Amendment Report

Application for Licence Amendment

Part V Division 3 of the Environmental Protection Act 1986

Licence Number L8039/1994/3

Licence Holder Water Corporation

ACN 28 003 434 917

File Number 2010/003340-1~2

Premises North Geraldton Wastewater Treatment Plant

Via Glenfield Beach Drive

GLENFIELD WA 6532

Legal description -

Being Lot 21 on Plan 19887 as defined by the premises map

attached to the revised licence

Date of Report 20 March 2023

Decision Revised licence granted

Steve Checker

MANAGER WASTE INDUSTRIES

REGULATORY SERVICES

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

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1. Decision summary

Licence L8039/1994/3 is held by the Water Corporation (licence holder) for the North Geraldton Wastewater Treatment Plant (the premises), located at Lot 21 on Plan 19887, Glenfield, WA.

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 L8039/1994/3 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 18 November 2022, the licence holder submitted an application to the department to amend licence L8039/1994/3 under section 59 and 59B of the *Environmental Protection Act* 1986 (EP Act). The following amendments are being sought:

- Sludge drying bed infrastructure and operation approval, including approval to store geobags (containing sludge) in the sludge drying bed.
- Construction of a PVC pipe leachate drain that directs leachate from the southeast corner of the lined sludge drying bed to the inlet section of the adjacent primary facultative pond (Pond 1A) via gravity.
- Removal of geobags containing dried sludge (biosolids) to a licenced facility.

The sludge drying bed was constructed in 2021 without authorisation and consists of a:

- 25 m wide by 70 m long sludge drying bed (geobag lay down area)
- 500 mm wide x 300 mm high embankment
- Compacted base
- LLDPE (Linear Low-density Polyethylene) 1.00 mm liner with 'L' shape anchors. The liner has a permeability of 2 x 10⁻¹⁰ m/s.

The applicant notified the department of the sludge drying bed construction on 17 November 2022. The operation of the sludge drying bed will allow the licence holder to remove and dry sludge formed during wastewater treatment, which is essential for it to be safely disposed of, and to maintain effluent treatment quality. The construction of a leachate drain will ensure leachate collected in the sludge drying bed liner is directed back to the primary facultative pond (Pond 1A).

The design capacity and throughput remain unchanged.

Additionally, the licence holder is requesting a change to the following reporting requirements:

- Annual Environmental Report (AER) to be submitted on 1 October annually
- Annual Audit Compliance Reports (AACR) to be submitted on 1 October 2024 and annually thereafter.

The Delegated Officer considers that the change in reporting date does not impact the risk profile of the premises and does not need a detailed assessment. AACRs are required to be submitted annually; therefore, the DO considers that a 1 October 2023 submission is required with 1 October annual submissions going forward.

In amending the licence, the CEO has also:

- updated the format and appearance of the licence;
- revised licence condition's numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

All changes as they relate to this revised licence are detailed in Section 4.1.

The department has not undertaken any additional risk assessment of the premises related to previously assessed activities.

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 |
|----------|--|--|--|
| Leachate | Leakage from the sludge drying bed from | Infiltration through soil to groundwater, | Leachate from the sludge drying bed is returned to Pond 1A through a PVC pipe drain (leachate drain) via gravity. |
| | stored geobags | potentially altering underlying groundwater and surface water quality (Indian | Inspections of sludge drying beds are undertaken and if found not compliant with WQPN26, the liner and sludge drying beds are reconstructed/replaced prior to desludging events. |
| | | Ocean) | Dredging is not carried out during rainfall events. |
| | | | The base of the sludge drying bed is compacted and lined with a 1.00mm LLDPE (Linear Low-density Polyethylene) liner with a permeability of 2 x 10 ⁻¹⁰ m/s. |
| | | | An embankment surrounds the sludge drying bed. |
| Leachate | Leakage from proposed leachate drain due to pipe damage, defects, or faulty seals | Infiltration through soil to groundwater, potentially altering underlying groundwater and surface water quality (Indian Ocean) | None specified. |
| Noise | Construction of | Air/windborne | None specified. |
| Dust | Leachate Drain | pathway causing impacts to health and amenity | None specified. |
| Odour | Desludging of containment ponds involving pumping wet sludge into geobags located on sludge drying beds Storage of sludge in the temporary sludge drying bed. | Air/windborne pathway causing impacts to health and amenity | Controls within the existing licence apply |

