Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Works Approval

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

Works Approval Number	W2886/2025/1
Applicant	Paddington Gold Pty Limited
ACN	008 585 886
File number	DER2020/000062~4
Premises	Golden Cities Part of Mining Tenements M24/188, M24/251, M24/425 and M24/557 As defined by the premises maps attached to the issued works approval
Date of report	10 March 2025
Decision	Works approval granted

Kang Tam

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Date: 2025.03.10 16:42:39 +08'00'

A/MANAGER, RESOURCE INDUSTRIES
INDUSTRY REGULATION (STATEWIDE DELIVERY)

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

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1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W2886/2025/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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 and overview of premises

On 30 October 2024, Paddington Gold Pty Limited (the applicant) applied to DWER for a works approval under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is seeking approval to construct a dewatering pipeline from an existing dewatering network to Victory Pit at Golden Cities mine site within mining tenements M24/188, M24/251, M24/425 and M24/557 (the premises). Victory Pit will be a new discharge location for hypersaline water. This proposal will facilitate the mining of ore from open pits as they are actively mined including Federal, Mulgarrie and Havanah open pits at the Premises. The discharge capacity will be 2,200,000 kL (tonnes) per year. Victory Pit is located 200 m south of the historic Broad Arrow townsite (a registered site with the WA Heritage Council). The premises is approximately 26.9 km south east of Ora Banda.

The pipeline will be installed within secondary containment to prevent leaks of hypersaline water impacting native vegetation. The pipeline will be buried at the Goldfields Highway and railway corridors and will terminate over the crest of Victory Pit.

Installation of dewatering infrastructure will be followed by a commissioning period to confirm the correct installation and operation of infrastructure. Construction and commissioning will be reported upon through an Environmental Compliance Report and submitted to the department prior to commencing dewatering under Time Limited Operations.

The premises relates to the category and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W2886/2025/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W2886/2025/1.

Water quality

The water quality of the source pits and receiving Victory Pit are hypersaline with a pH of above 7 (refer to Table 1).

Table 1: Water quality of source and receiving pits

Water quality as of 12 January 2025						
	Federal	**Havana**	**Mulgarrie**	**Jakarta**	**Golden Arrow**	**Victory**
pH	7.1	7.84	7.4	8.2	7.69	7.55
TDS (mg/l)	78,200	82,400	78,100	71,200	83,200	51,410

Storage capacity

Victory Pit has sufficient storage with an estimated 1.5 years of capacity. The gains and losses are shown in Table 2. A freeboard of 6 m will be applied.

Table 2: Victory Pit Water Balance

Gains due to discharge	**Gains due to rainfall**	**Losses due to evaporation**	**Net gain to Victory Pit**	**Storage capacity (up to freeboard)**
(m^3 per annum)				
2,200,000	29,284	286,988	1,942,296	3,077,031

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 decision report are detailed in Table 3 below. Table 3 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 3: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Placement of pipelines and construction of bunding Reversing croakers. Construction of stormwater channels and stormwater sump	Air / windborne pathway	No controls proposed.
Noise			No controls proposed.
Operation			
Hypersaline mine water	Failure of dewatering pipeline	Overland runoff	• Pipeline/s to be buried or placed and maintained within an earthen v-drain; • Pipelines and associated dewatering infrastructure will be inspected twice per 24-hour period when in operation; • Leak detection and automatic flow-control telemetry will be installed; • Automatic shut off will occur when a leak is detected; • Spill containment capacity will be sufficient to contain the volume of water that may be released until detection and telemetry flow control is activated; • Spill containment will be facilitated by the collective capacity of the v-drain and scour pit network; and • Scour pits will be constructed at strategic points to allow for pipeline maintenance and spill containment.
	Discharge into Victory Pit	Overtopping	During active discharge, a minimum vertical freeboard of 6 m will be maintained.
		Seepage from pit floor and walls	During active discharge, a minimum vertical freeboard of 6 m will be maintained.

3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant's 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.

