Application for Works Approval

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

Works Approval Number	W6573/2021/1
Applicant	Paddington Gold Pty Limited
ACN	008 585 886
File number	DER2021/000412
Premises	Rose Dam North Paddington Mill Site, Goldfields Highway MOUNT PLEASANT WA 6431 Legal description – Part of mining tenements M24/81, M24/82, M24/182, M24/223, M24/266, M24/227, M24/229, M24/234, M24/236, M24/265, M24/302, M24/393, M24/451 and M24/838 As defined by the coordinates in Schedule 1 of the works approval As defined by the premises maps attached to the issued works approval
Date of report	14 January 2022
Decision	Works approval granted

Melanie Bruckberger

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Melanie Bruckberger
A/MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES
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, time limited operations and operation of the premises. As a result of this assessment, works approval W6573/2021/1 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

Paddington Gold Pty Limited (applicant) currently holds licence L8327/2008/2 for categories 6 and 12 under Part V of the *Environmental Protection Act 1986* (EP Act). The premises is approximately 8 km south-west of Broad Arrow town and 31 km north-north-west of the City of Kalgoorlie-Boulder.

On 28 June 2021, the applicant submitted an application for a works approval to the department under section 54 of the EP Act. The application is to:

- undertake construction/installation works and time limited operations relating to new category 6: mine dewatering operations;
- increase dewatering from 1,400,000 kL to 1,600,000 kL per annual period. The assessed production capacity of the existing licence L8327/2008/2 is 1,400,000 kL per annual period, therefore a proposed increase of 200,000 kL is being sought.

The premises relates to the category and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations), which are defined in works approval W6573/2021/1. 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 2020b) are outlined in works approval W6573/2021/1.

2.1 Description of proposed activity

2.1.1 Construction

The proposed construction phase activities include the following works:

- Installation of new dewatering infrastructure, including:
  - pipeline from Rose Dam North Pit 1 to Rose Dam North Pit 2;
  - pipeline from Rose Dam North Pit 2 to Rose Dam South Pit;
  - pipeline from Rose Dam South Pit to Rose East Pit;
  - dewatering pumps (with diesel generator for power);
  - v-drain bund along entire pipeline route; and
  - scour pits at strategic locations and low points along the entire pipeline route.

2.1.2 Operations (including time limited operations)

The proposed dewatering operations (including time limited operations) activities include the following:

1. mine dewatering:
    a) Rose Dam North Pit 1 to Rose Dam North Pit 2;
    b) Rose Dam North Pit 2 to Rose Dam North Pit 1;
    c) Rose Dam North Pit 1 and Rose Dam North Pit 2 to Rose Dam South Pit; and
    d) Rose Dam North Pit 1 and Rose Dam North Pit 2 to Rose East Pit.
2. storage of fuel, refuelling and routine maintenance of equipment.

2.2 Mining Proposal

Paddington Gold Pty Limited submitted a Mining Proposal (Reg ID 100195) to the Department of Mines, Industry Regulation and Safety (DMIRS) on 23 September 2021. The application is currently under assessment.

2.3 Clearing Permit

A clearing permit, CPS No: 9043/1, to clear 380 hectares (ha) of native vegetation has been granted under the EP Act. The requirements of the clearing approval have not been duplicated within works approval W6573/2021/1.

The Delegated Officer notes that this works approval does not authorise any clearing activities to be undertaken. The applicant must seek the appropriate approvals for any proposed clearing of native vegetation outside of the areas approved under the existing clearing permit as described above.

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 2020b).

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, time limited operations and operations which have been considered in this decision report are detailed in Table 1 below.

Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed applicant controls
Construction			
Dust	Mobile equipment (e.g. light vehicles and heavy equipment)	Air/Wind dispersion	• Water cart available for use in dust suppression as required. • Dust generating equipment will be assessed and mitigation measures implemented as required (for example restricting access and/or increased wind breaks). • Monitoring: ○ daily visual observations and annual visual audits of dust emissions (e.g. road corridors, bunding, v-drains and spoon drains). Visible dust emissions reported as a hazard to the shift supervisor, who will ensure a water cart is directed to the relevant area.

