



## Department initiated Amendment

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

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<b>Licence Number</b>	L9169/2018/2
<b>Licence Holder</b>	Cleanaway Co Pty Ltd
<b>ACN</b>	127 853 561
<b>File Number</b>	DER2018/001491~6
<b>Premises</b>	Cleanaway Henderson 24 Stuart Drive HENDERSON WA 6166  Legal description – Lot 300 on Plan 23084 Certificate of Title Volume 2202 Folio 933 As defined in Schedule 1 Map 1 Premises map
<b>Date of Report</b>	06/10/2022
<b>Decision</b>	Revised licence granted

Abbie Crawford  
**A/MANAGER, WASTE INDUSTRIES  
INDUSTRY REGULATION**

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

## 1. Decision summary

The Delegated Officer has determined to make amendments to Licence L9169/2018/2. The amendments are administrative in nature therefore they do not alter the risk profile of the Premises, providing that activities, emissions and receptors as stated in existing approvals remain unchanged.

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 of Water and Environmental Regulation's (department; DWER) 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 delegated officer has considered and given due regard to the Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

### 2.2 Amendment summary

Licence L9169/2018/2 is held by Cleanaway Co Pty Ltd (Licence Holder) for Cleanaway Henderson (the Premises), located on Stuart Drive, Henderson.

DWER identified an administrative error in granted licence L9169/2018/2 dated 6 December 2021. This error relates to the unintentional removal of Schedule 3: Groundwater monitoring included in licence L9169/2018/1 (amended 9 March 2021). The department initiated an amendment to Licence L9169/2018/2 to correct this administrative error.

Following the submission of Annual Environmental Reports for 2020/21 and 2021/22, the department has also initiated amendments relating to groundwater monitoring.

### 2.3 Groundwater monitoring results

The Licence Holder provided DWER with an Annual Groundwater Report for the Premises on 29 July 2021 which documented groundwater monitoring events during August 2020 and February 2021.

On 28 July 2022, the Licence Holder provided DWER with another Annual Groundwater Report which documented groundwater monitoring events during August 2021 and February 2022. The groundwater monitoring event in August 2021 included laboratory analysis for perfluoroalkyl and polyfluoroalkyl substances (PFAS) in six groundwater monitoring wells at the Premises.

During February 2021 and August 2021, laboratory analysis was included for PFAS. Previous reporting provided to DWER for the Premises had not included analysis for PFAS.

### 2.3.1 PFAS monitoring results

The groundwater monitoring event in February 2021 included laboratory analysis for PFAS in five of the six groundwater monitoring wells at the Premises (BH3 was damaged). The February 2021 results were as follows:

- In total, 10 PFAS substances were detected in BH1 at a combined concentration of 3.36 µg/L.
- Of the substances detected in BH1:
  - The concentration of perfluorooctane sulfonic acid (PFOS) (0.24 µg/L) exceeded criteria for the 99% protection of freshwater aquatic ecosystems, as published in the *PFAS National Environmental Management Plan* (HEPA, 2020) (the PFAS NEMP); and
  - The sum of PFHxS and PFOS (1.28 µg/L) exceeded criteria for the protection of drinking water and the non-potable use of groundwater, as published in the *Guideline: Assessment and management of contaminated sites* (DWER, 2020).
  - Relevant assessment criteria are not available for the remaining substances.
- In BH4 and BH6, PFOS was also detected at concentrations (0.01 µg/L) exceeding criteria for the 99% protection of freshwater aquatic ecosystems, as published in the PFAS NEMP.
- In BH2 and BH5A, PFAS substances were not detected above the laboratory reporting limit.

The August 2021 results were as follows:

- In total, 9 PFAS substances were detected in BH1 at a combined concentration of 3.78 µg/L. Of those substances:
  - The concentration of (PFOS) (0.05 µg/L) exceeded criteria for the 99% protection of freshwater aquatic ecosystems, as published in the PFAS NEMP; and
  - The sum of PFHxS and PFOS (0.86 µg/L) exceeded criteria for the protection of drinking water and the non-potable use of groundwater, as published in the *Guideline: Assessment and management of contaminated sites* (DWER, 2020).
- PFAS substances were detected in BH2 and BH3A. Relevant assessment criteria are not available for these substances.
- PFAS substances were not detected above the laboratory reporting limit in BH4, BH5A or BH6.

### 2.3.2 Groundwater flow direction

In the 2020-2022 monitoring events, the groundwater monitoring direction varied between northerly and north-north-westerly. In earlier events (i.e. August 2018 and 2019) the groundwater gauging data appeared to indicate a broadly north-westerly flow direction but with some potential mounding around BH1 and BH6.

