Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Licence Amendment

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

Licence Number	L8904/2015/1
Licence Holder	Cleanaway Solid Waste Pty Ltd
ACN	120 175 635
File Number	DWERVT16037
Application number	APP-0026710
Internal number	INS-0001921
Premises	Banksia Road Putrescible Landfill Banksia Road CROOKED BROOK WA 6236 Legal description – Part of Lot 2 on Deposited Plan 65861 As defined by the premises map provided in Schedule 1
Date of Report	15/10/2025
Decision	Revised licence granted

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1. Decision summary

Licence L8904/2015/1 is held by Cleanaway Solid Waste Pty Ltd (Licence Holder) for the Banksia Road Putrescible Landfill (the Premises), located at Lot 2 Banksia Road, Crooked brook in the Shire of Dardanup.

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 L8904/2015/1 has been granted.

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 9 December 2024, the Licence Holder applied to the department to amend Licence L8904/2015/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Include Cell 12A onto the operational Licence.

Following validation, a request for additional information in support of the amendment application as issued on 8 May 2025.

On 30 July 2025, the Licence Holder submitted a report titled *Banksia Road Landfill Cell 12A – Application for an Amendment to Licence L8904/2015/1 (APP-0026710) Cleanaway Solid Waste Pty Ltd Response to Request for Further Information* containing the required supporting information to enable public advertising.

This amendment is limited only to changes to Category 64 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Category 5 or 62 have been requested by the Licence Holder.

Table 1 below outlines the Licence Holder's proposed changes to the existing Licence to allow the ongoing operation of Cell 12A.

Table 1: Proposed design or throughput capacity changes

Category	Current design/throughput capacity	Proposed design/throughput capacity	Description of proposed amendment
Category 5: Processing or beneficiation of metallic or non-metallic ore: premises on which: (a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed; (b) tailings from metallic or non-metallic ore are reprocessed; or (c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	350,000 tonnes per annual period	350,000 tonnes per annual period	No change proposed
Category 61: Liquid waste facility - Premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated	3,000 tonnes per annual period	3,000 tonnes per annual period	No change proposed
Category 64: Class II or III putrescible landfill site: premises on which waste (as determined by reference to the waste type set out in the document entitled “Landfill Waste Classification and Waste Definitions 1996” published by the Chief Executive Officer and as amended from time to time) is accepted for burial.	350,000 tonnes per annual period	350,000 tonnes per annual period	No change proposed Amendment facilitates operation of infrastructure constructed under Works Approval W6855/2023/1 into the Licence.

Table 2 below sets out the Licence Holder's requested amendments to the conditions of Licence L8904/2015/1to facilitate the ongoing operation of Cell 12A.

Table 2: Proposed amendment to Licence L8904/2015/1 to operate Cell 12A

Condition number	Condition requirements	Proposed condition amendment
5, Table 4: Solid waste processing	The Licence Holder must ensure that the waste types specified in Table 4 are only subjected to the corresponding processes, subject to the corresponding process limits and/or specifications.	As outlined in Table 2 above, the corresponding waste processing table in Works Approval W6855/2023/1 (Table 11) has the following process limit/specification: (a) Only Contaminated solid waste that demonstrates compliance with the Acceptance Criteria for Class II landfills must be disposed of in the area of Cell 12A that overlaps Cell 1 or Cell 2. DWER has confirmed in correspondence that Class III waste can be accepted into the entirety of Cell 12A and, therefore, Cleanaway is requesting that the works approval specification is not included in the amended licence (no change to existing table)
Condition 10, Table 7: Solid waste containment infrastructure	The Licence Holder must ensure that the solid waste containment infrastructure specified in Table 7 meets or exceeds the specifications in Table 7 for the corresponding infrastructure.	• Table 7, Row 1, Column 1 – Infrastructure: Include Cell 12A. • Table 7, Row 3, Column 1 – Infrastructure: Include Cell 12A.
Condition 15(d) Landfill gas management infrastructure	The Licence Holder must: (d) install landfill gas extraction wells and collection infrastructure in Cell 8 and connect this infrastructure to the active landfill gas management system (flare) within 12 months of reaching final waste contours in these Cells.	Include Cell 12A.

Condition 20(e)(ii) Final capping	The Licence Holder must prepare and submit to the CEO by 31 March 2022, an updated Rehabilitation and Closure Plan for all Landfill Cells. The updated Rehabilitation and Closure Plan must include as a minimum: (e) A capping schedule that ensures that: (ii) Cells 7 and 8 are capped within 18 months of reaching final waste contours in each cell.	Include Cell 12A.
Table 28 Definitions	Active Landfill Area: An area defined as an active Special Waste Type 1 and 2 disposal areas, Cell 7, Cell 8 and any part of adjoining cells (excluding Cell 1 and Cell 2) where waste is required to be deposited to achieve final waste contours.	Include Cell 12A.
	New definition for Cell 12A	Means the cell marked as 'Cell 12A' in Figure 1, Schedule 1
Schedule 1, Figure 1: Premises map	The Premises is shown in the map below. The red line depicts the Premises boundary with excised extractive industries operations defined by the coordinates in Schedule 2	Include an updated Figure 1 in Schedule 1 that includes Cell 12A (refer to Appendix C for an updated Premises map).

