



Amendment Report

Licence Number	L6266/1991/10
Licence Holder	Water Corporation of Western Australia
File Number:	DER2014/00608
Premises	Broome South Sewage Facility 34 Clementson Street MINYIRR WA 6725 Lot 1639 on Plan 184761 and Lot 512 on Plan 409418 As defined by the map in Schedule 1 of this Licence
Date of Report	17/01/2020

1. Definitions and interpretation

Definitions

In this Amendment Report, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
AACR	Annual Audit Compliance Report
AER	Annual Environment Report
Amendment Report	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 JOONDALUP DC WA 6027 info@dwer.wa.gov.au
CS Act	<i>Contaminated Sites Act 2003</i> (WA)
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
Licence Holder	Water Corporation of Western Australia
m ³	cubic metres
Minister	the Minister responsible for the EP Act and associated regulations
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the Premises to which this Amendment Report applies, as specified at

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	the front of this Amendment Report.
Revised Licence	the amended Licence issued under Part V, Division 3 of the EP Act, with changes that correspond to the assessment outlined in this Amendment Report.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>
UDR	<i>Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)</i>

2. Licence Amendment

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend Licence L6266/1991/10 granted to the Water Corporation of Western Australia (the Licence Holder) for its Broome South Sewage Facility. This amendment is given under section 59B(9) of the EP Act upon the initiative of an Officer Delegated under section 20 of the EP Act.

The following guidance statements have informed the decision made on this amendment

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Decision Making (June 2019)*
- *Guideline: Industry Regulation Guide to Licensing (June 2019)*

3. Basis for the Amendment

On 4 December 2018, amended Licence L6266/1991/10 was issued to the Water Corporation of Western Australia (Licence Holder) for its Broome South Sewage Facility following a risk-based review conducted by the former Department of Environment Regulation (DER). The amended licence imposed requirements relating to the installation of low permeability liners at the tertiary and secondary treatment ponds to mitigate the infiltration of wastewater. This requirement was imposed on the basis that there was an extreme and unacceptable risk of seepage from the ponds to impact Roebuck Bay, an area of high conservation value, with cultural and ecological values of regional, national and international significance. The Premises is classified as 'contaminated' – remediation required' under the *Contaminated Sites Act 2003* (CS Act), due to contamination of groundwater.

Subsequent to the issue of amended Licence L6266/1991/10, appeals were lodged by the Licence Holder and Nyamba Buru Yawuru Ltd (third party appellant) in objection to the amendment of the Licence by the Department of Water and Environmental Regulation (DWER). Pursuant to section 106 of the *Environmental Protection Act 1986* (EP Act), the Minister obtained a report from the DWER on the matters raised in the appeals. The Minister also received a report from the Appeals Convenor, which sets out the background and other matters relevant to the appeals.

The Licence Holder's appeal raised concerns in relation to the requirement to install low permeability liners at the tertiary and secondary ponds, and the duration of the licence. The third party appellant, Nyamba Buru Yawuru, noted the significant values of Roebuck Bay, and sought for additional independent research and monitoring requirements to be included in the licence and for the results to be reported publicly.

DWER's risk-based assessment determined there was an 'extreme' risk for seepage from the Premises to impact the environmental receptors of Roebuck Bay. To address this risk, amended condition 6 required the tertiary and secondary ponds to have low permeability liners installed and the ponds commissioned by 31 October 2020 and 2021 respectively.

The Licence Holder considered DWER had overstated the potential for seepage emissions to impact Roebuck Bay, and disagreed with DWER's risk rating of 'extreme', submitting that a 'medium' risk rating was appropriate. Specifically Water Corporation challenged DWER's assessment of information relating to nutrient loads and attenuation, contamination remobilisation and distribution of seepage plumes and the potential impacts from the Premises to *Lyngbya majuscula* blooms and ecological receptors.

On the basis of Water Corporation's view about the level of risk, it requested that the requirements related to the lining of the ponds be removed from the Licence. In the event that this is not agreed, Water Corporation requested additional time to finalise the management plan required by condition 6(a), and for the time to install the liners (conditions 6(b) and 6(c)) be extended by one year.

DWER advised that the information Water Corporation provided in its appeal relating to seepage risk had previously been considered, and its position on risk remained unchanged. DWER also advised that a risk rating of 'medium' or higher, would still require the ponds to include low permeability liners.

Noting the significant values of Roebuck Bay, the Minister was of the view that it is appropriate for actions to be taken to ensure emissions from the Premises are properly contained. Based on DWER's risk assessment, the Minister also agreed that the lining of the tertiary and secondary ponds is appropriate. The Minister, however, allowed Water Corporation's appeal to the extent that condition 6(a) is modified to require that the plan be submitted within six months of the date of this decision, and to provide an opportunity for Water Corporation to put forward alternatives to lining that will fully control the risk identified by DWER. Should alternatives be identified, and they are satisfactory to DWER, it will be open to DWER to reflect any changes to the licence through a future amendment. The Minister also amended the time for compliance with conditions 6(b) and 6(c) by 12 months, such that the required liners are now to be installed by October 2021 and 2022 respectively.

