



## Application for Licence Amendment

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

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<b>Licence Number</b>	L6248/1991/8
<b>Licence Holder</b>	Water Corporation
<b>ACN</b>	28 003 434 917
<b>Application number</b>	APP-0030429
<b>Premises</b>	Karratha No. 1 Waste Resource Recovery Facility Lot 1933 Millstream Road KARRATHA WA 6714  Legal description – Lot 500 on Plan 74743 Lot 600 on Plan 74155 Lot 3921 on Plan 216652 Crown Reserve 35053  As defined by the coordinates in Schedule 1
<b>Date of Report</b>	12 January 2026
<b>Decision</b>	Revised licence granted

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## 1. Decision summary

Licence L6248/1991/8 is held by Water Corporation (licence holder) for the Karratha No.1 Waste Resource Recovery Facility (WRRF) (the premises), located at Lot 1933 Millstream Road in Karratha.

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 L6248/1991/8 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.

## 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 06 August 2025, the licence holder submitted an application to the department to amend licence L6248/1991/8 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- The removal of 10 sludge drying beds, and a temporary sludge bed from the construction requirements in Table 1 as they have been constructed;
- The removal of other related construction requirements of the sludge drying beds (Schedule 3: Minimum specification for concrete liner installation of sludge drying beds);
- Updating the names of the ponds in Table 4 to reflect the current pond function; and
- Updating the location of offsite monitoring bores (Table 8: Monitoring of ambient groundwater quality and Schedule 1, Figure 4).

The licence was amended in June 2023 for the addition of 10 sludge drying beds and 3 temporary sludge drying areas. The Environmental Compliance Report was submitted on 1 July 2024 for the 10 sludge drying beds. Compliance documents were reviewed by the department and compliance was demonstrated. One of the three temporary sludge drying beds was constructed in Area 3 in August 2023. The Environmental Compliance Report for the temporary sludge bed constructed in Area 3 was submitted on 2 January 2025. Water Corporation plans to construct temporary sludge beds in Areas 1 and 2 at a later stage and requests that these related construction conditions are kept on the licence. Geobags are to be used for sludge storage in the temporary sludge storage area.

Water Corporation has informed the department that the treatment pond name change reflects a change in terminology only, and that the function of the ponds has not changed over the years. As the function of the ponds has not changed, a risk assessment of this aspect of the application has not been conducted as part of 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 *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 1 below. Table 1 also details the proposed control measures the licence holder has proposed to assist in controlling these emissions, where necessary.