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

| Human receptors | Distance from prescribed activity |
|--|---|
| Residential housing and buildings | The closest being approximately 329 m east northeast and east, 435 m east southeast and 510 m southeast. |
| | (Measurements are taken from the southeast corner of the sludge drying bed to the buildings on the residential properties). |
| Vacant residential zoned land | One Lot adjacent to - and another Lot approximately 255 m from the premises boundary on the northeast corner. |
| Civic and cultural zoned premises | Approximately 261 m east of the premises boundary. No construction as yet. |
| Special use zoned area (Lifestyle Village) | Approximately 175 m south of the premises boundary. No construction as yet. |
| Environmental receptors | Distance from prescribed activity |
| Indian Ocean | Approximately 288 m west southwest of the northwestern corner of the sludge drying bed boundary. |
| Groundwater | There are 3 groundwater bores located within 1 km of the premises: |
| | Groundwater bore (Site Id. 20003013) located approximately 226 m southeast of the premises, identifies groundwater at approximately 3 mBGL, with a TDS of 2,800 mg/L. It is used for agricultural purposes. |
| | Groundwater bore (Site Id. 23043810) located approximately 932 m north of the premises boundary, identifies groundwater at approximately 4.1 mBGL with a TDS of 21,000 mg/L. |
| | Groundwater bore (Site Id. 14111032) located within the premises on the eastern boundary identifies groundwater at 9.5 mBGL with a TDS of 7404 mg/L. |
| | Geraldton North Wastewater Treatment Plant (WWTP) groundwater bores (Site Id. 1/97, 2/97, 3/97, 4/97, 5/97 and 6/97) are located within the premises boundary. |

Groundwater depth of on-site bores, measured in May 2022 (Tape Ridge from Top of Casing (TOC)):

Groundwater bore (Site Id. 1/97) identifies groundwater at 8.47 m with a TDS of 1300mg/L

Groundwater bore (Site Id. 2/97) identifies groundwater at 8.47 m with a TDS of 1690 mg/L

Groundwater bore (Site Id. 3/97) identifies groundwater at 8.54 m with a TDS of 3360mg/L

Groundwater bore (Site Id. 4/97) identifies groundwater at 8.54 m with a TDS of 1490 mg/L

Groundwater bore (Site Id.) 5/97 identifies groundwater at 12.4 m with a TDS of 11460 mg/L

Groundwater bore (Site Id. 6/97) identifies groundwater at 12.4 m with a TDS of 2180 mg/L

If leachate reaches the soil, it has the potential to impact the underlying groundwater quality, which also has the potential to affect surface water quality (Indian Ocean).

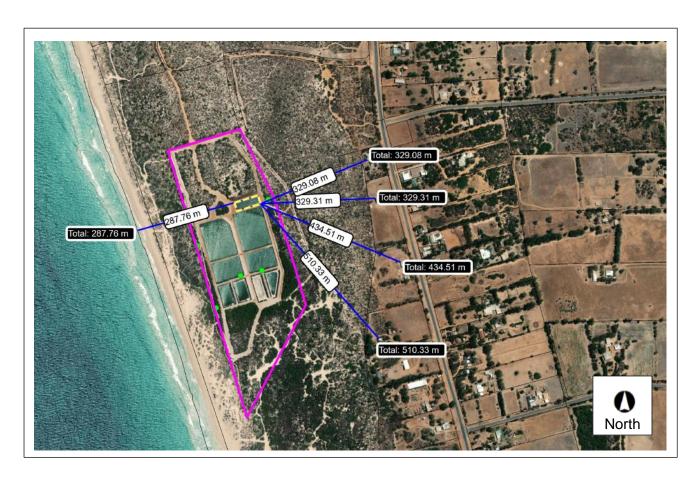


Figure 1: Distance to sensitive human and environmental receptors.