In addition to the above, the Licence Holder has also proposed additional minor amendments to the licence set out in Table 3 below.

Table 3: Other proposed amendments to Licence L8904/2015/1

Condition number	Condition requirements	Proposed condition amendment
Condition 78 (now 79), Table 24, Row 2: Notification requirements	Details of any works proposed for the expansion of the landfill gas collection and management system as depicted in Plan 3 of Schedule 3 in the Licence, at least 6 months prior to any expansion occurring.	Request that this requirement is deleted. Conditions 14 and 15 of the licence provide the specifications for the landfill gas collection and management system and installation requirements for Cell 8 and Cell 12A (if amended as proposed in Table 3). The requirement to notify DWER at least six months ahead of any changes to the landfill gas collection and management system is not practical in that the design of any expansion of the system is carried out iteratively prior to installation and can change frequently due to many influencing factors. The current requirement presents an unnecessary administrative burden. Any significant changes to the system would require a licence amendment application, through which DWER would be able assess the potential environmental impact associated with the changes. Should DWER require regular updates on the progress and expansion of the system, Condition 75 (Table 23, Row 5) of the licence already requires the Annual Environment Report to contain a summary of landfill gas collection and management system, including infrastructure installed during the reporting year and a map of the spatial coverage of the system.
Condition 86 (now 87) Construction works – Landfill gas flare station	The Licence Holder must not commission or operate the infrastructure or equipment required by condition 83 until the Environmental Compliance Report specified in condition 84 has been submitted.	Request that the restriction for no commissioning to occur until the Environmental Compliance Report (ECR) required by condition 84 has been submitted be deleted. The ECR (as per condition 85) must confirm that the gas infrastructure has been constructed in accordance with, and has met, the design and construction/installation requirements specified in condition 83 (Table 26). Some of these requirements need the infrastructure to be 'commissioned' (i.e., connected) to demonstrate that they have been met, e.g., no leakage of gas. This is relevant to the installation of the gas collection infrastructure (gas transfer pipelines, laterals and headers) which is an ongoing activity and not a discrete, one-off event.
Figure 2: Groundwater monitoring well map	Map depicting well locations to be monitored in accordance with condition 68	The Licence Holder has provided an updated map depicting the location of installed rather than targeted monitoring well locations.

2.3 Part IV of the EP Act

2.3.1 Ministerial statement No: MS 1213, EPA Report No: EPA Report 1747

The Ministerial Statement (MS) provided conditions at the Premises relating to the maximum extent or range for development envelope, development height, net greenhouse gas emissions, and project life for landfill Cells 12A, 9, and 10 at the Premises.

A Compliance Assessment Plan (CAP) as required by Condition D2-5 and D2-6 of Ministerial Statement 1213 was submitted to the department on 12 June 2024, in which the Licence Holder confirmed its intent to limit development height to 130 m (top of waste at 128 m). Further, as set out in the revised Banksia Road rehabilitation and Closure Plan (V10.1 (July 2025)), the maximum height of the final top of waste contours will be RL 130 mAHD (prior to settlement); which aligns with the topography of the adjacent State Forest.

2.4 Critical Containment Infrastructure

A Critical Containment Infrastructure Report (CCIR) was previously submitted by the Licence Holder to demonstrate compliance with conditions 2, 4, 5, 6, 9 and 10 of Works Approval W6855/2023/1.

Works Approval W6855/2023/1 approves the construction and time limited operation of Landfill Cells 9, 10, and 12A, being the next three landfill cells which the Licence Holder will progressively develop: Cell 12A being the first of the three cells to be constructed. Ian Watkins of IW Projects was appointed by the Licence Holder to undertake the necessary review and inspections associated with the construction activities and to provide the compliance certification and reporting for submission to the department. Ian Watkins was also the designer of Cells 9, 10, and 12A.

Works Approval W6855/2023/1 required the Licence Holder to provide compliance certification and critical containment infrastructure reporting from a suitably qualified civil engineer, confirming each item of infrastructure or component of infrastructure had been constructed in accordance with the requirements specified within the Works Approval, albeit with some minor departures from requirements. Specifically:

- Truncation of the cell to accommodate gas pipes,
- The southeast corner and southern edge of the cell was raised to ensure no waste in the underlying old cells was intercepted during excavation works,
- Deeper excavation of the leachate collection sump, and
- Changes in leachate extraction pipe diameter.

The northern and western cell perimeter bunds were brought in by 10 m to accommodate gas pipes located on the outside of the new cell. Consequently, the height of the perimeter bunds was increased by 2.5 m to suit the cell top of waste filling plan. These changes reduced the side of the overall landfill cell.

Following review of the Cell 12A design, the southeast corner and southern edge of the cell was raised to ensure that no deposited waste was intercepted during excavation works. Consequently, to maintain the original 1 (V) in 3 (H) side slope, the southern earthworks batter was extended further into Cell 12A, which again reduced the size of the cell.

