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	L8422/2010/2
Licence Holder	Edna May Operations Pty Ltd
ACN	136 365 001
Application Number	APP-0026179
Premises	Edna May Gold Project Warrachuppin Road WESTONIA WA 6423 Legal description – Within mining tenements M77/88, M77/110, M77/124, G77/122 and L77/18
Date of Report	10 June 2025
Decision	Revised licence granted

Christine Pustkuchen

Digitally signed by Christine Pustkuchen

MANAGER, RESOURCE INDUSTRIES

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

Table of Contents

1. Decision summary 1
2. Scope of assessment 1
2.1 Regulatory framework 1
2.2 Application summary 1
2.3 Proposed activities 2
2.3.1 Landfill trench design and management 2
3. Risk assessment 3
3.1 Source-pathways and receptors 3
3.1.1 Emissions and controls 3
3.1.2 Receptors 5
3.2 Risk ratings 7
4. Consultation 10
5. Conclusion 12
5.1 Summary of amendments 12
References 13

Table 1: Proposed throughput capacity changes 1
Table 2: Licence holder controls 3
Table 3: Sensitive human and environmental receptors and distance from prescribed activity 5
Table 4. Risk assessment of potential emissions and discharges from the premises during construction and operation 7
Table 5: Consultation 10
Table 6: Summary of licence amendments 12

Figure 1: Proposed new landfill areas (highlighted in yellow) 2

1. Decision summary

Licence L8422/2010/2 is held by Edna May Operations Pty Ltd (licence holder) for the Edna May Gold Project (the premises), located at within the mining tenements M77/77, M77/110, M77/124, G77/122 and L77/18, Westonia WA.

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. As a result of this assessment, revised licence L8422/2010/2 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 October 2024, the licence holder submitted an application to the department to amend licence L8422/2010/2 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Inclusion of additional Class II landfilling areas on waste dumps around the premises to accommodate waste that cannot be recycled or taken off site; and
- Expansion of the existing category 64 landfill facility to accommodate the burial of used tyres.

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, 6 and 61 have been requested by the licence holder.

Table 1 below outlines the proposed changes to the existing licence.

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
Category 64: Class II putrescible landfill site	Existing: 5,000 tonnes per annual period	Up to 49,999 tonnes per annual period	Construction: Inclusion of additional Class II landfilling areas on waste dumps around the premises to accommodate waste that cannot be recycled or taken off site. Expansion of existing landfill facility to accommodate the burial of used tyres. Operation Increase throughput of combined waste buried in new and existing cells up to 49,999 tonnes per annual period.

2.3 Proposed activities

The licence holder is seeking approval to expand landfilling on the premises by constructing new landfill areas and increasing the current authorised annual throughput for managing waste from decommissioning of the premises. New landfilling areas are proposed within the historic Tailing Storage Facility (TSF) area, on top of the Southern Waste Rock Landform (Southern WRL), Northern WRL and unused sections of the Edna May TSF. The licence holder is also proposing to expand the current landfilling area to the north-northwest and southeast of the current extent (Figure 1).

