

Amendment Report

Application for Licence Amendment

Part V Division 3 of the Environmental Protection Act 1986

| Licence Number | L6248/1991/8 |
|----------------|--|
| Licence Holder | Water Corporation |
| File Number | DER2013/001029-1 |
| Premises | 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; and |
| | Lot 3921 on Plan 216652 |
| | Crown Reserve 35053 |
| | As defined by the Premises maps in Schedule 1 and the coordinates in Schedule 2 of the Revised Licence |
| Date of Report | 01/06/2023 |
| Decision | Revised licence granted |

Abbie Crawford

A/MANAGER, WASTE INDUSTRIES

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

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1. Decision summary

Licence L6248/1991/8 is held by the Water Corporation (Licence Holder) for the Karratha No. 1 Wastewater Treatment Plant (the Premises), located at Reserve 35053, Lot 1933 Millstream Road, 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 construction and 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. 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 Amendment summary

The Licence Holder operates the Karratha No. 1 Wastewater Treatment Plant, which treats wastewater to a secondary standard. Treated wastewater is either reused by the City of Karratha to reticulate ovals in Karratha or is discharged to offsite contingency evaporation / infiltration basins.

On 20 March 2023, 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). This amendment is limited only to the following:

- Reconstruction and operation of 10 sludge drying beds;
- Alter the conditioned approval specifying proposed material composition and construction type of 10 of the 24 sludge drying beds;
- Rename the premises from Karratha No.1 Wastewater Treatment Plant to Karratha No.1 Waste Resource Recovery Facility;
- Amend the AER and AACR reporting timeframe from 1 September to 1 October annually;
- Minor alteration to wording of licence conditions Table 2.2.1 and Table 3.3.1 to accurately reflect that treated wastewater in excess of that used for Shire reuse, is disposed of to evaporation/infiltration basins; and
- Add and authorise 3 temporary sludge drying beds (TSDB) to be built and operated onsite, to allow flexibility to rebuild the bed after its emptied and before the sludge removal cycle begins.

Twenty four permanent sludge drying beds are present at the premises which are lined with a geosynthetic clay liner (GCL), which were constructed in 2013 under Works Approval W5138/2012/1 to enable routine online desludging of the primary 'smart' ponds. Each bed is approximately 30 m wide by 20 m long and have perimeter concrete walls approximately 1 m high. The beds were first used in May 2019. Within 24 hours of sludge beds being filled,

ground wetting due to seepage was noted immediately adjacent to the external walls at several locations. Five days after filling, this seepage had extended to about 2 m away from these external walls. The Licence Holder decided in September 2019 to cease usage of all sludge drying beds as it appeared that all were leaking to some, unacceptably high, degree.

With the sludge drying beds being out of service the ponds are not being routinely desludged as required by the original design and maintenance program for the WWTP, which can cause treatment and odour issues.

Investigations have found GCL is not a preferred liner option as when it dries out between uses it is easily damaged by media and vehicle traffic. Remedial action is proposed to retain the existing bed structure and reline the floors with concrete. Due to limited funding only 10 beds will be remediated to enable the sludge accumulation for inflows up to 5 ML/day. The Licence Holder intends to repair the drying beds with concrete for it's durability in harsh conditions with long wet/dry cycles to meet a permeability of $\leq 2.96 \times 10^{-9}$ m/sec.

The existing walls of the sludge drying beds were deemed to be over-restrained and underreinforced, therefore, it was considered likely that rigid repairs using injection grouting would not prevent the development of new cracking. Methodologies that allow the walls some movement have been adopted to limit the likelihood of the development of new cracks. A series of repair details have been developed where the largest cracks will be sealed for water retention but enable expansion and contraction to relieve stresses in the structure. A dual layer sealant system will be used to provide added protection.

