



Department initiated 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-0028995
Premises	<p>Banksia Road Putrescible Landfill</p> <p>Banksia Road</p> <p>CROOKED BROOK WA 6236</p> <p>Legal description –</p> <p>Lot 2 on Deposited Plan 65861</p> <p>As defined by the coordinates in Schedule 2 of the Revised Licence</p>
Date of Report	8 July 2025
Proposed Decision	Revised licence granted

MANAGER WASTE INDUSTRIES

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

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1. Decision summary

1.1 Giving effect to Minister's appeal determination – 048/21

On 26 October 2023, the Minister for Environment; Climate Action (the Minister) made a determination on a third-party appeal (Appeal number 48 of 2021) against the grant of a Licence amendment dated 28 October 2021 following a Licence review for the Banksia Road Putrescible Landfill facility.

The Minister received five appeals objecting to the conditions within the amendment Licence. Broadly, the key concerns of the appellants were for the Licence to include additional controls, monitoring and reporting requirements in relation to the following matters:

- The acceptance and storage of titanium dioxide tailings at the landfill;
- Potential for impacts to groundwater from the putrescible waste landfill and tailings;
- Management of noise and dust emissions;
- Potential for impact to nearby conservation areas; and
- Management of fires, erosion and complaints.

In making the determination the Minister allowed in part the appeals to the extent that the Licence be amended as follows:

- The inclusion of additional monitoring for titanium dioxide tailings and groundwater to ensure that the Department of Water and Environmental Regulation (DWER) can fully assess the ongoing effectiveness of the existing infrastructure and landfill management, which will include monitoring key radionuclides concentrations in the tailings and monitoring of additional groundwater parameters; and
- The inclusion of an additional condition requiring the accepted leachate plan for the premises be implemented; and
- Conditions relating to monitoring, management and reporting of fires and feral animals/pests, compliance monitoring and addressing and responding to complaints should be improved.

On 12 December 2024, the DWER amended Licence L894/2015/1 to give effect to the Ministers appeal determination 048/21. However, in doing so the Delegated Officer encountered difficulties in implementing the following required licence amendments:

- Condition 48 (tailings) is amended to also require monitoring of titanium, iron, chromium (III), potassium, chloride, sulphate, pH, electrical conductivity, calcium, magnesium, sodium, bicarbonate, uranium, thorium (elemental concentrations mg/L), radium-226 and radium-228 (radionuclide concentrations Bq/L). Threshold concentrations to be nominated for solids, and radioactivity concentrations for radionuclides radium-226 and radium-228.

At the time of the amendment, appropriate threshold concentration values and radioactivity concentration values had not been determined as there is no available Western Australian guidance to inform the setting of risk-based and informed values for incorporation into the Licence. Consequently, DWER undertook investigations to determine what these values should be and what available guidance should be relied on in setting appropriate values. The Delegated Officer initiated consultation with the Radiological Council of Western Australia, DWER's Contaminated Sites Branch, the Licence Holder (for obtaining characterisation data for the titanium dioxide tailing received to the premises), and other government agencies to determine what appropriate values can be set for the above listed parameters.

Table 1 below sets out the appropriate values determined for each of the identified titanium

dioxide tailings chemical parameters.

Table 1: Determined chemical parameter values for titanium dioxide tailings.

Chemical Parameter	Proposed Threshold Concentration Level
Titanium	3.7 mg/L
Iron	15.6 mg/L
Chromium (III)	5 mg/L
Potassium	89 mg/L
Chloride	38,198 mg/L
Sulfate	4,300 mg/L
pH	5.0 – 9.0
Electrical conductivity	66 dS/m
Calcium	13,354 mg/L
Magnesium	1,381 mg/L
Sodium	6,503 mg/L
Bicarbonate	6,503 mg/L
Uranium	0.043 mg/L
Thorium	0.01 mg/L
Radium-226	21 Bq/L
Radium-228	8 Bq/L

On the basis of the above, changes have been made to align Licence conditions with the Minister's determination in accordance with Section 110 of the *Environmental Protection Act 1986* (EP Act). These changes are summarised in Table 2.

