



Department initiated Amendment

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

Licence Number	L4884/1992/12
Licence Holder	Water Corporation
File Number	2010/003540-1
Premises	<p>Bullsbrook Water Resource Recovery Facility (formerly Bullsbrook Wastewater Treatment Plant)</p> <p>2768, 2788, 2818 and 2820 Great Northern Highway</p> <p>BULLSBROOK WA 6084</p> <p>Legal description –</p> <p>Lot 6 on Diagram 17646 and Lots 9000, 9001 and 9002 on Plan 40152</p> <p>Certificate of Title Volume 2623 Folios 487 - 490</p> <p>As defined by the Premises maps in Schedule 1 and coordinates in Schedule 2 of the Revised Licence</p>
Date of Report	05 May 2022
Decision	Revised licence granted

**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

The Delegated Officer has determined to make amendments to Licence L4884/1992/12. The amendments do not alter the risk profile of the Premises, providing that activities, emissions and receptors as stated in existing approvals remain unchanged.

The amendments are in relation to information gaps in the premises' groundwater monitoring program, identified during the assessment of works approval W6528/2021/1.

Following the receipt of comments from the Licence Holder, the Delegated Officer has also determined to extend the duration of the licence by 12 months and update the name of the premises.

This Amendment Report documents the amendments made pursuant to section 59 and 59(B) of the *Environmental Protection Act 1986* (EP Act).

The decision report for the Existing licence will remain on the department's website for future reference and will act as a record of the department's decision making.

2. Scope of assessment

2.1 Regulatory framework

In amending the licence, 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

Licence L4884/1992/12 is held by Water Corporation (Licence Holder) for the Bullsbrook Water Resource Recovery Facility (WRRF), formerly known as the Bullsbrook Wastewater Treatment Plant (WWTP) (the Premises). The Premises is located at 2768, 2788, 2818 and 2820 Great Northern Highway, Bullsbrook.

The Premises relates to the category and the assessed design capacity under Schedule 1 of the Environmental Protection Regulations 1987 (EP Regulations) which are defined in existing Licence L4884/1992/12.

On 11 March 2022, the department initiated an amendment to Licence L4884/1992/12. The amendment is limited to addressing a number of information gaps in the groundwater monitoring program required by Licence L4884/1992/12. These information gaps were identified during the assessment of the application for Works Approval W6528/2021/1 and the department's intent to initiate an amendment to update the groundwater monitoring program was stated in the decision on the works approval (DWER 2021a).

The assessment and decision for Works Approval W6528/2021/1 noted the following deficiencies:

- Existing bores that are required to be monitored through the conditions of Licence L4884/1992/12 are located upgradient of the containment swale and bores recently installed downgradient of the swale are not subject to licence requirements;
- Existing monitoring bores included on the licence may not be sufficiently installed to distinguish between perched groundwater and regional groundwater;
- An annual monitoring frequency is not adequate to characterise groundwater conditions at the Premises due to seasonal variations; and
- The current analysis suite does not include metal species.

In consideration of the above, the Delegated Officer determined to make the following amendments to Licence L4884/1992/12:

- Nested monitoring bores installed in 2019 (1/19 – 4/19) will replace existing bores 1/92, 3/92, 4/92 and 5/92 that are required to be monitored through condition 8;
- The monitoring frequency required by condition 8 will be increased to quarterly; and
- Aluminium, copper, nickel and zinc, which are potentially elevated above background concentrations (Cardno 2020, DWER 2021a), will be included in the suite of monitoring parameters required through condition 8.

The Delegated Officer considers the increased frequency of monitoring required by condition 8 necessary to gather sufficient data prior to the proposed decommissioning of the premises.

Additional to the proposed amendments identified in the decision for Works Approval W6528/2021/1, the Delegated Officer will also amend condition 4 to require the monitoring of aluminium, copper, nickel and zinc concentrations within the WWTP discharge at a six-monthly frequency.

3. Consultation

The Licence Holder was provided with the draft Amendment Report on 31 March 2022. Comments received from the Licence Holder on 29 April 2022 have been considered by the Delegated Officer as detailed in Appendix 1.