The slab has been designed in accordance with AS 3735 *Concrete Structures for Retaining Liquid* to support the weight of a nominal 5 tonne vehicle carrying a full load of sludge, in addition to media material loads, thermal and shrinkage effects, where it will be jointless, 40 MPa concrete with dual layers of reinforcement to minimise risk of leakage. The slab levels and falls are based on the existing design and drains have been integrated to replicate the original design intent. The interface with the existing concrete base layer comprises of a retrofitted water stop and sealant layer selected based on operational and environmental factors to mitigate the risk of leakage at the interface to the existing base layer. The detail has been designed to accommodate the maximum expected slab shrinkage, thermal shrinkage, and differential settlement under loading. Joint details inclusive of water stops and sealants have been selected based on operational and environmental factors to mitigate the risk of leakage at the interface slab shrinkage, thermal shrinkage, and differential settlement under loading. Joint details inclusive of water stops and sealants have been selected based on operational and environmental factors to mitigate the risk of leakage at the interface.

Based on the current plant inflows and projected future inflows, Water Corporation engineers have advised that the 10 refurbished sludge drying beds will be sufficient to cater for sludge removal from the anaerobic pond, as designed on a six-weekly basis. The Licence Holder has not yet made a decision with regards to the remaining 14 sludge drying beds that are not being refurbished.

In the mean time, three temporary sludge drying beds (TSDB) (Figure 2) are required to enable immediate desludging of the wastewater treatment ponds and the 10 permanent beds, prior to any reconstruction works occurring. The TSDB will be reformed and rebuilt after each desludging event, because the liner is typically removed and replaced before the next event occurs, as it gets worn down by vehicle movements from the removal of sludge and Geobags and is exposed to the elements and not kept saturated.

The TSDBs will be built with soils that are compacted using a grader and mounded up with a 500 mm wide and 300 mm high embankment . A liner is installed on top of this, which will be either a linear low-density polyethylene liner or high-density polyethylene liner that is designed to meet a permeability rating of 1 x 10^{-9} m/sec. The liner is anchored by placing soil cover on top to protect the liner from tearing. In the case that the liner was to fail, the compacted hardstand acts as a secondary protection to leachate loss, which can be broken down and removed to prevent the escape of any contaminated soil into the environment.

Two typical desludging methods are proposed at the premises. The first method involves sludge extraction via a Sludge Rat immersed in the pond that pumps the sludge, dosed with a polymer to thicken it, into a Geobag. When the Geobag fills the leachates return to the treatment pond via the sump.

When the Sludge Rat is unable to effectively remove sludge from the treatment pond, the second method is to drain and dry. In this situation, the operator will isolate the specific pond, which bypasses the wastewater flow to the next pond. An excavator is then used to enter the pond to remove the sludge using excavator buckets, which is then transported to a TSDB and mounded for drying. Once the sludge is dry and spadable and a licenced receiver is available, the sludge is tested and taken offsite by a controlled waste carrier to the receival site.

There are no proposed changes to Category 54 activities from the previously assessed Existing Licence L6248/1991/1, as outlined in Table 1. Figure 1 shows the existing 24 sludge drying beds and the 10 beds that will be remediated.

| Category | Assessed design capacity |
|---|--------------------------|
| Category 54: Sewage facility: premises (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters. | 10 000 m³ per day |





Figure 1: Permanent sludge drying beds 1 to 10 to be reconstructed



Proposed Temporary sludge drying Areas Area 1 - leachate to drain into pit after inlet screens Area 2 - Leachate to be pumped back into Anaerobic Pond 1 or Pond 4 Area 3 – Leachate to drain into Pond 1b

Figure 2: Three temporary sludge drying beds to be constructed

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 construction and 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.