Note: The pink line denotes the premises boundary, and the yellow dashed line denotes the sludge drying bed boundary.

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 3.

The revised licence L8039/1994/3 that accompanies this amendment report authorises emissions associated with the operation of the premises i.e. construction and operation of the sludge drying bed and leachate drain.

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 construction and operation

| 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 |
| Construction | | | | | | | | |
| Construction of | Dust | Air/windborne pathway causing impacts to health and amenity | Residential housing and buildings - the closest being ~329 m east northeast and east, ~435 m east southeast and ~510 m southeast. Refer to Table 1 Refer to Table 1 | | C = Slight L = Unlikely Low Risk | Y | N/A | The construction is minor and of limited duration, therefore no additional controls have been applied. |
| underground leachate drain (PVC pipe drain) Vehicle movements | Noise | | | | C = Slight L = Unlikely Low Risk | Y | N/A | The construction is minor and of limited duration, therefore no additional controls have been applied. In the event of any noise impacts, noise emissions are adequately regulated by the provisions of the Environmental Protection (Noise) Regulations 1997. |
| Operation | | | | | | | | |
| Draining of leachate from the sludge drying bed via the leachate drain to Pond 1A | Nutrient rich leachate and suspended sediment due to failure of the leachate drain to contain leachate | Infiltration through soil to groundwater, changing groundwater chemistry and potentially causing ecosystem disturbance via migration to surface water (Indian Ocean) | Indian Ocean ~288m west southwest Groundwater 3m-4.1 mBGL | Refer to Table 1 | C = Minor L = Rare Low Risk | N | Condition 10 | Specifications for the leachate drain construction, location, maintenance, and operation have been set to mitigate risks associated with emissions and discharges to the receiving environment. The addition of the leachate drain does not further alter the risk of leachate emissions, providing leachate drain is well sealed and leachate is contained within the drain. |
| Storage of geobags (containing sludge) in sludge drying bed | Nutrient rich leachate and suspended sediment due to damaged liner or damaged geobags in sludge drying bed. | Infiltration through soil to groundwater, changing groundwater chemistry and potentially causing ecosystem disturbance via migration to surface water (Indian Ocean) | within 1 km of premises and 8.47-12.4 m (tape ridge from TOC) within premises boundary | Refer to Table 1 | C = Minor L = Rare Low Risk | Y | Condition 9 and Condition 10 | Specifications for the sludge drying bed size, location, liner, maintenance, and operation have been set to mitigate risks associated with emissions and discharges to the receiving environment. The addition of the sludge drying bed does not further alter the risk of leachate emissions, providing it is contained and is returned to Pond 1A for retreatment. |

| Risk Event | Risk Event | | | | | | | |
|--|-----------------------|---|--|---------------------------------|-----------------------------------|-------------------------------------|--|---|
| 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 |
| | Odour | Air/windborne pathway causing impacts to health and amenity | Residential housing and buildings – the closest being ~329m east northeast and east, ~435m east southeast and ~510m southeast. | Refer to Table 1 | C = Slight L = Unlikely Low Risk | Y | Conditions 2, 4, 7, 9 and 16 | No additional controls added as existing general conditions listed are sufficient to manage the risk. |
| Desludging activities – dredging of sludge into geobags within sludge drying bed | Odour | Air/windborne pathway causing impacts to health and amenity | Residential housing and buildings – the closest being ~329m east northeast and east, ~435m east southeast and ~510m southeast. | Refer to Table 1 | C = Slight L = Unlikely Low Risk | Y | Conditions 2, 4, 7, 9, 16 and 33 | No additional controls added as existing general conditions listed are sufficient to manage the 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. 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.