In relation to Water Corporation's concerns that the installation of the liners may result in an increased risk to receptors in the short term, DWER advised that these risks were taken into account, and conditions applied to manage those risks. Regarding the use of the emergency ponds while any lining activities are undertaken, DWER considered that the short to mid-term increased likelihood of impact to receptors was acceptable in order to manage mid to long-term risks of seepage from the Premises.

The Minister considered that the requirements applied to the Premises, in particular the requirement to line or otherwise control seepage risks from the tertiary and secondary ponds, addresses the concerns raised by the third party appellant. In particular, the Minister accepted DWER's advice that the groundwater monitoring program required by the amended licence will identify whether any new pond liners or approved alternatives are operating effectively. In addition, the Minister noted there are investigations applying to the Premises under the CS Act, the outcomes of which will inform any additional actions that may be required to address past emissions.

On the concern raised by the third party appellant regarding the public availability of scientific information, the Minister noted that Water Corporation intends to consult with Nyamba Buru Yawuru in relation to this proposal, and he encouraged this information sharing to continue.

More generally, DWER referred to the availability of information through the *Freedom of Information Act 1992*, and there are information request mechanisms available under the CS Act, as outlined in the Appeals Convenor's report.

On the basis of the information presented, the Minister allowed the appeals to the extent that:

1. Condition 6(a) is amended by:
 - a) deleting '30 June 2019' and replacing it with a date which is six months from the date of this decision
 - b) inserting new text to provide the Water Corporation with an opportunity to submit a plan to DWER on alternatives to lining the tertiary and secondary ponds that will satisfactorily control the identified risks.
2. Condition 6(b) is amended by deleting '2020' and inserting '2021'.

3. Condition 6(c) is amended by deleting '2021' and inserting '2022'.

In addition to the above, the CEO has also taken the opportunity to correct any clerical mistakes and unintentional errors identified within the issued Licence.

4. Amendment history

Table 4 provides the amendment history for L6266/1991/10

Table 2: Licence amendments

Instrument	Issued	Amendment
L6266/1991/1-5	N/A	Historical versions of the Existing Licence
L6266/1991/6	22 September 2003	New Licence reissued, replaced Licence L6266/1991/5.
W3685/1991/1	23 December 2002	New works approval following application by the Licence Holder to reconfigure the existing sewage facility pond system and increase the sewage treatment capacity from 3,100 m ³ / day to 3,500 m ³ / day. Works included (source A877948): <ul style="list-style-type: none"> • Convert the southwest pond to be the primary pond and lined with High Density Polyethylene (HDPE); • Convert the south east and middle infiltration storage ponds to be the secondary and tertiary ponds; • Convert the northern treatment ponds into storage ponds
L6266/1991/7	5 October 2004	New Licence reissued, replaced Licence L6266/1991/6.
L6266/1991/8	31 October 2007	New Licence reissued, replaced Licence L6266/1991/7.
L6266/1991/9	1 November 2011	New short term Licence reissued, replaced Licence L6266/1991/8.
L6266/1991/10	29 December 2011	New Licence reissued, replaced Licence L6266/1991/9 and incorporated amendments including: <ul style="list-style-type: none"> • Condition 25: submission of a hydrogeological report by June 2013; and • Condition 27: submission of a nutrient irrigation management plan by June 2012.
L6266/1991/10	4 July 2013	Amended Licence, extending the submission date for Condition 25 from 31 June 2013 to 30 October 2013 and removing the conditions regarding the nutrient loading rate calculations and nutrient irrigation management plan that were due for submission by 30 June 2012.
L6266/1991/10	10 December 2015	Amended Licence granted following application by the Licence Holder dated 23 February 2015 to approve the testing of pH in the monitoring program at the Premises and not within a NATA accredited laboratory. Administrative updates were also implemented: <ul style="list-style-type: none"> • Condition 25 regarding submission of a hydrogeological report by June 2013 became Condition 23.