| Sources | Emission | Potential pathways | Proposed controls |
|---|----------|-----------------------|--|
| Vehicle movements on | Dust | Air / wind pathway | Visual inspections of dust plumes and dust emissions. |
| unsealed surfaces and use of machinery and | | | Wetting/dust suppression of stockpiles, unsealed roads and surfaces using benign dust suppressants. |
| equipment. | | | High-risk weather conditions (windy, hot and dry) will be monitored and works during these conditions will be avoided, where practicable. |
| | | | Reduced speed limit on site. |
| | Noise | Air / wind pathway | Work periods are usually between 7.00am and 6.00pm. |
| | | | Night construction works are not expected to occur. |
| | | | An EMP will be developed to detail noise contingency measures, dealing with noise complaints, exceedances of assigned noise levels, and measures to reduce excessive noise. |
| Drying of sludge within permanent | Leachate | Subsurface seepage | Constructed to AS 3735 Concrete Structures for Retaining Liquid to meet a permeability of ≤ 2.96 x 10-9 m/sec. |
| beds 1 – 10 | | | Dual layer sealant system between existing slab and new concrete layer. |
| | | | • Retain existing slab levels and falls, existing drains. |
| | | | Concrete slabs to be jointless, 40 MPa concrete with dual layers of reinforcement. |
| | | | Joins with existing pipework to be inclusive of water stops and sealants. |

Table 2: Licence Holder controls

| Sources | Emission | Potential pathways | Proposed controls |
|--|----------|--|--|
| Drying of sludge within three temporary sludge drying beds | Leachate | Subsurface seepage and surface runoff | Beds will be built with soils that are compacted using a grader and mounded up with a 500 mm wide and 300 mm high embankment. Lined with a 1 mm thick linear low-density polyethylene or high density polyethylene, to achieve a permeability of 1 x 10⁻⁹ m/sec or less, and be capable of preventing surface run-off of leachate and sludge. Leachate from the sludge drying beds are directed back to the either a treatment pond or inlet of the WWTP. |

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 environmenta | I receptors and distance from prescribed |
|---|--|
| activity | |

| Human receptors | Distance from prescribed activity |
|--|---|
| Karratha Village Lodge | 1.2 km south west of the premises boundary |
| Best Western Karratha | 1.5 km west of the premises boundary |
| Residences of east Karratha | 1.6 km north of the premises boundary |
| | The Delegated Officer considers that due to distance there is no likely impact upon these residences, so they are not considered further as receptors within this assessment. |
| Environmental receptors | Distance from prescribed activity |
| Underlying groundwater (non-potable purposes) | The water table in the Pilbara fractured rock aquifer is described generally as being within 5 – 10m of the surface and varying seasonally by 2 – 3m. Groundwater varies seasonally between 3.8 – 6.2mBTOC within bore 04/14 located on the southern boundary of the premises at 18 mAHD. Local groundwater flow information is not available and regional groundwater flow is inferred to be north or northeast towards Nickol Bay. There are no known groundwater uses in Karratha. |
| DBCA Legislated Tenure – Karratha Arboretum | Approximately 250 m southeast of the premises boundary |



Figure 3: 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 in-complete 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 L6248/1991/8 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises.

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

| Risk Event | | | | | Risk rating ¹ | Risk rating ¹ | Licence | | |
|--|--------------------|--|--|---------------------------------|---|-------------------------------------|---------------------------------------|---|--|
| Source/Activities | Potential emission | Potential pathways and impact | Receptors | Licence Holder's controls | C = consequence L = likelihood | Holder's controls sufficient? | Conditions ² of licence | Justification for additional regulatory controls | |
| Construction | | | | | | | | | |
| Vehicle movements on unsealed | Dust | Air/windborne pathway causing | None | See section 3.1 | No receptors pres | ent | | | |
| machinery and use of equipment. | Noise | health and amenity | None | See section 3.1 | No receptors pres | ent | | | |
| Operation | | | | | | | | | |
| Drying of sludge within permanent sludge drying concrete beds 1 – 10 | Leachate | Subsurface seepage to soil and groundwater impacting groundwater quality, soil health and vegetation health | Groundwater (approximately 5 mbgl) Karratha Arboretum (650 m north east and down hydraulic gradient) | See section 3.1 | C = Minor L = Unlikely Medium Risk | Yes | Condition 1 | The Delegated Officer notes the risk of leachate is directly related to the effectiveness of the controls put into place during construction, and for ongoing operational maintenance, to ensure the permanent sludge drying beds are free of leaks and defects. The request for the sludge drying beds to be constructed to meet a permeability of 2.96 x 10 ⁻⁹ m/sec is operationally sufficient given a sludge drying bed is used intermittently and is not permanently full of water. As such, the Delegated Officer shall apply infrastructure construction requirements on the Revised Licence. In addition, the Delegated Officer shall prevent usage of the remaining sludge drying beds 11 to 24 to minimise the risk of leachate. | |

