



Application for Works Approval Amendment

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

Works Approval Number	W2852/2024/1
Works Approval Holder	Agnew Gold Mining Company Pty Ltd
ACN	098 385 883
File Number	App-0029199
Premises	Agnew Gold Mine M36/55 and M36/150
Date of Report	13 June 2025
Decision	Revised works approval granted

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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
3. Risk assessment.....	1
3.1 Source-pathways and receptors	2
3.1.1 Emissions and controls	2
3.1.2 Receptors.....	3
3.2 Risk ratings.....	4
4. Consultation	6
5. Conclusion	6
5.1 Summary of amendments.....	6
References.....	6

1. Decision summary

Works Approval W2852/2024/1 (W2852) is held by Agnew Gold Mining Company Pty Ltd (Works Approval Holder) for the Agnew Gold Mine (the Premises), located at mining tenements M36/55 and M36/150.

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 (Time-limited operations) of the Premises. As a result of this assessment, Revised Works Approval W2852 has been granted.

The Revised Works Approval issued as a result of this amendment consolidates and supersedes the existing Works Approval previously granted in relation to the Premises. The Revised Works Approval has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

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 20 Mat 2025, the Works Approval Holder submitted an application to the department to amend Works Approval W2852 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The purpose of this amendment is to seek approval to increase the RO reject from 6 m³/day to 8 m³/day as specified in Table 2 of the Works Approval. The reason for the increased reject rate is to mitigate membrane fouling. The daily flow rate to the irrigation spray field (ISF) will be 23.16 m³/day which remains within the current allowable amount of 26 m³/day.

Table 1 below outlines the proposed changes to the existing Works Approval.

Table 1: Proposed design or throughput capacity changes

Category	Current design capacity	Proposed design capacity	Description of proposed amendment
85	20 m ³ /day	20 m ³ /day	No change to the existing production and design capacity

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 operation (Time-limited operations) which have been considered in this Amendment Report are detailed in Table 2 below. Table 2 also details the proposed control measures the Works Approval Holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Works Approval Holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	Operation of WWTP and vehicles movements	Air / windborne pathway	<ul style="list-style-type: none"> Physical separation from sensitive receptors. Water cart as required.
Nosie			<ul style="list-style-type: none"> Physical separation from sensitive receptors. Operations comply with the <i>Environmental Protection (Noise) Regulations 1997</i>. Limited vehicle movements required. Containerised Wastewater Treatment Plant (WWTP) has noise protection.
Odour	Operation of WWTP and abnormal operations of the WWTP		<ul style="list-style-type: none"> Physical separation from sensitive receptors. Containerised system with enclosed in a sea container. Daily plant inspection and maintenance. Sludge removed from Premises. 50 m buffer for ISF.
Discharges to Land	Treated wastewater containing contaminants (e.g. nutrients, pathogens, metals)	Discharge to land and subsurface seepage causing contamination of soil, degradation of groundwater quality and impacts to downgradient receptors.	<ul style="list-style-type: none"> Physical separation from sensitive receptors. Advanced secondary treatment. Target Treated wastewater (TWW) Parameters. ISF area of at least 1.0 ha with a 50 m buffer. Spray and run-off will not occur beyond the boundary of the ISF. Sprinklers evenly distributed within the ISF to avoid pooling/water logging and erosion. Suitable storage will be maintained in the treated wastewater tank. Fencing and signage installed around

Emission	Sources	Potential pathways	Proposed controls
			ISF. <ul style="list-style-type: none"> Monitoring of TWW during Time-limited operations (180 days). Flow meter installed to monitor TWW discharged to the ISF. Depth to groundwater is 12mbgl.
Spills / Leaks	Operation of WWTP	Direct discharge to land and groundwater	<ul style="list-style-type: none"> Daily inspection and maintenance. All storage components are impermeable. High level alarms. Sufficient freeboard in each tank. Spare pumps kept on site. Sludge will be stored in separate sludge storage tanks and removed off-site. TWW pipelines to ISF will be HDPE.
Contaminated Stormwater	Operation of WWTP	Direct discharge to land and surface water	<ul style="list-style-type: none"> Physical separation from sensitive receptors. All wastewater treatment infrastructure will be bunded.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Works Approval 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
Station Homestead	15km south of the Premises
Environmental receptors	Distance from prescribed activity
Groundwater	12mbgl.
Surface drainage lines	750m west of WWTP.
Native vegetation – dominant vegetation unit is Mulga Flats (poor condition), typically consisting of flat sandy plains and <i>Acacia</i>	Within and surrounding the premises.

aneura shrub	
Aboriginal heritage places	<p>There are potentially up to 65 Aboriginal heritage places located within or surrounding the premises boundary, with 23 registered sites located at the middle to southern portion of the premises, beginning at the Crusader Complex pits and ending around Songvang TSF4. These sites are primarily artefacts/scatter in nature.</p> <p>The Lawlers Creek (Place ID 20666) flows along the eastern and southern portions of Songvang TSF4 and is also a registered Aboriginal heritage site, classified as 'mythological' and a water source.</p> <p>The Applicant have noted that Aboriginal heritage place values are not expected to be impacted as a result of the granting of this works approval.</p>

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 incomplete 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 W2852 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 Premise during Time limited operation

Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of works approval / licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
Operation (including time-limited-operations operations)								
Operation of WWTP and ISF including vehicle movements (reversing beepers).	Dust	Air / windborne pathway causing impacts to health and amenity	Residences 15 km south	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	N/A	N/A
	Noise			Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	N/A	N/A
	Odour			Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	N/A	N/A
	Discharges to Land	Direct discharge to land, resulting in impacts to ecological health and amenity. Contamination of groundwater	Groundwater 12mbgl	Refer to Section 3.1	C = Slight L = Unlikely Low risk	Y	Condition 1, 2, 3, 4, 5, 6, 7, 8, 11 and 12.	N/A
	Spills / Leaks	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality Contamination of groundwater	Surface drainage line 750 m west Groundwater 12mbgl	Refer to Section 3.1	C = Slight L = Rare Low Risk	Y	Condition 1 and 6.	N/A

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 amendment on 12 June 2025	Works Approval Holder requested to waive the comment period and issue the amendment on 13 June 2025.	Noted.

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Works Approval 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 Works Approval as part of the amendment process.

Table 6: Summary of works approval amendments

Condition no.	Proposed amendments
Condition 6 Table 2 2(a)	Increase the RO reject from 6 m ³ /day to 8 m ³ /day.

References

Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.

1. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
2. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.