



Application for Licence Amendment

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

Licence Number	L8004/2005/4
Licence Holder	Water Corporation
File Number	APP-0028460
Premises	<p>Kambalda Wastewater Treatment Plant</p> <p>Legal description Crown Reserve 38893; Crown Reserve 51526; and Crown Reserve 51525 KAMBALDA WA 6391</p> <p>As defined by the premises maps attached to the issued licence</p>
Date of Report	4 July 2025
Decision	Revised licence granted

Grace Heydon

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

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1. Decision summary

Licence L8004/2005/3 is held by Water Corporation (licence holder) for the Kambalda Wastewater Treatment Plant (the premises), located at Crown Reserve 38893; Crown Reserve 51526; and Crown Reserve 51525 KAMBALDA WA 6391.

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 operation of the Premises. As a result of this assessment, revised licence L8004/2005/4 has been granted.

The revised licence issued as a result of this amendment consolidates and supersedes the existing licence previously granted in relation to the premises. The revised licence 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 8 April 2025, the applicant submitted an application for a licence to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The application is to seek a licence renewal for their category 54 wastewater treatment plant (WWTP). The premises is approximately 1.2 km East of Kambalda. The premises currently operated as a WWTP with two aeration tanks, a chlorinator, eight sludge drying beds, one re-use storage dam, and two emergency storage dams, with treated wastewater transported via a pipeline conveyance to the BHP Nickel West operations for processing works. Chlorine dosing is carried out via a decanting tank. There are magnetic flow meters on both the inlet and outlet to the WWTP.

The premises also consists of Emergency storage ponds identified as Kambalda East and Kambalda West. Kambalda East comprises of five ponds while Kambalda West comprises of three ponds. Wastewater is directed to these ponds for storage during planned maintenance and emergency shutdown periods only. Wastewater is then tankered back to the WWTP for treatment when required.

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 L8004/2005/2. 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 L8004/2005/4.

Table 1 below outlines the proposed changes to the existing Licence.

Table 1: Proposed design changes

Category	Current design capacity	Proposed design capacity	Description of proposed amendment
54	1500 cubic metres per day	800 cubic metres per day	As part of the renewal application form it was indicated that the current capacity of the premises is 800 cubic metres per day with a throughput of 600 cubic metres per day.

2.3 Consolidation of Licence

As part of this amendment package the department has consolidated the licence by incorporating changes made under the below Amendment Notice:

- Amendment Notice 1 to add Kambalda East and West wastewater ponds into the premises boundary and correcting references to incorrect reserve number to reflect the actual location of the infrastructure.

The obligations of the Licence Holder have not changed in consolidating the licence. The department has not undertaken any additional risk assessment of the Premises related to previous Amendment Notices.

In consolidating the licence, the CEO has:

- updated the format and appearance of the Licence;
- deleted the redundant AACR form set out in schedule 1 of the previous licence and advise the Licensee to obtain the form from the department's website;
- revised licence condition's numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

The full consolidation of licence conditions as they relate to this revised licence are detailed in Section 5.1. Previously issued amendment notices will remain on the department's website for future reference and will act as a record of the department's decision making.

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 amendment report are detailed in Table 2 below.

Table 2 also details the proposed control measures the licence holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Licence holder controls

Emission	Sources	Potential pathways	Proposed controls
Odour	Storage and treatment of wastewater	Air/windborne pathway	Provisions of the existing licence
Discharge of treated wastewater to land	Overtopping of treated wastewater from ponds; Seepage of treated wastewater through pond or infrastructure failure; and Discharge via the re-use program at BHP location.	Direct discharge; Infiltration to groundwater; and Overland flow	Provisions of the existing licence. All ponds are in-situ clay lined Re-use program required DoH approval to operate.
Sewage or partially treated wastewater discharge	Overtopping of untreated wastewater from ponds, or infrastructure failure	Direct discharge	Provisions of the existing licence. Discharge to the Kambalda East and West ponds will only occur during extreme weather conditions or during operational malfunction or maintenance of the main treatment ponds in accordance with the Licence.
	Seepage of untreated wastewater from ponds, or infrastructure failure	Infiltration to groundwater	Provisions of the existing licence. All ponds are in-situ clay lined The location of the ponds in a hypersaline environment as well as the intermittent storage proposed, the standard of the pond lining is considered acceptable.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the licence 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 (*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	0.9 km north-west; and 1.4 km east
Environmental receptors	Distance from prescribed activity
Lake Lefroy And minor surface water lines	Approximately 1.5 km south-east of the premises Surface water lines run through the premises boundary, approximately 260 m south of the ponds towards Lake Lefroy
Cultural receptors	Distance from prescribed activity
Aboriginal heritage site Kambalda Stone Arrangement	Approximately 6.4 km north of the premises



Figure 1: Distance to sensitive receptors

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) 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 incomplete they have not been considered further in the risk assessment.

Where the licence 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 licence holder'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 licence 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 licence L8004/2005/4 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e Operating the WWTP and associated infrastructure.