Additionally, the Licence Holder has requested an extension to the submission date for the Fire and Emergency Management Plan (condition 46) for the premises, which was initially required for development as a part of this Ministers appeal determination, and which was implemented onto the licence on 12 December 2024. The Department considers this extension appropriate to ensure that the Licence Holder can adequately address the requirements of the condition.

As the amendment is given effect to an appeal determination, no further risk assessment to justify these changes is required/provided within this Amendment Report.

1.2 Giving effect to Minister's appeal determination - 009/23

On 13 November 2024, the Minister for Environment; Climate Action (the Minister) made a determination on a third-party appeal (Appeal number 009 of 2023 [009-23]) against the grant of a Licence amendment dated 27 February 2023 for the Banksia Road Putrescible Landfill facility.

The amended licence authorised the construction of a landfill cap for the first rehabilitation stages for the landfill. The landfill cap was designed to safely encapsulate the waste, prevent infiltration of rainfall and support rehabilitation. Infrastructure works for leachate recirculation within the landfill cells were also authorised as part of the amended licence.

The Minister received four appeals objecting to the conditions within the amendment Licence. Broadly, appellants sought for the licence to include additional controls and monitoring requirements, to ensure the long-term success of the landfill capping and rehabilitation process, in relation to the following matters:

- Ensuring installation and performance of the cap meets acceptable standards
- Erosion risks for the cap
- Risk from leachate recirculation and landfill gas on the cap
- Impact of rainfall events and stormwater on the cap
- Effectiveness of the cap's vegetated cover and potential dust emissions.

Appellants were also concerned about future liability in the event of a landfill cap failure pre or post-closure: noting the landfill is projected to operate beyond 2050.

Matters raised by appellants unrelated to the conditions of the amended licence were also noted in the Appeals Committee's (the Committee) report.

In making the determination, the Minister allowed in part the appeals to the extent that the conditions of the Licence be amended as follows:

- Require the licence holder to complete regular inspections of the integrity of landfill cap and related infrastructure, with remedial works undertaken where issues arise.
- Require the licence holder to conduct a trial to select instrumentation to monitor strains within the geosynthetic liner interfaces and to monitor pore pressures/ saturation within the landfill cap.
- Ensure the landfill gas collection and management system is designed, installed and operated to mitigate the risk of landfill gas accumulation under the landfill cap.
- Require the licence holder provide to the Department evidence of adequate financial provisions for unplanned and planned closure as part of its next revision of the Landfill Rehabilitation and Closure Plan.
- Require the licence holder to undertake quarterly monitoring and management of the vegetative cover including dust suppression where required.
- Require the licence holder to monitor the boundary with the adjacent conservation park to manage potential weed or invasive plant dispersal from capping rehabilitation.
- Submit construction specifications and Construction Quality Assurance (CQA) plans for future approved rehabilitation stages 2 and 5. This includes requiring slope stability analyses be completed for these future stages with the maximum allowed slope gradients and lengths documented in the licence condition.
- Provide a summary of all monitoring and inspection programs and any remedial actions completed for the landfill cap, vegetative cover, and leachate reticulation systems in the Annual Environmental Report.

Changes have been made to align Licence conditions with the Minister's determination in accordance with Section 110 of the *Environmental Protection Act 1986* (EP Act). These changes are summarised in Table 2.

As the amendment is given effect to an appeal determination, no further risk assessment to justify these changes is required/provided within this Amendment Report.

2. Consultation

The Licence Holder was provided with the draft Amendment Report and Amended Licence on 12 May 2025.

The Licence Holder has raised concerns with the feasibility of implementing conditions required by the Minister's determination on Appeal 009/23, specifically relating to the monitoring of strains within the geosynthetic liner interfaces and to monitor pore pressures/ saturation within the landfill cap. Comments provided by the Licence Holder submitted on the 12 June 2025 and 19 June 2025 have been considered by the Delegated Officer in determining final condition wording for the implementation of the Ministers determinations to ensure that condition requirements can be met by the Licence Holder.

