."</i> Based on long term operations of the Waroona WWTP, the swale has never overflowed or incurred in blockage that would reduce the hydraulic capacity. Therefore, Water Corporation considers that the risk overflowing is low and a quarterly inspection is appropriate to demonstrate that effective controls are in place.	The Delegated Officer has resolved to amend the condition as requested.

Condition	Summary of applicant's comment	Department's response
Condition 21, Table 9	Row 1 refers to the incorrect condition. Additionally, the heading says Condition OR table, which can be ambiguous. Water Corporation requests that the reference to Condition 7 in row 1 column 1 be changed to Condition 8 (Table 3), which refers to the limit for TP emissions to surface water. An update in the second row to Condition 9 (Table 4) is requested for clarity as well.	These errors identified by Water Corporation on the licence have been corrected.
Condition 13, Table 5	In Table 5: 'Monitoring of emissions to surface water' - Boundary discharge point 1 as shown in Figure 1" and 'Boundary discharge point 2 as shown in Figure 1'-, the units for Total Phosphorus, Total Suspended Solids, Total Dissolved solids, Biochemical oxygen demand, Total Nitrogen Oxidised nitrogen (nitrate + nitrate-nitrogen), Ammonium-nitrogen and Total aluminium are in mg/L and kg/day. While mg/L is commonly used monitoring unit, kg/day is a calculation based on data from monitoring, which makes it confusing. Water Corporation requests the removal of this unit and suggests adding it as a reporting condition.	The Delegated Officer has considered this request and amended the licence accordingly. The kg/day unit has been removed from Tables 5 and 6 and instead incorporated into Condition 19, Table 8 (rows 3, 4, and 5), as a reporting requirement. This ensures that calculated daily loads are still captured for regulatory oversight while maintaining clarity in the monitoring table.
Condition 14, Table 6	In Table 6: 'Monitoring of emissions to land' – 'Pond discharge point as shown in Figure 1' the units for Total Phosphorus, Total Suspended Solids, Total Dissolved solids, Biochemical oxygen demand, Total Nitrogen Oxidised nitrogen (nitrate + nitrate-nitrogen), Ammonium-nitrogen and Total aluminium are in mg/L and kg/day. While mg/L is commonly used monitoring unit, kg/day is a calculation based on data from monitoring, which makes it confusing. Water Corporation requests the removal of this unit and suggests adding it as a reporting condition.	
Condition 13, Table 5 Condition 14, Table 6	For consistency with other licences, Water Corporation requests an amendment to add "/day" to m ³ (under the Units column), change "Monthly and cumulative" to just "Monthly" (under the Averaging period column).	The Delegated Officer has made the requested amendments.
Definitions, Table 10	Water Corporation requests that ACN be changed to ABN.	The Delegated Officer has made the requested amendment.