The Department of Health (DoH) submitted comments on the related application for Works Approval W6528/2021/1 on 10 June 2021. Additional to commentary on the specific subject of the works approval application (extension of the containment/infiltration swale), DoH stated that newly installed groundwater wells located downgradient of the containment swale should replace existing wells (1/92 to 5/92) as site monitoring bores.

The Delegated Officer will provide a copy of this decision and Revised Licence L4884/1992/12 for information purposes to the Department of Health.

4. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that an amended 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 1 below provides a summary of the proposed amendments and will act as a record of implemented changes. All proposed changes have been incorporated into the Revised licence as part of the amendment process.

Table 1: Summary of licence amendments

Condition no.	Proposed amendments																											
Licence Duration	The licence duration is amended for an additional 12 months by inclusion of the red text and deletion of the strikethrough text shown below: 16/10/2023 16/10/2024																											
Premises name	The name of the premises is amended by inclusion of the red text and deletion of the strikethrough text shown below: Bullsbrook Wastewater Treatment Plant Bullsbrook Water Resource Recovery Facility																											
Condition 4	<p>The emissions and discharge monitoring table (Table 2) associated with the condition is amended by inclusion of the red text shown below:</p> <table border="1"> <thead> <tr> <th>Discharge point</th> <th>Monitoring location</th> <th>Parameter</th> <th>Unit</th> <th>Averaging period</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td rowspan="13">IDEA Discharge Pipe</td> <td rowspan="13">IDEA Discharge Pipe; and Levee bank spillway (if flowing)</td> <td>pH¹</td> <td>pH</td> <td rowspan="13">Spot sample or 24 hour composite sample</td> <td rowspan="10">Monthly</td> </tr> <tr> <td>Total Suspended Solids</td> <td rowspan="10">mg/L</td> </tr> <tr> <td>Total Dissolved Solids</td> </tr> <tr> <td>Biochemical Oxygen Demand (BOD)</td> </tr> <tr> <td>Total Nitrogen</td> </tr> <tr> <td>Ammonium as nitrogen</td> </tr> <tr> <td>Nitrate + nitrite as nitrogen</td> </tr> <tr> <td>Total Phosphorus</td> </tr> <tr> <td>Total aluminium</td> <td rowspan="3">6 Monthly</td> </tr> <tr> <td>Total copper</td> </tr> <tr> <td>Total nickel</td> </tr> <tr> <td>Total zinc</td> </tr> <tr> <td><i>Escherichia coli</i>²</td> <td>cfu/100mL</td> </tr> </tbody> </table>	Discharge point	Monitoring location	Parameter	Unit	Averaging period	Frequency	IDEA Discharge Pipe	IDEA Discharge Pipe; and Levee bank spillway (if flowing)	pH ¹	pH	Spot sample or 24 hour composite sample	Monthly	Total Suspended Solids	mg/L	Total Dissolved Solids	Biochemical Oxygen Demand (BOD)	Total Nitrogen	Ammonium as nitrogen	Nitrate + nitrite as nitrogen	Total Phosphorus	Total aluminium	6 Monthly	Total copper	Total nickel	Total zinc	<i>Escherichia coli</i> ²	cfu/100mL
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Condition 8	<p>The groundwater monitoring of ambient concentrations table (Table 3) associated with the condition is amended by inclusion of the red text and deletion of the strikethrough text shown below:</p> <table border="1"> <thead> <tr> <th>Monitoring well location</th> <th>Parameter</th> <th>Unit</th> <th>Frequency</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td rowspan="9">1/02, 2/02, 1/19S, 1/19D, 2/10S, 2/19D, 3/19S, 3/19D, 4/19S, 4/19D, 3/02, 4/02 and 5/02 (as depicted in Figure 3 of Schedule 1).</td> <td>Standing Water Level¹</td> <td>mAHD</td> <td rowspan="9">Annually Quarterly</td> <td rowspan="9">Spot sample, in accordance with AS/NZS 5667.1 and 5667.11.</td> </tr> <tr> <td>pH¹</td> <td>pH</td> </tr> <tr> <td>Total Dissolved Solids</td> <td>mg/L</td> </tr> <tr> <td>Total Nitrogen</td> </tr> <tr> <td>Total Phosphorus</td> </tr> <tr> <td>Dissolved aluminium</td> </tr> <tr> <td>Dissolved copper</td> </tr> <tr> <td>Dissolved nickel</td> </tr> <tr> <td>Dissolved zinc</td> </tr> </tbody> </table> <p>Note 1: In field non-NATA accredited analysis permitted</p>	Monitoring well location	Parameter	Unit	Frequency	Method	1/02, 2/02, 1/19S, 1/19D, 2/10S, 2/19D, 3/19S, 3/19D, 4/19S, 4/19D, 3/02, 4/02 and 5/02 (as depicted in Figure 3 of Schedule 1).	Standing Water Level ¹	mAHD	Annually Quarterly	Spot sample, in accordance with AS/NZS 5667.1 and 5667.11.	pH ¹	pH	Total Dissolved Solids	mg/L	Total Nitrogen	Total Phosphorus	Dissolved aluminium	Dissolved copper	Dissolved nickel	Dissolved zinc							
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Condition no.	Proposed amendments
Definitions	The following definition is added: <i>quarterly means the 4 inclusive periods from 1 July to 30 September, 1 October to 31 December, 1 January to 31 March in the following year and 1 April to 30 June in the following year.</i>
Schedule 1	Figure 1 is updated to a recent aerial photo and detailed layout of the premises
Schedule 1	A new figure (Figure 3) is added showing the location of the monitoring bores