4.1 Summary of amendments

Table 4 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Licence as part of the amendment process.

Table 4: Summary of licence amendments

| Condition no. | Proposed amendments |
|----------------------|--|
| N/A | Licensee reworded to 'licence holder'. |
| N/A | 'Shall' reworded to 'must'. |
| N/A | Deletion of Introduction – revised to current licensing format. |
| N/A | Insertion of 'Infrastructure and equipment' heading. |
| N/A | Prescribed premises category table revised to current licencing format – deletion of category production or design capacity column. 'Approved premises production or design capacity column heading changed to 'Assessed design capacity'. |
| N/A | Licence history table updated to include 04/08/2017 licence amendment and this amendment. |
| N/A | Interpretation section updated to new wording format and revised to current licensing format. |
| N/A | Definitions for 'Fugitive emissions' and 'Act' have been removed as they are no longer required. The definition for 'EP Act' replaces 'Act'. The definitions list has been moved to Table 12 at the end of the conditions. |
| N/A Table 12 | Definitions for 'annual period','CEO', 'Licence', 'Licensee' and 'Premises' have been updated to the new wording format. |
| N/A Table 12 | Insertion of definitions for 'prescribed premises', 'sludge', 'EP Act', 'EP regulations', 'emission', 'discharge', 'Department', 'books' and 'AS/NZS 2031'. |
| N/A | Table 1.3.1. (Table 1) 'Putrescible and Organic wastes' row removed. |
| Condition 9 Table 3 | Insertion of 2 rows in Table 3 to include sludge drying bed infrastructure requirements and operation. |
| Condition 10 Table 4 | Insertion of Condition 10 and Table 4 to include sludge drying bed infrastructure requirements and operation. |
| Condition 10 Table 4 | Construction of a PVC pipe leachate drain that directs leachate from the southeast corner of the lined sludge drying bed to the adjacent primary facultative pond (Pond 1A) via |

| | gravity. |
|--|--|
| Condition 9 Table 3 | Removal of geobags containing dried sludge (biosolids) to a licenced facility. |
| N/A | 'Emissions' headings changed to 'Emissions and discharges' – update to wording format. |
| 2.2-2.4 | Deletion of redundant conditions. |
| 2.6 | Deletion of redundant condition. |
| 2.8 | Deletion of redundant condition. |
| 3.2-3.4 | Deletion of redundant conditions. |
| 3.7 | Deletion of redundant condition. |
| 3.9 | Deletion of redundant conditions. |
| N/A | 'Improvements' heading deleted – no conditions in this section. |
| N/A | 'Information' heading deleted and updated to 'Records and reporting'. |
| Condition 26 | New numbering. Note: AACR reporting date changed to 1 October annually. |
| Condition 27 | Replaces condition 5.1.4 – New numbering and update to new wording format. |
| Condition 28 | New condition added – Revised to current licensing format. |
| Condition 29 | New condition added – Revised to current licensing format. |
| Condition 30 | Change to the Annual Environmental Report (AER) reporting date – to be submitted on 1 October annually. Table 9 has been updated as LR and AGWQ1 forms referred to in Table 9 are redundant. |
| Condition 33 | Table 11 (Note 2) has been updated – forms are available on the Department's website. |
| N/A | Conversion of the licence to the new format and reissue of licence. |
| Schedule 1: Maps Figure 1 | Previous premises map replaced with updated version. |
| Schedule 1: Maps Figure 2 | Updated premises map including sludge drying bed location. |
| Schedule 1: Maps Figure 3 | Map of containment infrastructure and monitoring locations replaced with updated version (includes sludge drying bed). |
| Schedule 2: Reporting and notification forms | Redundant attachments. Deleted from Licence. Forms accessed at www.dwer.wa.gov.au N1 form retained and updated to new format. |