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

Licence: L6248/1991/8

IR-T15 Amendment report template v3.0 (May 2021)

| Risk Event | | | | | Risk rating ¹ | Licence | | |
|---|--------------------|--|--|---------------------------------|--|-------------------------------------|---------------------------------------|--|
| Source/Activities | Potential emission | Potential pathways and impact | Receptors | Licence Holder's controls | C = consequence L = likelihood | Holder's controls sufficient? | Conditions ² of licence | Justification for additional regulatory controls |
| Drying of sludge within temporary sludge drying beds 1 – 3 | Leachate | Subsurface seepage to soil and groundwater impacting groundwater quality, soil health and vegetation health | Groundwater (approximately 5 mbgl) Karratha Arboretum (650 m north east and down hydraulic gradient) | See section 3.1 | C = Minor L = Unlikey Medium Risk | Yes | Condition 1 | The Delegated Officer notes the risk of leachate is directly related to the effectiveness of the controls put into place during construction, and for ongoing operational maintenance, to ensure the temporary sludge drying beds are free of leaks and defects. The requirement for the temporary sludge drying beds to be constructed to meet a permeability of 1 x 10^{-9} m/sec is operationally sufficient. The Delegated Officer shall apply infrastructure construction requirements on the Revised Licence to ensure this permeability standard is met. |

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 | | |
|--|----------------------|----------------------|--|--|
| Licence Holder provided with draft amendment (30/05/2023) | 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.

| Condition no. | Previous condition no. | Proposed amendments | |
|---------------|------------------------|---|--|
| N/A | N/A | Premises name altered as requested to Karratha No. 1 Waste Resource Recovery Facility. | |
| N/A | 1.1.1 | Interpretation is a redundant condition, revised to current licensing format | |
| N/A | 1.1.3 | Australian or other standard is a redundant condition, revised to current licensing format | |
| N/A | 1.1.4 | Reference to code of practice is a redundant condition, revised to current licensing format | |
| N/A | 1.3.1 | Record and investigate exceedances of limits or targets is a redundant condition, revised to current licensing format | |
| 1 Table 1 | N/A | Addition of design and construction requirements for the refurbishment of the 10 permanent sludge drying beds and the construction of the three temporary sludge drying beds. | |
| 2 | N/A | Addition of construction compliance reporting conditions | |
| 3 | N/A | | |
| 5 Table 3 | 1.3.1 Table 1.3.1 | Addition of requirement 1 for the processing of sewage sludge, to ensure sludge is stored in geobags within the three temporary or 10 permanent sludge drying beds | |
| 6 Table 2 | 1.3.4 Table 1.3.3 | Row 6 insertion of containment infrastructure requirements for the 10 permanent sludge drying beds. Row 7 insertion of containment infrastructure requirements for the three temporary sludge drying beds. | |
| 8 | | Addition of sludge drying beds the existing condition, to ensure | |