References

1. Australian and New Zealand Governments and Australian state and territory governments (ANZG) 2018, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Canberra, Australian Capital Territory. Available at www.waterquality.gov.au/anz-guidelines.
2. Cardno 2020, *Environmental site investigation: Bullsbrook wastewater treatment plant*, Unpublished report. (DWER reference: A1997941).
3. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
4. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
5. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
6. DWER 2021a, *Decision Report W6528/2021/1*. Issued 22 September 2021. accessed: https://www.der.wa.gov.au/images/documents/our-work/licences-and-works-approvals/Decisions/_W6528-2021-1_DR.pdf (DWER reference: A2047180).
7. DWER 2021b, *Assessment and management of contaminated sites*, Perth, Western Australia.
8. Environmental Protection Authority (EPA) 2018, *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual*, Environmental Protection Authority, Perth, WA.

Appendix 1: Summary of Licence Holder's comments on draft amendment

Condition	Summary of Licence Holder's comment	Department's response
N/A	<p>Water Corporation acknowledges the amendments as set out in the draft Licence and offers no comment regarding these changes.</p> <p>As advised within the application documentation for Works Approval W6528/2021/1, Water Corporation are planning to divert flows away from the Bullsbrook WRRF and cease treating wastewater at the facility. Capital projects to divert flows away from the Bullsbrook WRRF, including construction of a new pressure main and pump station, are progressing however, recent unexpected finds under Section 18 of the <i>Aboriginal Heritage Act 1972</i> have delayed the delivery of critical sections of the proposed pressure main. Due to these delays the practical completion date for this project has been extended to late 2023, in turn delaying Water Corporation's proposed closure of the Bullsbrook WRRF.</p> <p>Given the need to continue treating wastewater at the Bullsbrook WRRF, Water Corporation request the date of the amended licence be extended by 12 months to allow completion of the diversion projects. There will be no increase in the volume of wastewater received at the facility or change to the volume or quality of treated wastewater currently discharged from the facility. Therefore, environmental risks associated with the facility will not change.</p>	<p>The Delegated Officer does not consider the operation of the facility for an additional 12 months to increase the potential emission and discharge risks from the premises. The licence expiry date will be changed to 16 October 2024.</p>
N/A	<p>In a subsequent email provided on 2 May 2022, the Licence Holder requested that the premises name be changed to <i>Bullsbrook Water Resource Recycling Facility</i>.</p>	<p>The Delegated Officer considers this request to be administrative in nature. The premises name will be updated to <i>Bullsbrook Water Resource Recycling Facility</i>.</p>