L6266/1991/10	16 June 2016	Amended Licence granted following application by the Licence Holder dated 17 May 2016 to approve works to increase the capacity of and install a new liner (permeability $\leq 2 \times 10^{-10}$ m/s) within pond E3 (being the Storage Pond in the Revised Licence) and subsequently redirect the flow of sewage through the sewage treatment facility infrastructure. Conditions included: <ul style="list-style-type: none"> • Conditions 12 and 24-28 were added regarding seepage management and reporting, including the submission of a Leakage Management Plan by 31 May 2018, being 6 months after the operation of the Storage Pond (previously pond E3) that commenced in November 2017 (see Section 6.3 of this Decision Report). • Condition 23 regarding submission of a hydrogeological report by June 2013 became Condition 30 (see Section 0 of this Decision Report).
L6266/1991/10	4 December 2018	Amended Licence issued following a risk-based review initiated by the Chief Executive Officer of the former Department of Environment Regulation (DER). The decision to undertake a risk-based review resulted from the identification of elevated concentrations of total phosphorus, total nitrogen and nitrogen species in groundwater monitoring bores located in the vicinity of the Premises and the adjacent treated sewage irrigation site, the Broome Golf Club.
L6266/1991/10	17 January 2020	Licence amendment to enact the Minister's determination on Appeal 28 of 2018. Licence amended to extend dates for works report submission and completion of works and to allow the submission of alternative proposals to lining of ponds.

5. Decision

This amendment is made pursuant to section 59(1)(j) of the EP Act, being an amendment to give effect to a decision of the Minister under the EP Act.

A copy of the Minister's Appeal Determination and Appeals Convenor's report can be obtained from the Appeals Convenor's website at www.appealsconvenor.wa.gov.au.

6. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a licence amendment will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

6.1. 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.

Condition No.	Proposed amendments
6(a)	Amended by deleting '30 June 2019' and replacing it with '19 May 2020'

6(b)	Amended by deleting '2020' and inserting '2021'.
6(c)	Amended by deleting '2021' and inserting '2022'
6(e)	<p>Additional text inserted:</p> <p>(iii) Should the Licence Holder wish to propose alternatives to lining the tertiary and secondary ponds that will satisfactorily control the identified risks to groundwater and Roebuck Bay, the Licence Holder should submit a plan by 31 May 2020 to DWER that includes details of the proposed alternatives, evidence of how the alternatives will address the risks and timeframes for completion of works which must be consistent with the dates identified in Condition 6 (b) and (c).</p>
9 (Table 4)	Specification (d) typo corrected

6.2 Licence Holder comments

The Licence Holder was provided with the draft amended Licence and draft Decision Report on 20 December 2019 for review and comment.

On 13 January 2020, the Licence Holder advised the Department that *"Following internal circulation, the Water Corporation has no further comments on the Broome licence L6266/1991/10 amendment"*.

Stephen Checker
A/SENIOR MANAGER WASTE INDUSTRIES
REGULATORY SERVICES

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

Appendix 1: Key documents

Document title	Availability
Licence L6266/1991/10 – Broome South Sewage Facility	accessed at www.dwer.wa.gov.au
Appeals Convenor, September 2019. <i>Report to the Minister for Environment – Broome South Sewage Facility, 34 Clementson Street, Minyirr, Shire of Broome. Appeal numbers 028.001-002 of 2018 - L6266/1991/10</i>	accessed at https://www.appealsconvenor.wa.gov.au
DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	accessed at www.dwer.wa.gov.au
DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	
DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	
DER, May 2016. <i>Guidance Statement: Publication of Annual Audit Compliance Reports</i> . Department of Environment Regulation, Perth.	
DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	
DER, September 2016. <i>Guidance Statement: Environmental Standards</i> . Department of Environment Regulation, Perth.	
DER, November 2016. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	
DWER, June 2019. <i>Guideline: Industry Regulation Guide to Licensing</i> . Department of Water and Environmental Regulation, Perth.	

Appendix 2: Appeal Determination



**Minister for Environment; Disability Services; Electoral Affairs
Deputy Leader of the Legislative Council**

Our Ref: 028/18

**DIRECTOR GENERAL
DEPARTMENT OF WATER AND ENVIRONMENTAL REGULATION**

**APPEALS AGAINST AMENDMENT OF LICENCE L6266/1991/10 – BROOME
SOUTH SEWAGE FACILITY, MINYIRR, SHIRE OF BROOME**

I received two appeals in objection to amendments made to the above licence by the Department of Water and Environmental Regulation. The appeals predominantly related to seepage and impacts to Roebuck Bay.

In summary I have allowed the appeals to the extent that:

1. Condition 6(a) is amended by:
 - a. deleting '30 June 2019' and replacing it with a date which is six months from the date of this decision
 - b. inserting new text to provide the Water Corporation with an opportunity to submit a plan to DWER on alternatives to lining the tertiary and secondary ponds that will satisfactorily control the identified risks.
2. Condition 6(b) is amended by deleting '2020' and inserting '2021'.
3. Condition 6(c) is amended by deleting '2021' and inserting '2022'.

I have dismissed all other grounds of the appeal. The full details of my decision will be communicated to you by the Appeals Convenor in due course.

Consistent with section 110 of the *Environmental Protection Act 1986*, it would be appreciated if you would arrange for my decision to be given effect as soon as practicable.

Hon Stephen Dawson MLC
MINISTER FOR ENVIRONMENT

19 NOV 2019

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