Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Works Approval Amendment

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

Works Approval Number	W2908/2025/1
Works Approval Holder	Veolia Recycling & Recovery (Perth) Pty Ltd
ACN	118 828 872
Application number	APP-0031890
Premises	North Bannister Resource Recovery Park 6264 Albany Highway NORTH BANNISTER WA 6390 Legal description - Lot 2 on Deposited Plan 2767
Date of Report	27 January 2026
Decision	Revised works approval granted

Table of Contents

1. Decision summary

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 construction and operation of the premises.

The delegated officer has granted revised works approval W2908/2025/1.

Previous decision or amendment reports relating to the works approval will remain on the Department of Water and Environmental Regulation (the department) website for future reference and will act as a record of the delegated officer's decision making.

2. Scope of assessment

2.1 Regulatory framework

In amending the works approval, the department has considered and given due regard to its regulatory framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Amendment summary

Veolia Recycling & Recovery (Perth) Pty Ltd holds licence L8871/2014/2 for the operation of the North Bannister Resource Recovery Park (the premises), located at 6264 Albany Highway, North Bannister. On 16 July 2025 the department granted a works approval (W2908/2025/1) to Veolia Recycling & Recovery (Perth) Pty Ltd (works approval holder) for the construction of an additional landfill cell (Cell 7) at the premises. The premises relates to the category and the assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987 (*EP Regulations) which are defined in works approval W2908/2025/1.

On 14 October 2025 the works approval holder applied to amend works approval W2908/2025/1 under section 59B of the *Environmental Protection Act 1986* (EP Act). The amendment is limited to the modification of the extent of the leachate drainage layer up the landfill cell wall. Previously it was indicated the drainage layer would be installed up to a height of 357 m RL, however it is proposed to modify it to 2 m vertically from the cell floor up the cell walls. All other aspects of the original design remain unchanged, with the purpose of collecting and conveying leachate generated within Cell 7 to the designated sump for extraction and treatment.

On 5 December 2025 the works approval holder queried the HDPE geomembrane testing requirements specified within the issued works approval. It was noted that Table 3 required oven ageing and oxidative induction time during conformance quality assurance testing, however advised this requirement is only for LLDPE geomembranes which are not proposed for installation in this project therefore have requested the requirement be deleted. The works approval holder advised testing of oxidation induction time for HDPE during conformance quality assurance testing will still occur, as required by the Victoria's Environmental Protection Authority (EPA) *Best Practice Environmental Management: Siting, Design, Operation and Rehabilitation of Landfills 2015* (BPEM Guidelines).

This amendment maintains the previously assessed design capacity which continues to apply under the revised works approval for category 64 without any changes. Table 1 below outlines the approved design capacity.

Table 1: Approved premises design capacity

Prescribed premises category description	Approved design capacity
Category 64: Class II or III putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the Landfill Waste Classification and Waste Definitions 1996, is accepted for burial.	400,000 tonnes per annual period

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 construction and operation which have been considered in this amendment report are detailed in Table 2 below. The control measures the works approval holder has proposed to assist in controlling these emissions, where necessary are also detailed in Table 2.

Table 2: Proposed works approval holder controls

Sources	Emission	Potential pathways	Proposed controls
Operation			
Leachate	Waste acceptance and handling, disposal of waste, decomposition of wastes, tipping, application of landfill cover and vehicle movements	Infiltration into groundwater	Leachate drainage layer to extend up the side slopes to a height of 2 m vertically above the cell base. Two primary leachate collection pipes. The proposed final design meets the criteria within the Victorian EPA and NSW Landfill Guidelines, including: • 300mm aggregate drainage layer. • Primary and secondary pipe network (225mm and 160mm OD HDPE). • 1-3% base slope. • Collection sump. • Testing of oxidation induction time for HDPE during conformance quality assurance testing. Leachate extraction system, including primary and secondary side risers, submersible pumps, solid HDPE pipe rising main to the centralised leachate pond system. Landfill leachate evaporation pond system, consisting of four ponds with a combined operational capacity of 45 ML and a combination of both mechanical and floating evaporators. These ponds are lined with a composite, geosynthetic lining system. Ongoing monitoring in accordance with the Leachate Management Procedure. Progressive landfill capping and restoration.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the delegated officer has excluded employees, visitors and contractors from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Potential human and environmental receptors that may be impacted as a result of activities upon, or emissions and discharges from the prescribed premises are identified in Table 3 and Figure 1, in accordance with the *Guideline: Environmental siting* (DWER 2020).