Table 6: Summary of licence amendments

| | | stormwater runoff does not enter the beds. | |
|---|----------------------|---|--|
| 10 Table 5 | 2.2.1 Table 2.2.1 | Row 1 amended to modify the source to read 'Treated wastewater' for clarity, as requested by the Licensee. | |
| 14 Table 7 | 3.3.1 Table 3.3.1 | Row 2 amended to modify the Input/Output to read 'Water Recycling Plant' for clarity. Row 3 amended to modify the phrase 'ponds' to read 'basins' for clarity, as requested by the Licensee. | |
| 15 Table 8 | 3.4.1 Table 3.4.1 | Row 1 amended to modify the monitoring point references to specify all points for clarity. | |
| N/A | 4.1.2 | Redundant condition. Deleted from licence. | |
| 16 | 4.1.4 | Revised to current licensing format. | |
| 17 | 4.1.3 | Revised to current licensing format. Due date for AACR amended as requested to be 1 October annually. | |
| 18 | N/A | Revised to current licensing format. | |
| 20 Table 9 | 4.2.1 Table 4.2.1 | Revised to current licensing format. Due date for environmental report amended as requested to be 1 October annually. Reference to condition numbers in Table 9 updated to new number format. | |
| 21 | 4.2.2 (a) | Redundant condition. Revised to current licensing format. | |
| 23 Table 11 | 4.3.1 Table 4.3.1 | Row 3 amended to include the requirements of Note 3 regarding notification of desludging occurrences, methods and odour mitigation actions. Row 3 amended to add notification on which temporary or permanent sludge drying bed is being desludged. | |
| Definitions Table 12 | 1.1.2 | Note 3 deleted. Definitions are redundant conditions, revised to current licensing format and moved to Table 12. Definitions updated to include approved form, AS 3735, condition and suitably qualified civil engineer | |
| Schedule 1 Maps | Schedule 1 Maps | Addition of Figure 6 depicting the 10 permanent sludge drying beds approved for reconstruction and operation. Additon of Figure 7 depicting the three temporary sludge drying beds approved for construction and operation. Reference to table numbers in figure descriptions updated to new number format | |
| Schedule 2 Premises boundary | N/A | Revised to current licensing format, removed from premises address. | |
| Schedule 3 Minimum specification for concrete liner installation of sludge drying beds | N/A | Addition of minimum specifications for concrete liner installation of sludge drying beds. | |
| Schedule 4 | Schedule 2 | Annual Audit Compliance Report form is a redundant attachment, | |

| Forms | Reporting & | deleted from licence |
|-------|-----------------------|--|
| | notification forms | Form accessed at <u>www.dwer.wa.gov.au</u> |

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 | |
|---|---|--|--|
| Condition 1 Table 1 | Requested sludge drying beds to be liner to have permeability of 1 x 10^{-9} m/s instead of ≤ 2.96 x 10^{-9} m/sec | The permeability value of $\leq 2.96 \times 10^{-9}$ for the 10 sludge drying beds is in accordance with the application specification. No change to licence required. | |
| | Remove minimum/maximum dimension to allow flexibility in the size of the temporary sludge drying bed. The additional areas suggested in Figure 6 have alternative dimensions & as suggested above, there could be some reason part of the area is used for other works. | The request to amend the application to allow for three temporary sludge drying beds has been incorporated into this assessment report. The licence has been updated accordingly. | |
| Condition 6 Table 4 Storage Pond in previous licence on nexus is listed as unlined and in amendment is: "Geosynthetic clay lined to achieve a permeability of <10-9 m/s or equivalent" – did this change occur prior to the amendment? | | As per the Licence granted on 19 May 2016, the Storage Pond is required to be "Geosynthetic clay lined to achieve a permeability of <10-9 m/s or equivalent." Alteration of this licence condition is not subject to this assessment report. | |
| | Typo in Table 4, spaces needed: Oxidation Ponds 1a, 1b, 2 & 3 | Accepted Licence updated | |
| Condition 10 Table 5 | Does this mean evaporation/infiltration basins can be used regularly instead of only for contingency? | The amendment to the wording was requested by the Licence Holder and is only to clarify the original intention of the licence condition, it does not convey an altered purpose and is not subject to this assessment report. | |
| Condition 13 Table 6 | Typo in Table 6 - pH parameter superscript. | Accepted Licence updated | |