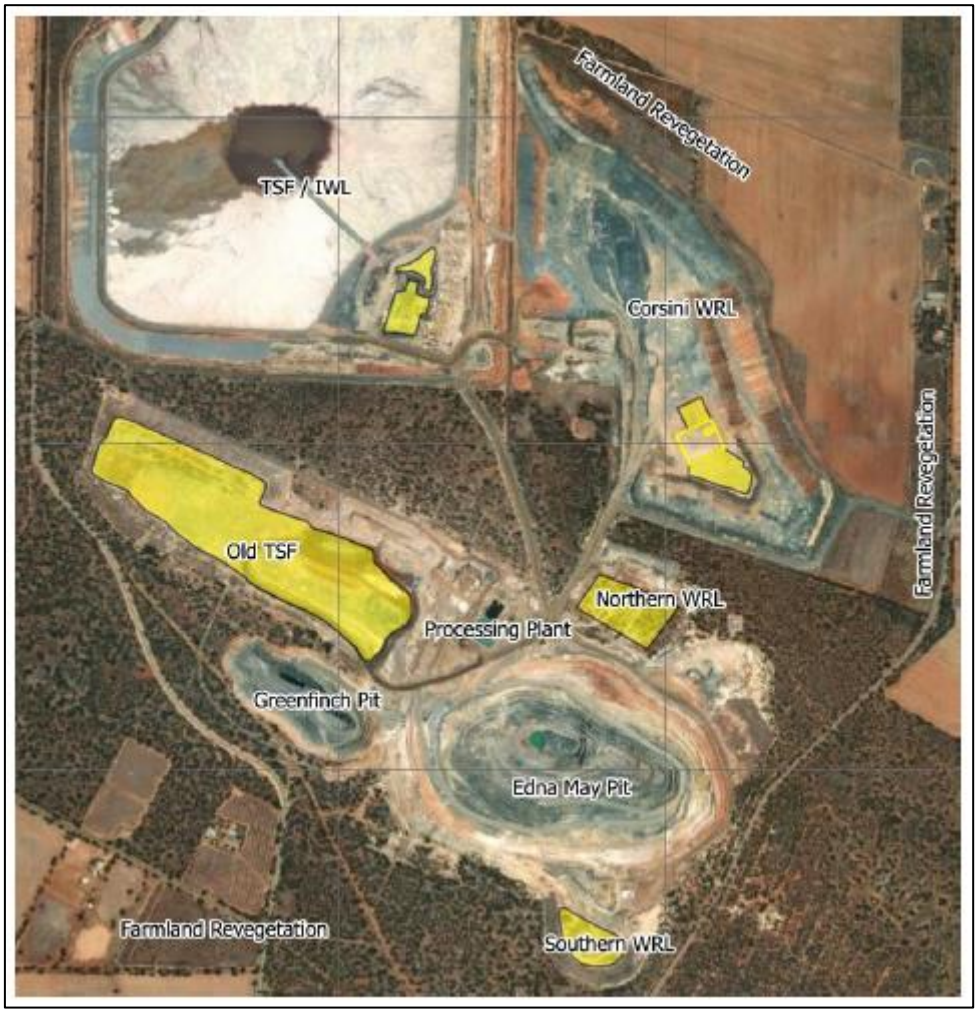

Figure 1: Proposed new landfill areas (highlighted in yellow)

The licence holder has stated that the intention is not to use the entire proposed area but instead have multiple disposal area options for flexibility. The existing landfill area will continue to be used for the burial of general and putrescible waste with the new locations being used to dispose of only large solid waste. The proposed plan is to primarily bury waste in the current Run of Mine (ROM) and historic TSF with the additional landfill areas proposed to be used only on an as needed basis.

2.3.1 Landfill trench design and management

Landfill trenches will be constructed as needed and gradually rehabilitated as closure progresses. Each trench is proposed to be approximately 13 m wide and 2 m deep with an 8 m wide ramp and 37° side slopes. Waste will be filled and covered progressively from the rear of the trench.

The licence holder estimates that no more than five trenches will be required for the disposal of all existing waste and waste that is generated during closure. The volume of waste expected to be disposed at each site will be less than 5,000 tonnes except at the Old TSF area, which is expected to receive more than 5,000 tonnes but not more than 50,000 tonnes.

Waste types proposed to be buried on site include:

- Putrescible waste;
- Inert waste type 2 – used tyres;
- Solid waste – from mill decommissioning; and
- Scrap metal (if not feasible to be recycled).

Used tyres will be buried at the TSF/IWL area (Figure 1 above). The expected final volume of tyres is approximately 116 loader / haul truck tyres and 80 light vehicle tyres. Waste tyres are expected to be delivered once or twice a week with tyre burial operations continuing until all tyres are buried and activity on the site has ceased.

The proposed new landfilling areas will not accept any putrescible waste and it is expected that the generation of windblown waste will not occur, as such, the licence holder has not proposed to install fencing around the new landfill areas.