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
Residential premises	3 km east of the premises boundary
Commercial premises	Located to the immediate east of the premises
Transient receptors (walkers/track users of Bibbulmun Track)	Located immediately adjacent a section of the northern and western boundary of Lot 2.
Environmental receptors	**Distance from prescribed activity**
Serpentine Dam Catchment Area - Priority 2 Public Drinking Water Source Area	Within premises boundary. Note: Landfill footprint is situated outside the Serpentine Dam Catchment Area.
Serpentine Dam Catchment Area – Priority 1 Public Drinking Water Source Area	Directly adjacent to northern premises boundary.
Bannister River	Within premises boundary. Non-perennial watercourse flowing south-east through the premises. Constructed dams have been established along its course to hold water onsite. Flows to the Murray River, which discharges to Peel-Harvey Estuary.
Serpentine River	Non-perennial tributary located adjacent to northern premises boundary. A constructed dam has been built to retain surface water onsite. Premises is situated outside catchment area. Main river channel is located 3.4km north-west of the premises boundary. Ultimately discharges to Peel-Harvey Estuary via the Serpentine River.
Groundwater	Premises is situated atop groundwater resource area – Karri, Karri, Combined – Fractured Rock West - Alluvium The depth to groundwater varies across the premises ranging from 1.5 to 20.5 meters below ground level (mbgl) (319 to 345 mAHD). Well and borehole drilling indicates the presence of an unsaturated zone between the landfill liner and groundwater.
Native remnant vegetation and native fauna habitat	Adjacent to the landfill footprint
Dwellingup State Forrest	Directly adjacent to the northern and western premises boundaries.
Beelaring Class C Nature Reserve	Directly adjacent to the northern and western premises boundaries.

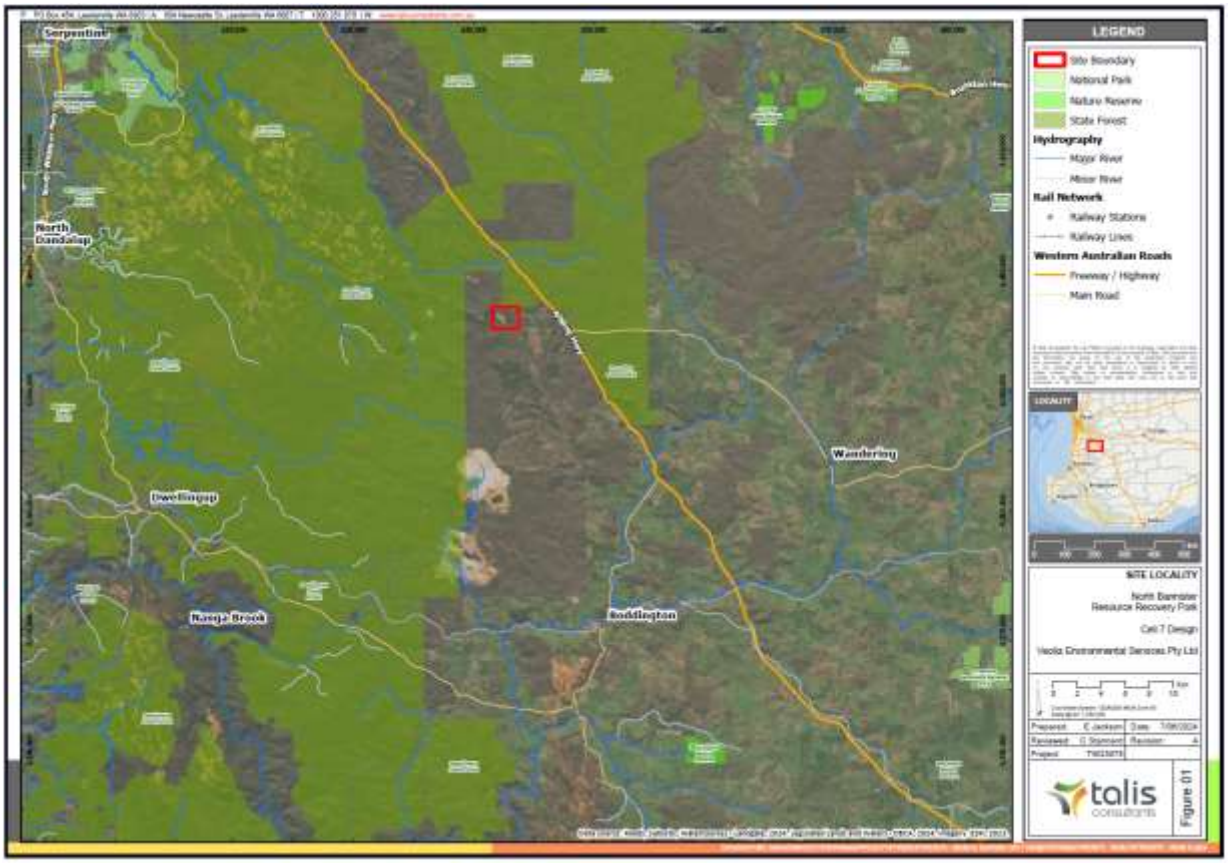

Figure 1: Premises location

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 works approval 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 works approval holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the works approval holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The revised works approval W2908/2025/1 that accompanies this amendment report authorises construction and time-limited operations. The conditions in the revised works approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises. A risk assessment for the operational phase has been included in this amendment report, however licence conditions will not be finalised until the department assesses the licence application.