| Condition | Summary of Licence Holder's comment | Department's response | |
|--------------------------|---|---|--|
| Condition 15 Table 8 | Typo in Table 8 MB2.14 should read M2/14. | Accepted Licence updated | |
| Condition 22 | Typo capitalisation required in condition 22 "Licence" | Accepted Licence updated | |
| Condition 24 Table 11 | Do we need to notify DWER when we are doing operational desludging (I.e. pumping sludge from anaerobic ponds to sludge drying beds). Online Desludging to the concrete areas can be continuous and does not require notification. Temporary Desludging events would require notification. | Notifications for desludging events is an existing licence requirement. No change to licence required. | |
| Figure 5 | Remove reference to Oxidation Pond 1A and update infrastructure aerial map. Oxidation Pond 1A was decommissioned and backfilled in 2018 and therefore does not exist anymore. Shire ponds and overflow ponds outside of WWTP have been decommissioned in 2018 and no longer exists. | An update to existing infrastructure was not requested to be amended in the application, so is not subject to this assessment report. No change to licence required. The Applicant is advised to lodge a licence amendment if this needs to be altered. | |
| Figure 6 | As per drawing attached below for more temporary sludge drying bed areas to allow more flexibility for projects/operations to carry out desludging works if needed if 1 x area for some reason is being taken for other works. | The sludge drying beds identified in Figure 6 of the Licence are the 10 original sludge drying beds the Applicant has requested to refurbish due to historical leakage. No change to licence required. This is not to be confused with the Temporary Sludge Drying Bed specified in Figure 7, for the purpose of containing sludge that will be removed from the ponds in the urgent works. The request to amend the application to allow for three temporary sludge drying beds has been incorporated into this assessment report. The licence has been updated accordingly. | |
| Condition 21 Table 9 | Methodology and calculations used to estimate the daily volumetric flow rate of treated wastewater pumped to evaporation basins and results of those calculations. I haven't seen this request in any other licence. All flows are being recorded by flow meters so not sure this is necessary. | Alteration of this licence condition is not subject to this assessment report. No change to the licence required. | |
| | Monitoring Bore C has been taken offline due to being dry. However, | Alteration of this licence condition is not subject to this assessment | |

| Condition | Summary of Licence Holder's comment | Department's response |
|-----------|--|--|
| | there is an adjacent bore 4/20 that is equivalent and readable we would like to replace C with 4/20 while we investigate why Bore C is dry. Bore C to be replaced with 4/20. | report. No change to licence required. The Applicant is advised to lodge a licence amendment if this needs to be altered. |

Appendix 2: Application validation summary

| SECTION 1: APPLICATION SUMMARY | | | | | | |
|-----------------------------------|---|---|--------------|------------|--|--|
| Application type | | | | | | |
| Works approval | | | | | | |
| | | Relevant works approval number: | | Non e | | |
| | | Has the works app complied with? | Yes 🗆 |] No 🗆 | | |
| Licence | | Has time limited o the works approva acceptable operat | Yes 🗆 | ∃ No □ N/A | | |
| | | Environmental Compliance Report / Critical Containment Infrastructure Report submitted? | | Yes 🗆 No 🗆 | | |
| | | Date Report receiv | ved: | | | |
| Renewal | | Current licence number: | | | | |
| Amendment to works approval | | Current works approval number: | | | | |
| | | Current licence number: | L6248/1991/8 | | | |
| Amendment to licence | | Relevant works approval number: | | N/A | | |
| Registration | | Current works approval number: | | Non e | | |
| Date application received | | 21/03/2023 | | | | |
| Applicant and Premises details | | | | | | |
| Applicant name/s (full legal name | Water Corporation | | | | | |
| Premises name | Karratha No. 1 Wastewater Treatment Plant | | | | | |
| Premises location | | Lot 500 on Deposited Plan 74743 Lot 600 on DP 74155; and 3921 on DP 216652 | | | | |
| | | Crown Reserve 35053 Millstream Road, Karratha, Western Australia, 6714 | | | | |
| Local Government Authority | | City of Karratha | | | | |
| Application documents | | | | | | |
| HPCM file reference number: | | DER2013/001029-1~2 | | | | |