Open trenches will be inspected weekly for runoff, disturbance of trench and cover / cap integrity.

Once burial of material has been completed, the surface of the completed trench will be levelled off to prevent pooling of water and a final survey completed. Closed trenches will be inspected monthly to ensure that the ground conditions remain unchanged.

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

Table 2: Licence holder controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust including tailings dust	Construction of landfill trenches	Air/windborne pathway	A water cart will be available at all times during construction activities.

Noise			No proposed controls.
Operation			
Dust including tailings dust	Waste handling, disposal of waste, decomposition of wastes, application of landfill cover and vehicle movements	Air/windborne pathway	• A water cart will be available at all times during operation phase; • Waste will be covered immediately after disposal; • Current operating licence L8422/2010/2 requires the licence holder to wet down active tipping area to minimise dust generation associated with vehicle movement and during waste and cover placement.
Noise			Operations around the proposed landfill trenches will be minimised to few hours per day only during the day shift.
Odour			Waste will be covered immediately after disposal.
Contaminated stormwater / fire water		Overland runoff	• Windrows around landfill trenches will be constructed using excavated material to prevent runoff; • Once the burial of material is completed, surface to be levelled off to prevent pooling of surface water; and • Weekly/monthly inspections of landfill trenches.
Leachate		Infiltration through underlying soils to groundwater	• Windrows around landfill trenches will be constructed using excavated material to prevent runoff; • Waste will be covered immediately after disposal; • Once the burial of material is completed, surface to be levelled off to prevent pooling of surface water; and • Weekly/monthly inspections of landfill trenches.
Fire / smoke		Air/windborne pathway	• A water cart will be available at all times during operation phase; and • Waste will be covered immediately after disposal
Landfill gas			No proposed controls.
Windblown waste			• Windrows around landfill trenches will be constructed using excavated material to prevent runoff; and • Weekly/monthly inspections of landfill

			trenches.
Pests / vermin		Biological pathway	• Windrows around landfill trenches will be constructed using excavated material to prevent runoff; • Waste will be covered immediately after disposal; and • Weekly/monthly inspections of landfill trenches.
Acid mine drainage	Disturbance of the old TSF exposing potential acid forming materials (PAF)	Overland runoff Infiltration through underlying soils to groundwater	No proposed controls.

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 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(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	Approximately 400 m south of the proposed landfill trenched at Southern WRL (within the town of Westonia)
Agricultural land	Surrounding the premises
Environmental receptors	**Distance from prescribed activity**
Threatened and Priority Ecological Communities (TEC / PEC) Eucalypt woodlands of the Western Australian Wheatbelt (Priority 3 – critically endangered)	Located within the prescribed premises boundary
Threatened and priority fauna Malleefowl (*Leipoa ocellata)*	Found within a 3 km radius of the prescribed premises
Underlying groundwater	The prescribed premises is located within the

	Westonia Groundwater Area. As reported in the 2023-2024 Annual Environmental Report, depth to the groundwater varies across the site from less than 5 meters below ground level (mbgl) to 90 mbgl.

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 takes into account 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 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 licence L8422/2010/2 that accompanies this amendment report authorises emissions associated with the operation of the premises.