At the Leachate Collection Sump, an additional 300 mm was excavated due to the soft material of the subgrade. Leachate Collection Sump batter was maintained at 1 in 3 after the major floor adjustment excluding a gradual transition.

The leachate extraction riser pipes were changed from the approved 355 mm diameter to 450 mm diameter to facilitate easier access to the sump when inserting the leachate pump.

Consequently, the concrete headwall structure was made slightly larger to accommodate the larger pipe diameters.

The construction of Cell 12A at the Premises was documented and verified by Terra Firma Laboratories, serving as the CQA Consultant. The inspection and documentation processes demonstrated adherence to the project's Works Approval, technical specifications, and the CQA Plan approved by the department.

The department reviewed the CCIR and determined that the provided information met the construction requirements of Cell 12A and confirms compliance with conditions of the works approval W6855/2023/1.

On 24 June 2025, works approval W6855/2023/1 was amended to extend the approved period limed operations for the cell through to 1 October 2025 to allow for the finalisation of this licence amendment.

2.5 Groundwater well construction report

A Groundwater monitoring well construction report was previously submitted by the Licence Holder to demonstrate compliance with conditions 11 and 12 of Works Approval W6855/2023/1.

The department reviewed this report and determined that the provided information met the construction requirements for the groundwater monitoring wells and confirmed compliance with the conditions of the works approval W6855/2023/1.

The groundwater bore monitoring network and groundwater monitoring carried out as per the works approval and licence have been designed to ascertain whether the integrity of the lining system is being maintained by detecting contaminants linked to plumes of landfill leachate. To date, no leaks have been detected in the lining system.

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 pathways during premises operation which have been considered in this Amendment Report are detailed in Table 4 below. Table 4 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 4: Licence Holder controls

Emission	Sources	Potential pathways	Proposed or existing emissions controls at the Premises
Dust	Acceptance and burial of approved waste types	Air/windborne pathway	Application of collected leachate or collected stormwater as dust suppressant within an active, lined landfilling area. Application of dust suppressant products to landfill batters. Restricted vehicle speeds. Deployment of water carts over unmade trafficable areas. Wheel wash for vehicles leaving the Premises.
Noise	Acceptance and burial of approved waste types	Air/windborne pathway	Physical separation from sensitive receptors. All vehicles entering the Premises and within the Licence Holders control must be fitted with broadband reversing alarms.
Leachate	Waste decomposition and degradation within cells. Leaking leachate storage and conveyance infrastructure. Overtopping of leachate storage ponds.	Seepage to soil and groundwater	Established liner systems. Established leachate collection systems. Placement of daily cove to reduce leachate volumes generated. Premise bore network for potential leachate plume management.
Potentially contaminated stormwater	Interaction between the waste mass and stormwater	Seepage to soil and groundwater	Bunds diverting stormwater away from tipping face.
Odour	Putrescible waste within cells.	Air/windborne pathway	Physical separation from sensitive receptors. active tipping area limited to an area no greater than 1,800 m^2, or to two areas no greater than 1,800 m^2 each. Placement of interim and daily cover material.
Windblown waste/litter	Uncovered waste material	Air/windborne pathway	Placement of interim and daily cover material. Portable litter control screens used the downwind of the working face of the landfill. Litter control nets. Perimeter chain wire fencing.

Emission	Sources	Potential pathways	Proposed or existing emissions controls at the Premises
Vector borne pathogens	Vermin/pest proliferation within the waste mass.	Animal vectors	Placement of interim and daily cover material.
Asbestos fibres	Acceptance and burial of asbestos and ACM	Air/windborne pathway	Asbestos (Special Waste Type 1) must only be disposed of by burial to the active Special Waste Disposal Area (not approved for burial in Cell 12A) Placement of interim and daily cover material. Asbestos waste must not be deposited within 2 m of the final waste profile.
Waste mass	Failure of landfill cell wall	Seepage to soil and groundwater	Cell construction.
Smoke	Fire within the waste mass	Air/windborne pathway	Implementation of DFES endorsed fire management plan. Placement of interim and daily cover material.
Fire washwaters	Firefighting activity within the footprint of landfill cells	Seepage to soil and groundwater	Leachate collection infrastructure. Bunds.

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 5 below provides a summary of potential human and environmental receptors that may be impacted because of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental siting* (DWER 2020)).

Table 5: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
Residential Premises	• 0.54 km south of the southwest corner of the Premises, separated by the Dardanup Conservation Park. • 0.92 km due west of the Premises. • 1 km west southwest of the southwest corner of the Premises. • 1.2 km southwest of the southwest corner of the Premises. • 1.5 km due south of the Premises, separated by the Dardanup Conservation Park and Boyanup State Forest. • 1.5 km northwest of the northwest corner of the Premises. • 1.5 km northeast of the northeast corner of the Premises, separated by the Dardanup Conservation Park and Boyanup State Forest. • 1.75 km east northeast from the eastern boundary of the Premises separated by the Dardanup Conservation Park and Boyanup State Forest.
Dardanup Aeromodellers Society, 270 Panizza Rd, Crooked Brook	Approximately 1.3 km north of northern Premises boundary.
Environmental receptors	**Distance from prescribed activity**
Dardanup Conservation Park	Adjacent to southern and eastern boundaries of the Premises
Boyanup State Forest	Approximately 0.7 km south, and 1 km east of the Premises.
Priority Ecological Community (PEC) – Dardanup Jarrah and Mountain Marri woodland on laterite (P1)	Three occurrences of this PEC occur within the Dardanup Conservation Park. The closest occurrence is mapped within 15 m of the Premises eastern boundary
Priority Ecological Community/Threatened Ecological Community (TEC) – Banksia Dominated Woodlands of the Swan Coastal Plain	An occurrence of this PEC/TEC is mapped adjacent to the southern boundary of the Premises, and to the west of the premises on the opposite side of Banksia Road.
Geomorphic wetland: Multiple use Palusplain and Dampland (flat, seasonally waterlogged)	Approximately 400 m southwest through to the northwest of the Premises boundary.