Table 4 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 4: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
Broad Arrow Residence	0.5 km northeast of the discharge point at Victory Pit. Location of pipeline is greater than 0.5km from Broad Arrow Residences.
Goldfields Highway	0.5 km east of the discharge point of Victory Pit. Pipeline will be buried beneath the road corridor.
Environmental receptors	**Distance from prescribed activity**
Native vegetation	Immediately adjacent to the pipeline corridor.
Groundwater	Groundwater is hypersaline with depth to groundwater at least 25 meters below ground level (mbgl) (DWER, 2025). Closest groundwater abstraction bore is located 1.5km west of Victory Pit (water licence holder is works approval holder).
Surface water	Minor non perennial watercourse 1.14km west of Victory Pit.

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source 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 applicant 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 applicant'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 applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 5.

Works approval W2886/2025/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 5 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 i.e. Mine dewatering activities. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

Table 5: Risk assessment of potential emissions and discharges from the premises during construction and operation

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Placement of pipeline and construction of bunding Reversing croakers.	Dust	Air / windborne pathway causing impacts to health and amenity	Residences of Broad Arrow 0.5km from construction works. Goldfields HWY	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	N	**Condition 2**	With residences and a tavern 500 m from construction of the pipeline corridor, and goldfields Hwy adjacent to the construction works there is a risk that dust could have minor impacts during construction. Condition 2 has been added to the works approval to manage this risk.
	Noise			Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	N/A	Construction works will occur during daytime hours and will be for a short period of time. Noise emissions are likely to meet the assigned noise levels within the *Environmental Protection (Noise) Regulations 1997* (Noise regulations) at receptors due to the distance to receptors and the low level of noise expected to be emitted. The applicant is required to comply with the Noise Regulations at all times.

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Operation (including time-limited-operations operations)								
Operation of dewatering pipeline	Noise from dewatering pipeline pumps	Air / windborne pathway causing impacts to health and amenity	Residences of Broad Arrow	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	N/A	N/A	Due to the low level of noise emitted from pump equipment and the distance to the nearest sensitive receptor it is unlikely that an unacceptable impact (exceedance of assigned noise levels in Noise Regulations) to residences of Broad Arrow will occur The applicant is required to comply with the assigned noise levels within the Noise Regulations at all times.
	Hypersaline mine water	Spills and burst of pipeline, overland runoff causing impacts to health of vegetation	Native Vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	N	**Condition 1**	Generally, the applicant's controls have been conditioned, however, the applicant has provided limited detail on the specifications and engineering of the pipeline. The Delegated Officer has conditioned pipeline specifications.

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Discharge of hypersaline water to Victory Pit	Hypersaline mine water	Mounding of the groundwater table causing impacts to health of vegetation	Native Vegetation	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	Condition 7 Condition 8 **Condition 9**	The applicant has committed to maintaining a 6 m freeboard. Monitoring and reporting have been conditioned as per existing licence L9242/2020/1.
		Overtopping of Victory Pit causing impacts to health of vegetation, flooding infrastructure	Native Vegetation Broad Arrow Tavern Goldfields Highway	Refer to Section 3.1	C = Major L = Unlikely **Medium Risk**	N	Condition 7 Condition 8 **Condition 9**	The applicant has committed to maintaining a 6 m freeboard. Monitoring and reporting have been conditioned as per existing licence L9242/2020/1.

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

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 6 provides a summary of the consultation undertaken by the department.

Table 6: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 08/01/2025 (closed on 29/01/25).	None received	N/A
City of Kalgoorlie-Boulder advised of proposal on 08/01/2025.	On 19 January 2025, the City raised concerns around noise, dust and mosquito control for nearby residents. Noise from pumps running constantly and may be different from the noise residents are used to hear from the mining activities. To ensure dust control during pipeline installation impacting users of the Goldfields Highway. Ensure no water in the environment is causing a habitat for breeding of mosquitoes.	Condition 2 relates to dust suppression during construction activities. The department's risk assessment has determined that impacts from noise from the running of dewatering pumps is not likely to have a significant impact on receptors located more than 500 m away from the discharge point at Victory Pit. The works approval holder will be required to comply with the Environmental Protection (Noise) Regulations 1997. Pest management is not regulated under the EP Act.
Broad Arrow Tavern was mailed the proposal on 08/01/2025.	None received	N/A
Applicant was provided with draft documents on 04/01/2025.	On 6 March 2025, the applicant provided outstanding information requested by the department, relating to the proposed discharge throughput into the Victory Pit. No further comments were provided.	The department has updated the Decision Report and works approval accordingly.

5. Conclusion

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

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.