The Licence Holder has also made representations that proposed condition 21 should be altered to better reflect the staging of capping activities which will be undertaken over landfill cells once they are filled. However, the licence holder has independently submitted a separate application to amend the licence conditions relating to approved capping works across stages 2, 3, 4, and 5. The amendment application package included as a supporting document an updated Rehabilitation and Closure Plan for all landfill cells. This plan will be assessed against amended condition 20 as part of application assessment. In view of this, the Delegated officer has determined that the condition will be amended as directed by the Ministers determination, and the correction of outdated capping details will be undertaken as part of a future licence amendment. It should be noted that updates to the capping stage references will be administrative in nature and will not affect material capping design nor the intent of the Ministers determination on capping conditions.

As a result of consultation between the Department and the Licence Holder, the 30 June 2025 submission date for the updated Rehabilitation and Closure Plan for all Landfill Cells required under revised condition 20 has passed. Accordingly, the Delegated Officer has extended this date to 31 July 2025 to ensure condition requirements can be met by the Licence Holder.

3. 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.

3.1 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.

It should be noted that on the back of interim licence amendments and the requirement to insert additional conditions, the amended condition numbering deviates from those set out in the Appeals Committee Report to the Minister for Environment.

Table 2: Summary of Licence amendments

Condition no.	Proposed amendments
Cover page	DWER file and application numbers amended to current versions.
Amendments made under Ministers Determination 048/21	

Condition no.	Proposed amendments
Condition 46	31 July 2025 submission date for updated Fire Management Plan (FMP) extended to 31 August 2025 at request of licence holder. This is to allow time for an update of the bushfire management plan as well as finalisation of a new fire management plan.
Condition 56, Table 15	Insertion of additional parameters for the monitoring to verify contaminant levels in titanium dioxide tailings and associated threshold concentrations.
Condition 75, Table 23	Insertion of requirement to include a comparison of monitoring results obtained for outlined parameters to verify contaminant levels in titanium dioxide tailings against associated threshold concentration values within the annual environmental report.
Amendments made under Ministers Determination 009/23	
Condition 10, Table 7	Additional row added (Row 4) which sets out specifications for the capped landfill cells.
Condition 14, Table 10	Additional specification added to Row 5, <i>landfill gas flare</i> .
Condition 20	Condition amended to remove references to require the submission of an updated Rehabilitation and Closure Plan for all Landfill Cells, in which all references to the phytocap performance trial on Cell 5 are removed, and Construction and Quality Assurance plans and specifications for rehabilitation stages 2 and 5.
Condition 21	New condition inserted requiring licence holder to submit evidence of adequate financial provisions for unplanned and planned closure of the landfill to the CEO by 31 July 2025.
Condition 23 - 25	New conditions requiring quarterly visual inspections of capped cells to identify any bare patches in excess of four square metres and any naturally recruited native or exotic tree species which are not suitable species for cap revegetation, and the undertaking of remedial revegetation maintenance works.
Condition 31	Condition amended to require ongoing dust suppression measures across any unvegetated or partially vegetated areas of the capping layer.
Condition 49	Condition amended to require quarterly inspections of the premises conservation park boundary to detect and remove weeds or wind-spread invasive plants.
Condition 75, Table 23	Table of AER requirements updated to insert requirements for details of any documented and remediated closed cell cap deficiencies and revegetation issues identified during scheduled inspections to be provided.
Condition 79, Table 25	Row 1 typo corrected and additional Design and construction / installation requirements for capping inserted.

Condition no.	Proposed amendments
Condition 82	New condition requiring the submission of a feasibility study for the monitoring of strains on liner interfaces, pore pressures and saturations in the capping layers for capping undertaken in Stages 2 and 5.
N/A Schedule 1	Insertion of Plans 9, 10, and 11