Crooked Brook (significant stream)	Located approximately 1100 m south/southwest of the Premises boundary flowing in a generally east/west direction. Crooked Brook flows into Preston River approximately 5km downstream.
Preston River	Approximately 5 km west of the Premises. Groundwater from the superficial aquifer discharges into the Preston River.
Groundwater	It is understood that the superficial aquifer is present within the Yoganup geological formation between 20 m to 30 m below ground level. It is also possible that further isolated perched aquifers occur under the Premises 15 – 20 m below ground level. The permanent, confined Leederville aquifer has been encountered at the site between 35 mbgl and 40 mbgl Groundwater flows in a northwest direction.
Beneficial users of groundwater	Approximately 41 bores are located within 3 km of the Premises. Water abstracted from these bores are used for such purposes as: • Stock watering. • Dairy purposes. • Irrigation of pasture. • Domestic use.
Dardanup Water Reserve	The Priority 1 groundwater protection zone for Dardanup Water Reserve is located approximately 2.5 km northwest of the Premises.
Priority Flora	• Priority 3 flora species – adjacent to the southeast corner of the Premises and approximately 180 m south of the Premises. • Priority 4 flora species - approximately 160 m east of the Premises.
Fauna - Baudin's black cockatoo (*Zanda baudinii*), Carnaby's black cockatoo (*Zanda latirostris*) and the forest red-tailed black-cockatoo (*Calyptorhynchus banksii naso*)	The remaining vegetation on the eastern side of the Premises contains areas of potential black cockatoo breeding habitat as well as foraging and roosting habitat.

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 considers 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 Holders' controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 6.

The revised licence L8904/2015/1 that accompanies this amendment report authorises emissions associated with the operation of the premises i.e. operation of Class III putrescible landfill cells, tailings storage, and liquid waste facility.

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

Table 6. Risk assessment of potential emissions and discharges from the Premises operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Acceptance and burial of approved waste types	Noise	Air/windborne pathway causing impacts to health and amenity	Residential receptors	Refer to Section 5.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 36	N/A
	Dust	Air/windborne pathway causing impacts to health and amenity	Residential receptors	Refer to Section 5.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 28, 31, 32	N/A
	Windblown waste/litter	Air/windborne pathway causing impacts to visual amenity	Residential receptors. Users of the Dardanup Conservation Park adjacent to the southern and eastern premises boundaries.	Refer to Section 5.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 42, 43, 44, and 45	N/A
	Vector borne pathogens	Biological pathway causing impacts to amenity and health	Residential receptors. Users of the Dardanup Conservation Park adjacent to the southern and eastern premises boundaries.	Refer to Section 5.1	C = Minor L = Rare **Low Risk**	Y	Condition 19, 50, and 51	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Acceptance and burial of asbestos and ACM	Asbestos fibres	Air/windborne pathway causing impacts to health	Residential receptors.	Refer to Section 5.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1, 5, 19, 34, 35, and 71	N/A
Decomposition and breakdown of buried wastes	Landfill leachate	Infiltration through soil profile to groundwater, movement through groundwater, and abstraction of groundwater with health impacts on groundwater consumers and impacts on groundwater usage. Direct exposure (skin contact and/or inhalation) via irrigation/ spraying and wind-drift.	Beneficial users of groundwater (including future users) Residential receptors and Users of the Dardanup Conservation Park adjacent to the southern and eastern premises boundaries.	Refer to Section 5.1	C= Minor L = Possible **Medium Risk**	Y	Condition 12, 61, 62, 79, and 80	N/A
	Landfill gas	Air/wind dispersion, lateral migration of landfill gas through the soil profile, and passive venting to air with potential impacts on vegetation health and building safety.	Residential receptors. Dardanup Conservation Park	Refer to Section 5.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 14 and 15	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Stormwater saturation of unburied waste	Contaminated stormwater runoff	Overland flow and infiltration through soil profile with health impacts on groundwater consumers and impacts on groundwater usage.	Beneficial users of groundwater (including future users)	Refer to Section 5.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 14, 15, and 19	N/A
Cell wall failure	Decomposed waste, leachate	Direct discharge of decomposing waste to land due to failure in cell wall stability Infiltration through soil profile to groundwater, and movement through groundwater with health impacts on groundwater consumers and impacts on groundwater usage.	Beneficial users of groundwater (including future users)	Refer to Section 5.1	C = Moderate L = Rare **Medium Risk**	Y	Condition 60, 80, and 82	N/A
Waste fire	Smoke	Air/windborne pathway causing impacts to health and amenity	Residential receptors.	Refer to Section 5.1	C = Minor L = Possible **Medium Risk**	Y	Condition 46, 47, 48, and 49	N/A