Table 5: Consolidation of licence conditions in this amendment

| Existing condition | Condition summary | Revised licence condition | Conversion notes |
|-------------------------------|---|---|---|
| N/A | Introduction | Deleted | Redundant. |
| N/A | Prescribed premises category table | N/A | Revised to current licensing format – deletion of category production or design capacity column. 'Approved premises production or design capacity' column heading changed to 'Assessed design capacity' as per the revised licencing format. |
| 1.1.1 1.1.2 | Interpretation and definitions | N/A Interpretation section, Definitions and Table 12 | Redundant conditions. Revised to current licensing format. The definitions for 'Fugitive emissions' and 'Act' have been removed as they are no longer required. The definition for 'EP Act' replaces 'Act'. Definitions for 'annual period', 'CEO', 'Licence', 'Licensee' and 'Premises' have been updated to the new wording format. The definitions list has been moved to Table 12 at the end of the conditions. Definitions for 'prescribed premises', 'sludge', 'EP Act', 'EP regulations', 'emission', 'discharge', 'Department', 'books' and 'AS/NZS 2031' have been added. |
| 1.1.3 | Australian or other standard | N/A Interpretation section, Definitions and Table 12 | Redundant. Revised to current licensing format. |
| 1.1.4 | Reference to code of practice | Moved to Interpretation section, definitions, and Table 1 | Redundant condition. Revised to current licensing format. |
| 1.2.1 | Emissions | Condition 1 | New numbering. Revised to current licensing format. |
| 1.2.2 | Pollution control and monitoring equipment | Condition 2 | New numbering. Revised to current licensing format. |
| 1.2.3 | Storage of environmentally hazardous materials | Condition 3 | New numbering. Revised to current licensing format. |
| 1.2.4 | Recovery and removal of spills | Condition 4 | New numbering. Revised to current licensing format. |
| 1.2.5 | Management and containment of contaminated stormwater | Condition 5 | New numbering. Revised to current licensing format. |
| 1.3.1 1.3.2 Table 1.3.1 | Waste acceptance | Condition 6 and 7 Table 1 | New numbering. Revised to current licensing format. |

| Existing condition | Condition summary | Revised licence condition | Conversion notes |
|----------------------|---|---------------------------|---|
| 1.3.3 Table 1.3.2 | Waste processing | Condition 8 Table 2 | New numbering. Revised to current licensing format. |
| 1.3.4 Table 1.3.3 | Containment infrastructure – storage and treatment of waste material infrastructure | Condition 9 Table 3 | New numbering. Revised to current licensing format. Addition of sludge drying bed requirements in Table 3. |
| 1.3.5 | Management of wastewater treatment and infiltration ponds | Condition 11 | New numbering. Revised to current licensing format. |
| 1.3.6 | Disposal of treated wastewater to the Overflow Collection Area | Condition 12 | New numbering. Revised to current licensing format. |
| 1.3.7 | Security measures | Condition 13 | New numbering. Revised to current licensing format. |
| 2.1.1 | Record and investigate exceedances of limits or targets | Condition 14 | New numbering. Revised to current licensing format. |
| 2.2-2.4 | Point source emissions to air, surface water and groundwater | Deleted | There are no specified conditions relating to point source emissions to air, surface water or groundwater in this section. |
| 2.5.1 Table 2.5.1 | Emissions to land | Condition 15 Table 5 | New numbering. Revised to current licensing format. |
| 2.6 | Fugitive emission | Deleted | There are no specified conditions relating to fugitive emissions in this section. |
| 2.7.1 | Odour emissions | Condition 16 | New numbering. Revised to current licensing format. |
| 2.8 | Noise emissions | Deleted | There are no specified conditions relating to noise in this section. |
| 3.1.1 | Sampling requirements | Condition 17 | New numbering. Revised to current licensing format. |
| 3.1.2 | Monitoring requirements | Condition 18 | New numbering. Revised to current licensing format. |
| 3.1.3 | Monitoring equipment requirements | Condition 19 | New numbering. Revised to current licensing format. |
| 3.1.4 | Reporting modification to monitoring methods | Condition 20 | New numbering. Revised to current licensing format. |
| 3.2-3.4 | Monitoring of point source emissions to air, surface water and groundwater | Deleted | There are no specified conditions relating to monitoring of point source emissions to air, surface water and groundwater in this section. |