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

Table 4. Risk assessment of potential emissions and discharges from the premises operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
Continued operation of wastewater treatment plant	Odour	Air/windborne pathway causing impacts to health and amenity	Residential Premises	Refer to Section 3.1	C = Slight L = Possible Low Risk	Y	N/A	N/A
	Discharges to land	Seepage to soil, surface water runoff and groundwater	Lefroy Lake	Refer to Section 3.1	C = Minor L = Possible Medium Risk	Y	N/A	N/A
	Spills/ leaks of untreated wastewater, treated wastewater and chemicals		Minor water line Residential Premises	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk			

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

Note 2: Proposed licence holder's controls are depicted by standard text. **Bold and underline text** 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
Application advertised on the department's website (16/06/2025)	None received	N/A
Licence holder was provided with draft amendment on 23 June 2025	Refer to Appendix 1	Refer to Appendix 1

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a revised licence 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 licence as part of the amendment process.

Table 6: Consolidation of licence conditions and summary of amendments

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Expiry Date: 04 July 2025	Expiry Date: 3 July 2035	Updated in accordance with the licence renewal
N/A Cover Page	Prescribed Premises Category table	N/A	Revised to current licensing format.
N/A	Definitions	Table 6	Revised to current licensing format.
1 (a)	Wastewater overflows and notification requirements	3	New numbering
1 (b)		4	
1 (c)		5	
2	Annual Environmental Report	N/A	No requirement to submit an AER as per amendment notice dated 16 May 2022
3 Table 1	Waste acceptance	2	New numbering

Existing condition	Condition summary	Revised licence condition	Conversion notes
			Revised to current licensing format including removal of reference to waste code Amended rate at which waste is received to align with information provided in amendment application form
4	Containment infrastructure	1	New numbering Revised to current licensing format
N/A	Annual Audit Compliance Report	11	New numbering Revised to current licensing format Amended due date from 1 October to 1 July
N/A	Records conditions	8-10	Included to reflect current licensing format
N/A	Monitoring	6-7	Included to reflect current licensing format and current site operations.
Schedule 1: Maps	Premises map	Schedule 1: Maps	Updated map and included the premises schematic
Schedule 2	Annual Audit Compliance Report	N/A	Redundant attachment. Deleted from Licence Forms accessed at www.dwer.wa.gov.au

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

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

Condition	Summary of licence holder's comment	Department's response
Condition 1, Table 1	Administrative changes requested.	Amended as requested.
Condition 2, Table 2	The licence holder would like to retain the wording from the existing licence " <i>cumulative volume as monthly average</i> "	<p>The Category description for Category 54 premises requires that throughput be calculated as cubic metres per day. Throughput is also measured as the maximum operational capacity of the WWTP. Through the assessment of this renewal, the Licence Holder as indicated that the current capacity of the premises is 800 cubic metres per day with a throughput of 600 cubic metres per day.</p> <p>Previous wording on the Licence indicates that the premises can exceed it's daily throughput through the calculation of a monthly average, which would place the licence holder in non-compliance.</p> <p>As such, this wording will be removed from the Licence. Should the Licence Holder wish to increase the premises permissible daily throughput they are able to do so through an amendment application.</p>
Condition 4	Administrative error	Amended as requested.
Condition 5	Minor wording changes to ensure the licence holder must notify the CEO of investigations into any incident within 7 days of the licence holder becoming aware of the incident. There is sometimes a lag between the incident commencing and the licence holder becoming aware of it.	Amended as requested.
Condition 6, Table 3	Licence holder provided an updated schematic, indicating the monitoring and discharge points.	New schematic incorporated into the licence
	The licence holder proposed a reduced frequency of monitoring from monthly to quarterly to match similar licences they manage.	The Delegated Officer has determined that the existing monitoring frequency of monthly reporting will be retained on the licence. This frequency was specified by the licence holder during the application process, as outlined in a Request for Further Information response received on 20 May 2025.

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Condition	Summary of licence holder's comment	Department's response
		In light of the Department's limited data on the premises' operations, and the limited controls in place for overtopping or seepage, maintaining the current monthly monitoring program is considered appropriate to facilitate the collection of relevant discharge information. The Delegated Officer notes that, should future monitoring indicate no issues, the licence holder may consider submitting an application to amend the monitoring requirements to reduce frequency.
	Correcting units of measurement for turbidity and conductivity	Amended as requested.
Condition 7	Administrative error	Amended as requested.
Definitions, Table 4	<p>The licence holder has requested the annual period definition be amended to match the AACR submission dates.</p> <p>Requested amendment from 1 October until 30 September to the new dates of 1 July until 30 June.</p>	Amended as requested, noting that the original AACR submission date was 1 October each year. In line with this date change request, the Delegated Officer has also amended the AACR submission date to 1 July each year.
Decision Report: Section 3.1.1, Table 2	Licence holder confirmed that no further controls are in place for overtopping/ spills/ seepage of wastewater and treated wastewater	Noted.
	<p>Licence holder confirmed that all ponds are in-situ clay lined with the following permeability:</p> <ul style="list-style-type: none"> - Kambalda WWTP (W1) – Permeability unknown - Kambalda East pond (W2) permeability is approximately 1×10^{-7} m/s; and - Kambalda West pond (W3) permeability is approximately 1×10^{-8} m/s 	Noted.