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
	Fire washwater	Infiltration through soil profile to groundwater, movement through groundwater, and abstraction of groundwater by bore owners.	Beneficial users of groundwater (including future users)	Refer to Section 5.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 46, 47, 48, and 49	N/A
Failure of leachate conveyance and containment infrastructure	Landfill leachate	Infiltration through soil profile to groundwater, movement through groundwater, and abstraction of groundwater with health impacts on groundwater consumers and impacts on groundwater usage.	Beneficial users of groundwater (including future users)	Refer to Section 5.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 12, 61, 62, 79, and 80	N/A

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 underlined text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 7 provides a summary of the consultation undertaken by the department.

Table 7: Consultation

Consultation method	Comments received	Delegated Officer response
Application advertised on the department's website (13/092025)	No comments received	N/A
Shire of Dardanup advised of proposal (13/092025)	No comments received	N/A
Dardanup Environmental Action Group (DEAG) advised of proposal (13/092025)	Submission received 03/09/2025 (Refer to Appendix 1- submission 2)	Refer to Appendix 1
Registered Banksia Road Putrescible Landfill stakeholders advised of proposal on (13/092025)	Refer to Appendix 1	Refer to Appendix 1
Licence Holder was provided with draft amendment on (08/10/2025)	Comment received 09/10/2025: *Cleanaway would like to waive the consultation period and request the Licence to be issued as soon as possible*	Noted.

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 8 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 8: Summary of licence amendments

Condition no.[1]	Proposed amendments
Condition 10, Table 7: Solid waste containment infrastructure	Amended to include Cell 12A. • Table 7, Row 1, Column 1 – Infrastructure: Include Cell 12A. • Table 7, Row 3, Column 1 – Infrastructure: Include Cell 12A.

Condition 15(d) Landfill gas management infrastructure	Amended to include Cell 12A.
Condition 20(e)(ii) Final capping	Amended to include Cell 12A.
Table 28 Definitions	Active Landfill Area definition amended to include Cell 12A.
	New definition for Cell 12A included
Schedule 1, Figure 1: Premises map	Updated Figure 1 in Schedule 1 that includes Cell 12A.
Schedule 1, Figure 2: Groundwater monitoring well map	Updated Figure 2 in Schedule 1 depicting groundwater monitoring well locations within premises.
Condition 78, (79) Table 24, Row 2: Notification requirements	Requirement that the details of any works proposed for the expansion of the landfill gas collection and management system as depicted in Plan 3 of Schedule 3 in the Licence, at least 6 months prior to any expansion occurring deleted.
Condition 86(87) *Construction works – Landfill gas flare station*	Restriction for no commissioning to occur until the Environmental Compliance Report (ECR) required by condition 84 has been submitted deleted.

Note 1: Both condition numbers specified in application and in existing licence provided.

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 stakeholder comments on amendment application

Comment	Summary of stakeholder comment	Delegated Officer response
Submission 1 (DWER-801164602-437034 and DWER801164602-437033)		
1	***DOCUMENTED NON-COMPLIANCE WITH LICENCE CONDITIONS*** *The applicant's own Critical Containment Infrastructure Report explicitly admits to non-compliance with Works Approval conditions* *Condition Breach - Aggregate Installation Timeline:* *• Page 17: "Installation must be completed within 2 weeks of the installation of any GCL"* *• Admitted non-compliance: "there were small areas that took longer to cover (up to four weeks)"* *• Applicant's response: "This condition was not fully complied with"* *This breach is particularly concerning as geosynthetic clay liner (GCL) performance depends on controlled moisture content. Extended exposure compromises liner integrity - a critical component for preventing groundwater contamination.*	The stakeholder is referring to the conditions of Works Approval W6855/2023/1. In undertaking a review of compliance with construction requirements specified in works approval W6855/2023/1, the Delegated Officer considered compliance and quality assurance documentation submitted in accordance with works approval condition requirements. These documents were prepared on behalf of the licence holder by a Civil Engineer and a specialist Waste Management Consultant. Submitted documentation outlined where there were minor departures from the Works Approval specifications, however the Delegated Officer considered that these were adequately justified. The department has reviewed and accepted the engineer verification and justification provided that these departures did not impact integrity of the infrastructure. Section 3.5 of the Stage 3 Construction Quality Assurance Validation Report confirms that most of the lined area was covered with aggregate within two weeks; however, there were small areas that took longer to cover (up to four weeks). The department considers that the delay in aggregate installation was unavoidable and would have minimal impact on the GCL hydration, and consequently permeability, as the soil base consisted of low permeability clay, which would have only slowly released moisture to hydrate the GCL. It should be noted that minor deviations from construction condition requirements due to operational limitations during construction activities are common across industries licenced by the department. The department will consider the infrastructure to have been constructed in a sufficient manner where minor deviations are assessed as not diminishing environmental performance of the infrastructure. As stated in the application supporting documentation, these changes were minor in nature and did not diminish the environmental performance of Cell 12A