| Existing condition | Condition summary | Revised licence condition | Conversion notes |
|----------------------|--|---------------------------|--|
| 3.5.1 Table 3.5.1 | Monitoring of point source emissions to land | Condition 8 Table 6 | New numbering. Revised to current licensing format. |
| 3.6.1 Table 3.6.1 | Monitoring of inputs and outputs | Condition 22 Table 7 | New numbering. Revised to current licensing format. |
| 3.7 | Process monitoring | Deleted | There are no specified conditions relating to process monitoring in this section. |
| 3.8.1 Table 3.8.1 | Ambient environmental quality monitoring | Condition 23 Table 8 | New numbering. Revised to current licensing format. |
| 3.9 | Meteorological monitoring | Deleted | There are no specified conditions relating to meteorological monitoring in this section. |
| 4 | Improvements | Deleted | There are no specified improvement conditions in this section. |
| 5.1.1 | Records | Condition 24 | New numbering. Revised to current licensing format. |
| 5.1.2 | Awareness of conditions of the licence | Condition 25 | New numbering. Revised to current licensing format. |
| 5.1.3 | Annual Audit Compliance Report requirements | Condition 26 | New numbering. |
| 5.1.4 | Complaints management system | Condition 27 | New numbering and update to wording format. |
| 5.2.1 Table 5.2.1 | Annual Environmental Report | Condition 30 Table 9 | Table 9 (and Note 1 attached to Table 9) have been updated as forms LR and AGQ1 are no longer required. New numbering. Revised to current licensing format. |
| 5.2.2 | Annual Environmental Report requirements | Condition 31 | New numbering. Revised to current licensing format. |
| 5.2.3 Table 10 | Non-annual reporting requirements | Condition 32 | New numbering. Revised to current licensing format. |
| 5.3.1 Table 11 | Notification requirements | Condition 33 | Note 2 in Table 11 has been updated to note that forms are available on the Department's website. New numbering and update to wording format. 'Act' has been updated to 'EP' Act'. |
| Schedule 1: Maps | Premises map Map of containment infrastructure and monitoring locations | Schedule 1: Maps | New naming convention, maps updated. |

| Existing condition | Condition summary | Revised licence condition | Conversion notes |
|---|--|---------------------------|---|
| Schedule 2 Reporting & notification forms | Annual Audit Compliance Report Proforma LR1 Form AGWQ1 Form Form N1 Notification | Deleted N1 form retained | Redundant attachments. Deleted from licence. Forms accessed at www.dwer.wa.gov.au N1 form has been revised to current licensing format. |