Table 4. Risk assessment of potential emissions and discharges from the premises during operation

Risk events					Risk rating[1] C = consequence L = likelihood	Works approval holder's controls sufficient?	Conditions[2] of works approval	Justification for regulatory controls
Sources / activities	**Potential emissions**	**Potential pathways and impact**	**Receptors**	**Works approval holder's controls**				
Operation (including time-limited-operations operations)								
Waste acceptance and handling, disposal of waste, decomposition of wastes, tipping, application of landfill cover and vehicle movements Collection, storage and management of leachate Ongoing management of premises	Leachate	Infiltration into groundwater causing contamination and impacting water quality	Native vegetation and native fauna habitat Serpentine Dam Catchment Area Bannister River Serpentine River Dwellingup State Forrest Beelaring Class C Nature Reserve	Refer to Section 3.1	C = Major L = Unlikely **Medium Risk**	Yes	Condition 1, 2, 3, 4, 5, 6, 8, 9	The delegated officer considers that the proposed modified leachate drainage layer height, installation of a second primary leachate collection pipe and removal for the requirement conduct oven ageing and oxidative induction time during conformance quality assurance testing continues to meet the design criteria for the system ensuring the final design of cell 7 is consistent with the specification expected for Class III landfill cells. The delegated officer notes the following aspects remain consistent with the original leachate drainage design: • The hydraulic conductivity of the HDPE landfill liner must achieve a value of $1x10^{-9}$ m/s or less in order to retain leachate; • The geocomposite clay liner, HDPE geomembrane and cushion/protection layer are all subject to CQA requirements; • A separation distance between the base of landfill and groundwater will be maintained; and • The existing infrastructure is able to manage the leachate generated from the construction and operation of Cell 7 within the existing four pond system over the modelled 5-year worst-case period without the leachate ponds overtopping. The delegated officer notes that a further leachate pond is approved for construction at the premises. Although the current leachate generation and volumes are manageable, the further approved leachate pond provides additional leachate storage provision should it be required in the future. The delegated officer therefore considers the risk to receptors from leachate impacts to be acceptable subject to the proposed landfill design and construction requirements.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed works approval holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Works approval holder was provided with draft documents on 22/12/2025.	The works approval holder provided comments on the draft documents on 22/02/2026 querying that the length of the time limited operations phase does not appear to be defined in the works approval.	The standard condition defining the duration of time limited operations was omitted from the original works approval. The delegated officer has incorporated this condition as part of the amendment.

5. Conclusion

Based on the assessment in this amendment report, the delegated officer has determined that a revised works approval W2908/2025/1 will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 6 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 works approval as part of the amendment process.

Table 6: Summary of works approval amendments

Condition	Amendments
Condition 1 Table 1	Row 7: Layer 4- Leachate collection system. Amendment to remove reference to Figure 2 for construction requirements. Amendment to the leachate collection pipework requirements, whereby two primary collection pipes are required, not one. Amendment to the leachate drainage aggregate, whereby it must extend up the side slopes to a height of 2 m vertically above the cell base.
Condition 3 Table 3	Deletion of the property ‘oven ageing and oxidative induction time’, and the standards and minimum value related to that property. To complement the amendment to condition 3, Table 3 the requirement for oxidation induction time (OIT) has been clarified to include two sub-properties requiring Conformance Quality Assurance testing for either standard OIT at a minimum value of 100 min, or high pressure OIT at a minimum value of 400 min.
Condition 8	Addition of the standard condition authorising the duration of time limited operations.
Condition 9 Table 5	To complement the amendment to condition 1, Table 5 dot point 2 has been amended to include “and 2 m vertically up” the side of cell 7.
Definitions Table	Addition of a definition for AS 1289.3.1.1, AS 1289.3.3.1, AS 1289.3.6.3, ASTM D1603, ASTM D5397, ASTM D8117 and CBR for clarity. Correct the definition for critical containment infrastructure to read ‘means the items of infrastructure listed in condition 1’.

Condition	Amendments
Schedule 1 Figure 7 Figure8	Figures updated as requested by the applicant.

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.