Comment	Summary of stakeholder comment	Delegated Officer response
2	***CONSTRUCTION SHORTCUTS AND DESIGN CHANGES*** *Multiple unauthorised design changes were implemented during construction indicating lack of certainty over actual design and approval:* ▪ *Cell Size Reductions:* ▪ *Infrastructure Changes:* ▪ *Pattern of Commercial Expedience Over Regulatory Compliance*	Refer to Delegated Officer response to comment 1.
3	***INADEQUATE LINER SYSTEM AND CONTAINMENT CONCERNS*** *Liner Coverage Issues:* • *20m piggyback liner extension over existing Cells 1 & 2* • *Complex tie-in arrangements with existing compromised infrastructure* • *Reliance on anchor trench systems for containment* *Research Evidence on Liner Failure: Current research confirms that landfill liners "fail over time" and leachate "leaks out of the landfill and seeps into groundwater – contaminating wells and waterbodies". Initial leakage from lined landfills occurs from "point sources--holes, tears, imperfections--in the liner system" producing contaminated groundwater plumes.*	The Department has considered construction specifications, the stability assessment, and a peer review of construction specifications and stability in conducting the risk assessment for the construction of Cell 12A under the original works approval assessment for Cell 12A. Controls in place for the management of leachate have also been considered. The Delegated Officer has reviewed compliance and quality assurance documentation submitted to support the construction of Cell 12A and determined that the provided information meets the construction requirements within works approval W6855/2023/1 and as such, cell 12A is suitable for Class III waste acceptance. Please refer to the decision report accompanying works approval W6855/2023/1 for the full risk assessment into the suitability of cell 12A's design.

Comment	Summary of stakeholder comment	Delegated Officer response
4	***GROUNDWATER MONITORING INADEQUACIES*** *Limited Monitoring Network:* • *limited monitoring wells for a complex hydrogeological environment* • *Wells targeting "perched groundwater layers may be low yielding in groundwater" (SLR Report, p.5)* • *Some wells may be "dry" limiting effective monitoring capability* *Hydrogeological Complexity:* • *Site exhibits "complex" geology with "lens' of sandy clays and clayey sands"* • *Multiple aquifer layers requiring different monitoring approaches* • *"Interbedded lens' of clayey sand and sandy clay" creating preferential flow paths*	Potential emissions to groundwater, groundwater monitoring infrastructure and regimes have been considered in DWER's previous risk assessments for amendments to the premises licence where groundwater has been identified as a receptor. The setting of conditions surrounding the groundwater monitoring network and parameter suite has been informed by expert internal hydrogeological advice. The adequacy of the groundwater monitoring network was reviewed under the assessment of works approval W6855/2023/1. As a result, the groundwater network was expanded to ensure that any potential emissions from the operation of Cell 12A would be detected. As such, the groundwater monitoring network at the premises is considered suitable to detect potential emissions. Please refer to the decision report accompanying works approval W6855/2023/1 for the full risk assessment into the suitability of the groundwater monitoring network at the premises for the operation of new landfill cells.
5	***ENVIRONMENTAL RISK FACTORS*** *Leachate Contamination Potential: Leachate contains "volatile organic compounds, chloride, nitrogen, solvents, phenols, and heavy metals" that pose serious environmental and health risks.* *Water Supply Threats: Groundwater supplies drinking water to large portion of the local residents, making protection of this resource critical for community health.*	This risk of leachate impacting groundwater has been assessment through previous amendments to the Licence, in particular the amendment to facilitate the acceptance of Special Waste Type 3 to the premises, which was granted on 23 April 2025. LandSim Modelling submitted to support that amendment application was reviewed by the department, along with results from groundwater and leachate monitoring undertaken at the premises to date. Results indicate that there is insufficient evidence to suggest that the landfill operations have impacted the underlying groundwater aquifer. Please refer to the amendment report to the licence which details the risk assessment surrounding leachate impacts. The groundwater monitoring network at the premises was reviewed and expanded under works approval W6855/2023/1. The Delegated Officer considers that the current bore network is adequate for the required monitoring of potential emissions to groundwater that may arise from ongoing landfilling operations.