References

- 1. Department of Environment and Conservation (DEC) 2012, Western Australian Guidelines for Biosolids Management, Perth, Western Australia
- 2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- 3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
- 4. DWER 2020, Guideline: Risk Assessments, Perth, Western Australia.
- 5. Water Corporation 2022, Annual Environmental Report; Geraldton North Wastewater Treatment Plant Part V Licence L8039/1994/3 1 July 2021 to 30 June 2022, 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 9, Table 3 | Remove "Sludge generated from treatment process to be stored within the sludge drying bed only (inside geobags) prior to off-site disposal or reuse to a licensed facility" from Row 7, Table 3 or amend paragraph to "All sludge from desludging activities shall be contained within the sludge drying bed at all times". The importance is for all sludge to be contained within the drying bed, not the geobags, as spillage of dried sludge during removal from geobags is likely. | The Delegated Officer considers the licence holder's response reasonable; therefore, alternate wording is deemed acceptable with retention of the wording "prior to off-site disposal or reuse to a licensed facility" to ensure the dried sludge is disposed of in accordance with these specifications. |
| Condition 9, Table 3 | Remove "500 mm wide x 300 mm high embankment. Lined with 1 mm thick LLDPE (Linear Low-density polyethylene" to allow the licence holder flexibility to determine the best way to meet requirements, to provide better or equivalent liners and to keep up with material and technology changes. | Specifications regarding sludge drying bed embankment and liner specifications were provided by the licence holder in the application supporting documents and assessment is based on these specifications; therefore, the Delegated Officer considers embankment and liner specifications will remain with the addition of "or equivalent" to allow the licence holder some flexibility. The EP Act allows maintenance provisions for elements of infrastructure, however changes to different materials or specifications require a licence amendment. |
| Condition 10, Table 4 | Amend "All leachate to be directed to the adjacent primary facultative pond (Pond 1A) via the leachate drain connecting them" in Row 1, Table 4 to add "pond inlet section" to clarify the importance of leachate reaching the pond inlet section to avoid short circuiting risks, as opposed to leachate being directed to the pond outlet section where it would not be treated by Pond 1A. | The Delegated Officer considers the licence holder's amendment request as necessary to minimise risks of emissions and approves the request. |
| Condition 10, Table 4 | Remove "Dredging is not to be carried out during rainfall events" in Row 1, Table 4. The dredging method used is not weather dependent and is based on effluent being returned back to the pond undergoing desludging as soon as possible to maintain maximum pond level (allows large equipment to be used). | The licence holder specified in the application supporting documents that dredging would not be carried out during rainfall events; however, the Delegated Officer considers the that the dredging method is not weather dependent and will not increase the risk of emissions. |

| Condition | Summary of licence holder's comment | Department's response |
|--|--|--|
| Condition 15, Table 5 | Infiltration Ponds can receive treated effluent from any Maturation Pond; therefore the "Source including abatement" column of Table 5 should include both Pond 2 and Pond 4 for emission points L1, L2, L3 and L4. This will allow operational flexibility when Infiltration ponds require maintenance. Note: Request is unrelated to amendment. | The Delegated Officer considers the licence holder's response and the "Source including abatement" column has been amended to allow treated wastewater to be pumped from maturation Pond 2 or 4 for emission points L1, L2, L3 and L4. |
| Schedule 1: Maps Figure 1, Page 22 Figure 2, Page 23 | The figure on page 22 should be Figure 2 however it is referenced as Figure 1. | The Delegated Officer considers this is an error and has corrected the figure label on page 22 to Figure 2 and the figure label on page 23 to Figure 3. References to these figures have also been amended. |

Appendix 2: Application validation summary

| SECTION 1: APPLICATION SUMMARY (as updated from validation checklist) | | | | | |
|---|---|--|--------------|-------|------------|
| Application type | | | | | |
| Works approval | | | | | |
| | | Relevant works approval number: | | None | |
| | | Has the works approval been complied with? | | Yes □ | No □ |
| Licence | | Has time limited operations under the works approval demonstrated acceptable operations? | | Yes □ | No □ N/A □ |
| | | Environmental Compliance Report submitted? | | Yes □ | No □ |
| | | Date Report received: | | | |
| Renewal | ₽ | Current licence number: | | | |
| Amendment to works approval | ₽ | Current works- approval number: | | | |
| Amandment to license | | Current licence number: | L8039/1994/3 | | |
| Amendment to licence | | Relevant works approval number: | | N/A | |
| Registration- | ₽ | Current works approval number: | | None | Ф |
| Date application received | | 18 November 2022 | | | |
| Applicant and premises details | | | | | |
| Applicant name/s (full legal name/s) | | Water Corporation | | | |
| Premises name | | North Geraldton Wastewater Treatment Plant | | | |
| Premises location | | Lot 21 on Plan 19887 GLENFIELD WA 6532 | | | |
| Local Government Authority | | City of Greater Geraldton | | | |
| Application documents | | | | | |
| HPCM file reference number: | | 2010/003340-1 | | | |
| Key application documents (additional to application form): | | Signed licence application form to request for licence conditions to be amended to prescribe the activities and infrastructure relating to the sludge drying bed constructed (under the guidance of WQPN 26) without obtaining necessary approvals from DWER | | | |
| | | Licence amendment supporting information | | | |
| | | Notification under S.53 EP Act in relation to the construction of desludging containment infrastructure (sludge drying bed) without a works approval | | | |
| Scope of application/assessment | | | | | |
| Summary of proposed activities or changes to existing operations. | | Licence | | | |