**Table 1: Licence holder controls**

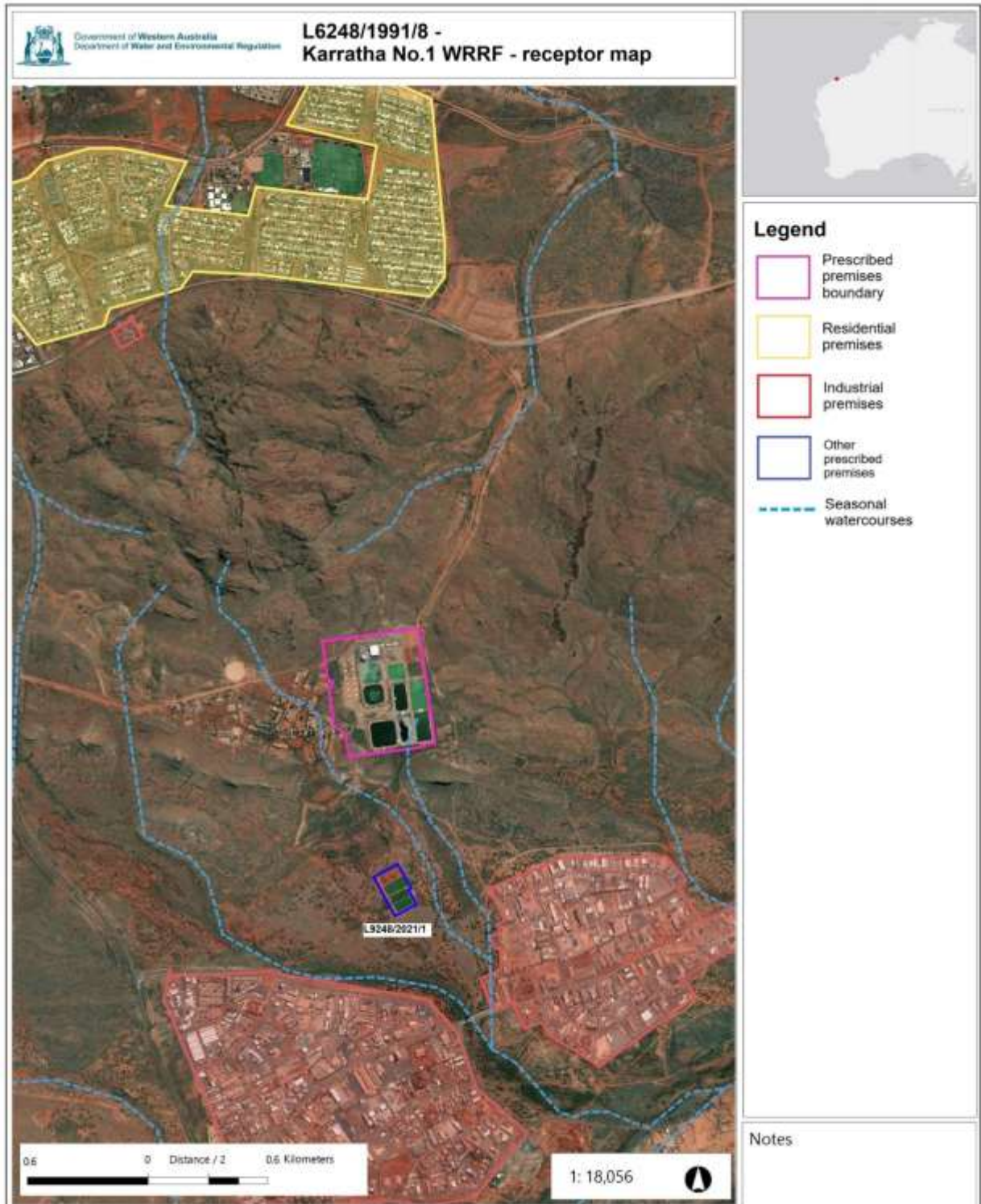
Emission	Sources	Potential pathways	Proposed controls
Odour	Operation of sludge drying beds	Air/windborne pathway	No additional controls proposed
Spills / leaks of sludge / contaminated stormwater	Operation of sludge drying beds	Overland flow and subsurface seepage to soil and groundwater	No additional controls proposed
Leachate	Operation of sludge drying beds	Subsurface seepage to soil and groundwater	No additional controls proposed

##### 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 2 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 2: Sensitive human and environmental receptors and distance from prescribed activity**

<b>Human receptors</b>	<b>Distance from prescribed activity</b>
Industrial premises	670 m south of the premises boundary
Residential premises	1.8 km north of the premises boundary
<b>Environmental receptors</b>	<b>Distance from prescribed activity</b>
<i>Rights in Water and Irrigation Act 1914</i> proclaimed areas	Located in Pilbara Surface Water and Groundwater areas
Native vegetation	Within and surrounding the premises boundary
Seasonal watercourses	420 m north, 1.1 km east and running through the premises boundary



**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 holder 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 3.

The revised licence L6248/1991/8 that accompanies this amendment report authorises emissions associated with the operation of the premises i.e. sewage treatment activities.

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

**Table 3. Risk assessment of potential emissions and discharges from the premises during operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls/ DWER comments
Source / Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
<b>Operation</b>								
Operation of sludge drying beds	Odour	<b>Pathway:</b> Air/windborne pathway  <b>Impact:</b> Health and amenity	<ul style="list-style-type: none"> <li>Industrial premises 670 m south of premises boundary</li> <li>Residential premises 1.8 km north of premises boundary</li> </ul>	Refer to Section 3.1	C = Minor L = Rare <b>Low Risk</b>	Y	Condition 23	The delegated officer notes that no odour complaints have been recorded. The existing conditions on the licence are deemed sufficient to manage odour risk.
	Spills / leaks of sludge / contaminated stormwater	<b>Pathway:</b> Overland flow and subsurface seepage to soil and groundwater  <b>Impact:</b> Health and amenity, groundwater quality	<ul style="list-style-type: none"> <li>Underlying groundwater</li> <li>Seasonal watercourses 420 m north, 1.1 km east and running through the premises boundary</li> </ul>	Refer to Section 3.1	C = Moderate L = Possible <b>Medium Risk</b>	N	Conditions 5, 8, 10 and 15  <b><u>Condition 6 and Condition 7</u></b>	<p>The delegated officer notes the proximity of the premises to seasonal watercourses. In January of 2025 the licence holder notified the department of a discharge event regarding an overflow from the storage pond and the sludge drying beds. It has also been noted by the licence holder that anaerobic pond 2 has been used for sludge storage for a period longer than 12 months. The delegated officer considers a sludge spill/leak to be possible; either due to weather conditions or from the overproduction of sludge.</p> <p>Due to the discharge event sludge drying bed requirements have been added to condition 7 to instruct that no overtopping of the ponds or sludge drying beds is to occur. Condition 7 has also been updated to support the use of geobags to store and dewater sludge.</p> <p>The storage of sludge in a non-dedicated pond (anaerobic pond 2) is being managed by the department under ICMS 87774.</p>