Comment	Summary of stakeholder comment	Delegated Officer response
6	***OPERATIONAL FAILURES*** ***Dust Management Failures:*** • *Two dust complaints received during construction (2/3/24 & 3/4/24)* • *No specific measures addressing Cell 12A construction impacts* • *Poor weather condition management during construction* ***Quality Assurance Issues:*** • *CQA validation reports identify multiple "minor repairs" without detailed documentation* • *Weld repair register referenced but not provided* • *Limited transparency in construction quality control*	Emissions associated with the construction phase were assed under Works Approval W6855/2023/1. These emissions will not continue as part of the ongoing operation of Cell 12A. Regarding quality assurance, refer to Delegated Officer response to comment 1.
7	*Undersized Infrastructure: If pipes can now handle significantly more leachate flow, but storage capacity remains the same, could the system become hydraulically unbalanced.*	Leachate storage infrastructure has been designed to accommodate calculated volumes expected to be generated within the landfill cells. The diameter of the conveyance pipework will have no bearing on the volumes generated and collected for storage.
8	*Overflow Risk: Higher flow rates into unchanged storage could lead to overflow events during peak leachate generation periods*	Refer to Delegated Officer response to comment 7.
9	*Incomplete Design Assessment: The change appears to focus only on pump access convenience, not on system hydraulic performance.*	The application relates to the ongoing operation of the approved landfill Cell 12A, with no material changes which would impact the premises risk profile. As detailed in the response to comment 1, a specialist Civil Engineer has provided assurance that the reported departures from works approval design specifications do not impact integrity of the infrastructure. Further, improved accessibility to the pump will help mitigate potential impacts stemming from potential pump failures or scheduled replacement issues.
10	*Unassessed environmental risks = reduced confidence in overall system performance*	Refer to Delegated Officer response to comment 9

Comment	Summary of stakeholder comment	Delegated Officer response
Submission 2 (DWER-801164602441988 – DWER-801164602-441987)		
1	*We note that it is stated that the application is in relation to Category 64 putrescible landfilling activities only. Whilst we acknowledge this, we would also like to make you aware that in recent times it has become increasingly difficult to determine just what parts of the Licence relate just to Landfilling, which just to Tronox Tailings and those which apply to both. There appears to be significant inconsistencies with this delineation from one Decision Report to the next.*	The scope of the proposed amendment is set out within the application documentation, included specific condition wording changes. This is also reflected in Sections 2.2 and 5.1 of this amendment report.
2	*CONDITION 18 AND 23:* *What was audited to justify compliance should be accepted? Was the contaminated waste certificates validity audited/ were the weighbridge operators trained to recognise and interpret the validity of the certificates? How many loads were refused in the auditing time period? Have the records been sighted by DWER?*	The annual audit compliance report (AACR) and annual environmental report (AER) submitted by the Licence Holder for the 2024 annual period to satisfy the conditions of the licence was reviewed by the department. These submissions included a rejected waste register and a submission detailing the weighbridge tonnages of various approved wastes accepted at the premises. Further, an inspection undertaken by Assurance staff on 9 June 2025 determined that the premises was operating was in accordance with licence conditions. During this inspection, copies of laboratory results accompanying contaminated solids wastes received at the premises for burial. The Licence Holder requires that copies of testing results are provided prior to the transportation of Class III contaminated waste to the premises (any waste suspected to exceed Class II acceptance criteria to be tested)

Comment	Summary of stakeholder comment	Delegated Officer response
3	*CONDITION 20 AND 24:* *The water monitoring results from the new bores only confirms that the bores have been correctly installed and can be sampled/monitored as required.* *How big would a leak need to be to detect contamination within 2 or 3 months of the Cell receiving its first waste? There is no way a lack of contamination in the new bores can be considered proof that the liner system contains no leaks.* *With the overall groundwater results from pre-existing bores now detecting PFAS and rising nitrogen levels, it has to be considered likely that there IS significant LEAKAGE from the operating cells.*	Commentary is outside the scope of the proposed licence amendment, which is limited to the ongoing operation of Cell 12A. However, as part of previous risk assessments, the Delegated Officer has identified that the results from groundwater and leachate monitoring data undertaken to date indicate that there is insufficient evidence to suggest that the landfill operations have impacted the underlying groundwater aquifer. Please refer to Delegated Officer response to comment 5. The groundwater monitoring network at the premises was reviewed and upgraded under works approval W6855/2023/1. It was a requirement of W6855/2023/1 that a leak detection survey of the cell be undertaken after placement of the leachate aggregate layer and before the placement of the separation geotextile; the required leak detection survey was conducted by Terre Firma Laboratories. Upon identification of leaks in the lining system, the lining contractor promptly repaired the identified leaks, and Terra Firma re-surveyed those areas to ensure all issues were adequately addressed. Additionally, vacuum box testing had been performed to verify the integrity of the welds, confirming that all repairs met the required standards. No leaks have subsequently been detected in the lining system.
4	*CONDITION 22:* *Restrictions on Class III Waste being deposited over Cells 1 and 2 DEAG note with concern that DWER further advised that "The placement of Class II waste over the footprint of Cells 1 and 2 is an operation control imposed by Cleanaway, which we have carried across to Time limited Operations conditions within the works approval.* *However, as we consider that the Class III cell can accept Class III waste, there would be no obligation for Cleanaway to provide us with any information as to where Class II waste is being deposited, or any testing data to confirm this."* *The Dardanup Community feel strongly about this due to Cells 1 & 2 only having earthen liners. The social Licence for the Landfill is already tenuous, DWER need to keep faith with the community and support this rare initiative from Cleanaway*	Cells 1 and 2 have been capped and are overlain by the Class III liner system installed as part of the construction of Cell 12A. The Cell 12A was designed with a piggyback liner that will provide a preferred flow path for leachate generated from the deposition waste in Cell 12A. In this regard, leachate will drain to the north and enter the lined Cell 12A leachate collection system and will be prevented from percolating through Cells 1 and 2. As an additional control, the works approval holder proposed to refrain from putting Class III waste into cell 12A over the piggyback liner area, to ensure leachate generated from Class III waste does not enter the clay-lined cells. However, the Delegated Officer has no objection to permitting Class III waste disposal into Cell 12A as Cell 12A is a Class III cell and controls in place are adequate to manage leachate emissions during ongoing operations.