Groundwater monitoring bore BH1 had the highest concentrations of PFAS in both monitoring events. BH1 appears to be located on the up-or cross-hydraulic gradient site boundary, although the mounding present in some historical groundwater

monitoring events indicates the potential for variation in flow direction.

BH1 is also located adjacent to site infrastructure such as the quarantine area, undercover truck discharge bay and tank farm. When a groundwater monitoring bore is very close to a potential source of contamination it may be influenced by lateral diffusion.

### 2.3.3 Contaminated Sites Act 2003

As of 22 August 2022 the Premises had been not been reported as a known or suspected contaminated site and was awaiting classification under the *Contaminated Sites Act 2003* (CS Act).

### 2.3.4 Groundwater monitoring conditions

Condition 2, Table 1 of the license lists the types of liquid wastes authorised to be accepted onto the premises. These include the following waste types which may or may historically have included PFAS:

- industrial wash waters (controlled waste category L150)
- Fire wash waters (controlled waste category N140)
- PFAS contaminated water (controlled waste category M270). Acceptance limits apply for concentrations of PFOA, PFOS and PFHxS.

Considering the groundwater monitoring results described above in section 2.3.1, regulatory controls have been specified within the licence in relation to:

- Condition 6 and Schedule 3: Groundwater monitoring of ambient concentrations from the existing groundwater well network, including for PFAS.
- Condition 9: Groundwater monitoring to occur in accordance with the field quality assurance and quality control procedures as specified in Schedule B2 of the Assessment of Site Contamination NEPM.
- Condition 13: Groundwater monitoring annual reporting requirements.

Conditions 9 and 13 have been added due to the importance of quality assurance and quality control when collecting and analysing PFAS samples, as described in section 18.3 of the PFAS NEMP.

The inclusion of PFAS parameters in the groundwater monitoring conditions on the amended licence is not intended to investigate groundwater contamination associated with historical activities at the premises or satisfy potential investigative requirements under the CS Act. Rather, it is intended to assess and verify the integrity of waste containment infrastructure and operational practices at the premises.

The specific PFAS analytes listed in Schedule 3 of the amended licence are intended as primary indicators of the potential presence of a broad range of PFAS compounds. Further analysis and/or an increased sampling frequency may be required for other purposes, such as investigating groundwater contamination or satisfying potential future investigative requirements under the CS Act.

### 3. Consultation

The Licence Holder was provided with the draft Amendment Report on 22 August 2022. On 15 September 2022, the Licence Holder advised that they had no comments on the draft licence amendment.

### 4. Conclusion

The Delegated Officer has determined that an amended licence will be granted to correct the administrative error and to initiate amendments relating to groundwater monitoring.

#### 4.1 Summary of amendments

Condition no.	Proposed amendments
6	Change reference from requirements specified in Table 5 to requirements specified in Schedule 3.
9	Add a condition for quality assurance and quality control procedures in relation to monitoring.
12	Administrative change to clarify the date of submission for the Annual Audit Compliance Report.
13	Administrative change to clarify the date of submission for the Annual Audit Compliance Report.
13, Table 6	Add requirements for reporting on quality assurance and quality control procedures, consistent with changes to condition 9.
Definitions	Add definitions related to new conditions and/or to reflect updates to published guidance.
Schedule 1, Map 3	Map updated for readability and to reflect the current numbering of replacement groundwater wells.
Schedule 3, Table 9	Correct administrative error by restoring the groundwater monitoring table, consistent with the previous version of this licence.  Add PFAS analytes to the groundwater monitoring suite to assess and verify the integrity of waste containment infrastructure and operational practices at the premises, following the detection of PFAS in groundwater beneath the Premises.

### References

1. 360 environmental (2021), *2020-2021 Annual Groundwater Report – Henderson Facility*, West Leederville, Western Australia.
2. 360 environmental (2022), *2021-2022 Annual Groundwater Report – Henderson Facility*, West Leederville, Western Australia.
3. Department of Water and Environmental Regulation (DWER), issued Licence L9169/2018/1, Perth, Western Australia.
4. Department of Water and Environmental Regulation (DWER), issued Licence

L9169/2018/2, Perth, Western Australia.

5. Department of Water and Environmental Regulation (DWER) (2020) *Guideline: Assessment and management of contaminated sites*, Perth, Western Australia.
6. Heads of EPAs of Australia and New Zealand (HEPA) (2020), *PFAS National Environmental Management Plan Version 2.0*, Australia.