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

Table 4. Risk assessment of potential emissions and discharges from the premises during construction and 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**				
Construction								
Construction of landfill trenches	Dust including tailings dust	Air / windborne pathway causing impacts to health and amenity	Residences 400m south Agricultural land surrounding premises Threatened ecological community within premises	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	**<u>Condition 6</u>** **<u>Existing conditions:</u>** Conditions 7 & 20	The *Edna May Gold Mine: Mine Closure Plan* (2019) (MCP) notes that the underlying material of the Old TSF Landform is highly dispersive. The delegated officer therefore does not consider the dust controls proposed to be sufficient to prevent dust emissions from the activities. The delegated officer considers the other landfilling areas proposed as more appropriate sites for landfilling activities. Condition 6 has been updated to limit where active landfilling may take place.
	Noise			Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	Emission to be regulated under the Environmental Protection (Noise) Regulations 1997 (EP Noise Regulations)
Operation								
Waste handling, disposal of waste, decomposition of wastes, application of landfill cover and vehicle movements	Dust including tailings dust and asbestos fibres	Air / windborne pathway causing impacts to health and amenity	Residences 400m south	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	N	**<u>Conditions 6 & 8</u>**	The delegated officer has revised the landfilling requirements for asbestos waste and has updated the requirements to align with the Environmental Protection (Rural Landfill) Regulations 2002. The MCP notes that the underlying material of the Old TSF Landform is highly dispersive. The delegated officer therefore does not consider the dust controls proposed to be sufficient to prevent dust emissions from the activities. The delegated officer considers the other landfilling areas proposed as more appropriate sites for landfilling activities. Condition 6 has been updated to limit where active landfilling may take place.
	Noise	Air / windborne pathway causing impacts to amenity		Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	Emission to be regulated under the Environmental Protection (Noise) Regulations 1997 (EP Noise Regulations).

	Odour			Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	**Existing condition:** Condition 7	N/A
	Contaminated stormwater / fire water	Overland runoff / migration onto surrounding land causing ecosystem disturbance Seepage through soil to groundwater causing contamination and impacting water quality	Agricultural land surrounding premises Threatened ecological community within premises	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Y	Condition 11 **Existing conditions:** Conditions 7 & 8	N/A
	Leachate	Infiltration into groundwater causing contamination and impacting water quality	Threatened ecological community within premises Underlying groundwater	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	N	**Conditions 6 & 11** **Existing conditions:** Condition 7 & 8	The delegated officer does not consider the licence holder's proposal for landfill trench closure as sufficient to ensure long term integrity of the landfill capping. Condition 11 has been included to require trenches to be capped with at least 1 m of clean fill. Adequate capping minimises the generation of leachate and prevents waste from becoming exposed due to erosion of the cap. The MCP notes that runoff should be retained on top of the Old TSF Landform and infiltrated through the landform. The delegated officer therefore does not consider it appropriate for waste to be buried within the Old TSF Landform as retention of runoff on top of the landform will lead to increased leachate generation rates. The delegated officer considers the other landfilling areas proposed as more appropriate sites for landfilling activities. Condition 6 has been updated to limit where active landfilling may take place.
	Fire / smoke	Air/windborne pathway causing impacts to health and amenity	Residences 400m south	Refer to Section 3.1	C = Moderate L = Rare **Medium Risk**	Y	**Existing conditions:** Condition 7 & 8	N/A
	Landfill gas	Lateral migration through soil, movement through groundwater, or passive venting to air causing impacts to human health, amenity or explosion risk	Residences 400m south Agricultural land surrounding premises	Refer to Section 3.1	C = Major L = Possible **High Risk**	N	**Condition 5**	The licence holder has not considered landfill gas generation as part of the proposal. The delegated officer has limited the disposal of putrescible waste on the premises to 5,000 tonnes per annual period in accordance with the existing approved throughput and has conditioned that no municipal waste may be accepted on the premises.
	Windblown waste	Air/windborne or biological pathway causing impacts to amenity	Agricultural land surrounding premises Threatened ecological community	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	**Existing conditions:** Condition 6, 7 & 8	N/A

			within premises					
	Pests / vermin	Biological pathway causing impacts to health and amenity	Residences 400m south Agricultural land surrounding premises Threatened ecological community within premises	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	**Existing conditions:** Condition 6, 7 & 8	N/A
Disturbance of the old TSF exposing potential acid forming materials (PAF)	Acid mine drainage	Overland runoff / migration onto surrounding land causing ecosystem disturbance	Threatened ecological community within premises	Refer to Section 3.1	C = Moderate L = Likely **High Risk**	N	**Condition 6**	The licence holder has proposed to dispose of up to 50,000 tonnes of waste through the decommissioning period in the Old TSF Landfill. While the delegated officer acknowledges that this site has been chosen as it is a previously disturbed footprint, uncertainty exists regarding the disturbance of PAF material and the long-term stability of the landform if reworked into a landfill. The MCP notes that the potential for acid mine drainage from the exposure of PAF material or metalliferous draining at the Old TSF Landform is a knowledge gap that requires investigating. The delegated officer notes that the use of the Old TSF Landform as a landfill is not consistent with the MCP. Due to a high degree of uncertainty, the delegated officer does not consider it appropriate to use the Old TSF Landform as a landfilling area. The delegated officer considers the other landfilling areas proposed as more appropriate sites for landfilling activities. Condition 6 has been updated to limit where active landfilling may take place.