| Key application documents (additional to application form): | | na No.1 WRRF – Slu | dge Dying Bed Relining Project | | | |
|---|--|--|--|--|--|--|
| Scope of application/assessment | • | | | | | |
| | Repair and operation of wastewater sludge drying beds 1. Renaming of Karratha No.1 Wastewater Treatment Plant (WWTP) to Karratha No.1 Waste Resource Recovery Eacility (WRRE): | | | | | |
| Summary of proposed activities or changes to existing operations | 2. Ame as spe Octobe | 2. Amendment to the AER and AACR reporting timeframe as specified in Condition 4.2.1 from 1 September to 1 October, annually; and | | | | |
| | 3. Ame 10 of th | end the material comp ne 24 sludge drying b | position and construction type of peds. | | | |
| | 4. Add built ar of licer emptie | 4. Add and authorise a temporary sludge drying bed to be built and operated onsite under condition 1.3.4; Table 1.3.3 of licence, to allow flexibility to rebuild the bed after its emptied and before the sludge removal cycle begins. | | | | |
| Category number/s (activities that ca | use the | premises to becom | ne prescribed premises) | | | |
| Table 1: Prescribed premises catego | ries | | | | | |
| Prescribed premises category and description | | Assessed production or design capacity | Proposed changes to the production or design capacity (amendments only) | | | |
| Category 54: Sewage facility premises – | | 10 000 cubic metres | | | | |
| (a) on which sewage is treated (excluding tanks); or | septic | (No change to | | | | |
| (b) from which treated sewage is discharg onto land or into waters. | ed | assessed capacity proposed) | | | | |
| Legislative context and other approvals | | | | | | |
| Has the applicant referred, or do they refer, their proposal to the EPA under of the EP Act as a significant proposal | intend to Part IV ? | Yes □ No ⊠ | | | | |
| Does the applicant hold any existing Part IV Ministerial Statements relevant to the application? | | Yes □ No ⊠ | | | | |
| Has the proposal been referred and/or assessed under the EPBC Act? | | Yes □ No ⊠ | | | | |
| Has the applicant demonstrated occupancy (proof of occupier status)? | | Yes ⊠ No □ | | | | |
| Has the applicant obtained all relevant planning approvals? | | Yes □ No □ N/A ⊠ | | | | |

| Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal? | Yes □ No ⊠ | No clearing is proposed. |
|--|---------------|--|
| Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal? | Yes □ No ⊠ | No clearing is proposed. |
| Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal? | Yes □ 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 □ No ⊠ | |
| Is the Premises situated in a Public Drinking Water Source Area (PDWSA)? | Yes □ No ⊠ | |
| Is the Premises subject to any other Acts or subsidiary regulations (e.g. Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx) | Yes ⊠ No □ | Environmental Protection (Controlled Waste) Regulations 2004 |
| Is the Premises within an Environmental Protection Policy (EPP) Area? | Yes 🗆 No 🗵 | |
| Is the Premises subject to any EPP requirements? | Yes 🗆 No 🗵 | |
| Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ? | Yes ⊠ No □ | Classification: Portion of Lot 3921 on Deposited Plan 216652- Remediated for restricted use Portion of Lot 500 on Deposited Plan 74743 – Remediated for restricted use Additional portion of Lot 500 on Deposited Plan 74743 - Remediated for restricted use Date of classification: N/A |