The Licence holder is requesting DWER to prescribe the following activities and infrastructure: Approval requested to de-sludge the existing ponds and pump the wet sludge into the geobags situated on the sludge drying bed. Geobags will drain leachate to the sludge drying bed back to Pond 1A. The sludge will be left to dry. Once dry, the sludge material (biosolids) will be tested and either sent to an appropriately classed landfill or properly licensed facility for reuse as per the "Western Australian Guidelines for Direct Land Application of Biosolids and Biosolids Products". Construction of a PVC pipe leachate drain to direct leachate from the sludge drying bed to Pond 1A. The existing desludging containment infrastructure was constructed on site, in 2021 without authorisation 25m Width by 70m Long Embankment (500mm wide X 300mm high. Compacted Base LLDPE (Linear Low-density polyethylene) 1.00mm with "L" shape anchors Permeability of 2 x 10⁻¹⁰ m/s The licence holder is also requesting for ongoing maintenance of the sludge drying beds. If found not compliant to specification per WQPN 26, sludge drying beds and liners can be reconstructed/ replaced before desludge events to ensure containment specifications are met. Category number/s (activities that cause the premises to become prescribed premises) Table 1: Prescribed premises categories

| Prescribed premises category and description | Assessed production or design capacity | Proposed changes to the production or design capacity (amendments only) | | |
|--|--|---|--|--|
| Category 54: Sewage facility | 690 cubic metres per day | N/A | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Legislative context and other approvals | | | | |

Yes □ No □

Licence: L8039/1994/3

significant proposal?

Referral decision No:

Managed under Part V □

Assessed under Part IV □

Has the applicant referred, or do they

under Part IV of the EP Act as a

intend to refer, their proposal to the EPA

| Does the applicant hold any existing Part IV Ministerial Statements relevant to the application? | Yes □ | No ⊠ | Ministerial statement No: EPA Report No: |
|---|-------|------------|---|
| Has the proposal been referred and/or assessed under the EPBC Act? | | No ⊠ | Reference No: |
| Has the applicant demonstrated occupancy (proof of occupier status)? | Yes ⊠ | No □ | Certificate of title □ General lease □ Expiry: Mining lease / tenement □ Expiry: Other evidence □ Expiry: |
| Has the applicant obtained all relevant planning approvals? | Yes 🗆 | No □ N/A ⊠ | Approval: Expiry date: If N/A explain why? The premises has been defined within the City of Greater Geraldton (CGG) Local Planning Scheme No. 5, located within the Glenfield Special Control Area 2 (SCA2) zoning. In addition: Following gazettal of the Water Services Act 2012 (as gazetted on 18 November 2013), Section 137 of the Water Services Act 2012, identifies that Water Corporation (in its capacity as service provider) is exempt from the requirement to obtain development approvals for Public Service Works. |
| 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? | | 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 □ | Name: N/A Type: Proclaimed Groundwater Area/Surface Water Area Has Regulatory Services (Water) been consulted? Yes □ No □ N/A ☒ Regional office: Swan Avon / Mid- West Gascoyne / Kwinana Peel / North West / South West / Goldfields / South Coast |
|--|------------|---|
| Is the premises situated in a Public Drinking Water Source Area (PDWSA)? | Yes □ No □ | Name: N/A Priority: P1 / P2 / P3 / N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes □ No □ N/A ⊠ |
| 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 Contaminated Sites Act 2003? | Yes □ No ⊠ | N/A |