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 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
Local Government Authority (Shire of Westonia) advised of proposal 8/01/2025	None received.	N/A
Department of Mines, Energy, Industry Regulation and Safety (DEMIRS) advised of proposal 8/01/2025	DEMIRS replied on 10/01/2025 advising that proposed activities related to the following approvals under the Mining Act 1978 (Mining Act): Mine Closure Plan Reg ID 77045 Mining Proposal Reg ID 82475 Mining Proposal Reg ID 98303 The proposed expansion to the landfill areas are not consistent with approved activities in previously approved mining proposals. Currently 0.88 ha of landfill is approved on G 77/122 only. As a result, implementation of the proposed expansion will require the submission and approval of a revised mining proposal/mine closure plan. The proponent is responsible for meeting their obligations under the Mining Act and are encouraged to liaise with DEMIRS regarding this. DEMIRS recommends the following be addressed or considered: • Ensuring appropriate landfill cover requirements are required to effectively contain waste post-closure • Whether sufficient cover material is available for all landfills • How the potential for the long-term release of dispersive waste material and/or tailings as a result of modifying existing landforms (disturbing the currently consolidated tailings surface or uncovering	The department has taken DEMIRS advise into consideration during assessment of the licence amendment. The department notes that it is the licence holder's responsibility to ensure that all relevant approvals are in place before undertaking an activity and the granting of a licence under Part V, Division 3 of the EP Act does not negate the requirement for approvals from other regulatory jurisdictions.

	encapsulated dispersive materials within WRLs) will be managed • The potential for long-term slumping of the landfill facilities and associated mine landforms (WRLs and TSF) as a result of the disposal of waste such as sea containers, vehicles/machinery and tyres • Potential for alternative waste disposal locations onsite to avoid disturbing and potentially compromising pre-existing landforms, such as in-pit with backfill The proposed expansion appears to be relatively large-scale, potentially aiming to allow for the on-site disposal of the majority of/all site infrastructure for the Project. DEMIRS encourages proponents to recycle waste materials as far as practicable, as per the commitments made in MCP Reg ID 77045.	
Licence holder was provided with draft amendment on 6 May 2025	The licence holder provided an email response on 9 June 2025 stating there were no comments on the draft package.	N/A

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 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the revised licence as part of the amendment process.

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
Front cover	Update DWER file number
	Update wording for Category 61 assessed production / design capacity throughput
	Update Category 64 assessed production / design capacity from 5,000 tpa to 50,000 tpa
5, 6 & 7 (previous licence)	Removed completed landfill and bioremediation facility construction and reporting requirements
5	Updated waste receival rates and acceptance specifications
6	Inclusion of waste processing requirements
7	Update requirements for landfilling areas and bioremediation facility
8	Update landfill cover requirements
9	Update wording of condition to reflect multiple landfilling areas
10	Update wording of condition to reflect multiple landfilling areas
11	Inclusion of landfill capping and closure requirements
12	Update to current condition wording
21	Update location references
22, 23, 24 & 25	Update to current condition wording
26	Update to current condition wording and update emission point references
27	Update to current condition wording
Definitions	Removed redundant definitions and include definition for Special Waste Type 1
Figure 1	Updated figure
Figure 3 (previous licence)	Redundant figure removed
Figure 3	Inclusion of active landfilling areas figure

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.
4. Ramelius Resources 2019, *Edna May Gold Mine: Mine Closure Plan,* East Perth, Western Australia.