Comment	Summary of stakeholder comment	Delegated Officer response
5	*CONDITION 25:* *If the evidence is accepted and reporting done after the time limited operations are completed not 30 days before the expiration of the works approval, does this mean that operations could still be carried out after the expiration of the time limited operations?*	The ongoing operation of Cell 12A is what is requested as part of this proposed licence amendment. As detailed in the departments Guide to Licensing, it is not the intention of this condition to require the cessation of waste acceptance. Rather, the report would inform the Delegated Officers of any operation issues which would necessitate an amendment to the operational licence conditions.
6	*CONDITION 27:* *Has the Leachate Plan actually been implemented – if so, when?* *Has the Leachate Plan been maintained? i.e. has it been updated to include Cell 12A and flows been recalculated from/to the new cells?*	The ongoing implementation of the leachate plan is a requirement of the operational licence. An updated Leachate Management Plan (LMP) reflecting changes to the premises has been submitted by the Licence Holder to replace the LMP previously submitted in accordance with licence conditions.
7	*SECTION 4: CHANGES TO THE DESIGN OF CELL 12A* *Concern that the changes around bund locations and heights may have impacted the side slopes. Will these still be consistent with the Ministers Appeal Determination 009-23?* *Have the changes to the diameter of the riser pipes and deepening of the Leachate Collection Sump been picked up in the Leachate Plan?*	The minor design changes implemented to accommodate on-site circumstances that deviated from the construction conditions in Works Approval W6855/2023/1 did not impact the environmental performance of Cell 12A and are not at odds with the amendment necessitated by Ministers Appeal Determination 009-23.
8	*CONDITIONS 16 & 17: WATER BALANCE ASSESSMENT* *These require that the Works Approval holder must within 60 calendar days of the submission of the Critical Containment Infrastructure Report required by condition 9, submit to the CEO a water balance for the primary leachate pond and leachate evaporation ponds 1, 2 and 3 (leachate evaporation ponds) as depicted in Figure 1 of Schedule 1.* *We see no evidence that this has been completed despite the CCIR being dated 1 Aug 2024*	A Water/Leachate Balance Assessment was previously submitted to meet the requirements of conditions 16 and 17 of works approval W6855/2023/1. The Water Balance Assessment relates to the primary leachate pond and leachate evaporation ponds 1, 2 and 3, which manage leachate from nine existing landfill cells and will also manage leachate from the future landfill cells 12A, 9 and 10 to which W6855/2023/1 relates. An updated Leachate Management Plan (LMP) reflecting changes to the premises was also submitted by the Licence Holder to replace the LMP previously submitted in accordance with licence conditions.

Comment	Summary of stakeholder comment	Delegated Officer response
9	*NOISE EMISSIONS* *In approving the Works Approval, the Delegated Officer reported that operating hours are stated in the Planning Approval (is this suggesting that DWER considers excessive noise OK during operating hours?) and noted that the applicant is required to submit a Noise Management Plan to Shire of Dardanup as a condition of the JDAP outcome.* *Has DWER consulted with the Shire of Dardanup to confirm that the requirements of the JDAP decision regarding a noise management plan been met?*	The department refers all applications relating to the premises to the local government for comment. Requirements under the premises Planning Approval are a local government matter and outside of the departments regulatory scope.
10	*Why not take the opportunity to pause for a moment, consider all of the raft of changes currently proposed and anticipated, how they fit (or don't fit) with each other, along with the other changes and additions made to the Licence over the past 2 years, and clean it up, remove the ambiguities, and maybe future proof it.*	The scope of the amendment is limited to the amendment of conditions which will facilitate the ongoing operation of landfill Cell 12A. Redundant licence conditions may be removed as part of a future CEO initiated licence review.
11	*(in relation to the submitted amended updated Rehabilitation and Closure Plan) Will the outcomes of this, or any changes to Conditions required by this update be incorporated in this Amendment, or will it be the focus of yet another Licence Amendment. How will this "new" filling schedule align with the construction and commissioning and filling schedules for Cells 9 & 10 approved in Works Approval WA6855-2023-1? Will an amendment to the Works Approval also be required? Or perchance will the Licence and Works Approval need to be amended again and again in the near future?*	This matter was addressed as part of the preceding licence amendment (APP-0029361). Please refer to the amendment report accompanying this amendment, which was granted on 19 September 2025. Any material changes to proposed staging and capping works will necessitate amendments to the relevant works approval and operating licence.
12	*How is the Rehabilitation and Closure Plan approval maintained?*	The department will assess submitted plans to ensure that the Licence Holder has prepared them in accordance with the requirements specified in the relevant condition. Submitted plans will then be implemented by the licence holder and maintained in their current form, unless updates are required as a result of changes to premises operations.