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 4 provides a summary of the consultation undertaken by the department.

**Table 4: Consultation**

Consultation method	Comments received	Department response
Licence holder was provided with draft amendment on (11 December 2025)	Licence holder provided comment on 07 January 2026. See Appendix 1	See 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 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 licence as part of the amendment process.

**Table 5: Consolidation of licence conditions in this amendment**

Revised licence condition	Condition summary	Existing condition	Conversion notes
N/A	N/A	N/A	Rewording of "shall" to "must" as per current licensing format
Cover page	Cover page of licence	Cover page	Added ACN to cover page Added instrument number to cover page
Condition 1 Table 1	Construction phase infrastructure requirements	Condition 1 Table 1	Removed the construction of the reconstructed sludge drying beds (10) Removed the construction of temporary sludge drying bed area 3.
Condition 6 Table 4	Containment infrastructure	Condition 6 Table 4	Renaming of Oxidation ponds 1b, 2 – 6. Addition of leachate drainage requirements moved from construction requirements for the temporary sludge beds to the infrastructure requirements.
Condition 7	Management of treatment storage ponds	Condition 7	Addition of sludge drying beds to this condition.
Condition 12	Time between sampling	Condition 12	Removed monthly monitoring and six monthly monitoring distance requirements.
Condition 15	Monitoring of ambient	Condition 15	Updating the naming of offsite monitoring bores.

Revised licence condition	Condition summary	Existing condition	Conversion notes
Table 8	groundwater quality	Table 8	
Schedule 1, Figure 1	Premises map	Schedule 1, Figure 1	Updated premises map with more recent site image.
Schedule 1, Figure 4	Map of offsite monitoring locations	Schedule 1, Figure 4	Figure updated to show new monitoring bore locations.
Schedule 1, Figure 5	Map of premises infrastructure	Schedule 1, Figure 5	Figure updated to show complete construction of temporary sludge drying area and reconstruction of sludge drying beds 1 to 10.
N/A	Sludge drying beds approved for reconstruction and operation	Schedule 1, Figure 6	Figure removed, works completed and location of infrastructure included in Figure 5.
Schedule 1, Figure 6	Temporary sludge drying beds	Schedule 1, Figure 7	Updated to note the construction of temporary sludge beds completed in Area 3. Figure number updated.
N/A	Minimum specification for concrete liner installation of sludge drying beds	Schedule 3	Removed from licence. Sludge beds have been constructed.
N/A	Notification of detection of the breach of a limit	Schedule 4, Forms	Redundant condition, removed from licence

## References

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

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

Condition	Summary of licence holder's comment	Department's response
6, Table 4	<p>Water corporation request removal of the 300 mm freeboard requirement for SDBs from Table 4.</p> <p>The Sludge Drying Beds (SDBs) operate under controlled sludge loading and do not function as liquid containment structures. Given the low hydraulic loading and absence of surcharge conditions, a prescribed 300 mm freeboard provides no additional risk reduction and is not standard practice for SDBs.</p> <p>Condition 7(a) includes a requirement that all wastewater treatment storage ponds, and sludge drying beds are managed such that overtopping does not occur. Water Corporation consider this to be a sufficient control for the SDBs.</p>	<p>The delegated officer has removed the freeboard requirements for the sludge drying beds from condition 6, table 4 and agrees that condition 7 (a) is sufficient in requiring the prevention of overtopping of the beds.</p>