Mine dewater (saline to hypersaline, 55,000-82,500 mg/L TDS)	Use of mine dewater for onsite dust suppression	Overspray or runoff from dust suppression operations (e.g. action of spraying saline to hypersaline water)	• Dust suppression applied in a method that minimises impacts to native vegetation and contamination of surrounding environment, for example:
			  ○ the use of dribble bars as opposed to spray bars; and
			  ○ water sprayed where adjacent v-drains are in place to capture runoff and wind conditions are moderate.
			• Water is not to be sprayed where any topsoil stripping operations are occurring.

Stormwater (sediment laden)	Loose material (sediment) during construction/installation of pipeline bunding (v-drains and scour pits)	Overland runoff	No applicant controls proposed.

Emission	Sources	Potential pathways	Proposed applicant controls
Time limited operations and operations			
Hydrocarbons (e.g. hydraulic oil or diesel) and chemicals	Operation of mobile equipment (e.g. generators and dewatering pumps)	Direct discharge/overland flow (spills or leaks to ground, overflow during filling and/or breach of containment)	• Appropriately designed and maintained service truck. • Hydrocarbons not stored in fuel tanks will be stored in low permeability bunded areas. • Hydrocarbons and hydrocarbon contaminated material will be collected and sent offsite for treatment and disposal. • Adequately stocked hydrocarbon spill kits available near each machine. • Training: ○ toolbox presentations to employees.

Mine dewater (saline to hypersaline, 55,000-82,500 mg/L TDS)	Use of mine dewater for onsite dust suppression	Overspray or runoff from dust suppression operations (e.g. action of spraying saline to hypersaline water)	• Dust suppression applied in a method that minimises impacts to native vegetation and contamination of surrounding environment, for example:
			  ○ the use of dribble bars as opposed to spray bars; and
			  ○ water sprayed where adjacent v-drains are in place to capture runoff and wind conditions are moderate.
			• Water is not to be sprayed where any topsoil stripping operations are occurring.

Mine dewater (saline to hypersaline, 55,000-82,500 mg/L TDS)	Disposal of mine dewater to pits	• Seepage of mine dewater through base and walls of pits to soil and groundwater • Overtopping of mine dewater from pits	• Installation of markers at 6 metres below ground level (mbgl). • Monitoring: ○ monthly monitoring of abstraction and discharge volumes (Rose East Pit, Rose Dam South, Rose Dam North 1 and Rose Dam North 2).

Emission	Sources	Potential pathways	Proposed applicant controls
			○ monthly surveying of water level within Rose East Pit and Rose Dam South. If water level approaches 6 m from the surface of any pit, a groundwater management plan will be developed to ensure water levels remain less than 6 mbgl at nearest native vegetation. ○ water quality monitored annually, analysed parameters include pH, electrical conductivity (EC), total dissolved solids (TDS) and metals. ○ groundwater sampling procedures shall be conducted in accordance with Australian Standard AS/NZS 5667.11. ○ groundwater samples sent to a National Association of Testing Authorities (NATA) accredited laboratory for analysis. • Inspections: ○ Inspection of discharge pit water levels to ensure water levels are maintained within the nominated free board associated with the relevant licences (generally 6 mbgl).
		Mine dewater discharged to environment via pipeline leak/rupture	• Pipeline construction: ○ between 110 and 315 nominal bore (NB) single weld pipeline; ○ flow meters, isolation and breather valves installed; and ○ in accordance with: – AS/NZS 2033:2008: Installation of polyethylene pipe systems; – AS/NZS 4129:2008 Fittings for polyethylene (PE) pipes for pressure applications;

Emission	Sources	Potential pathways	Proposed applicant controls
			– AS/NZS 4130:2009 Polyethylene (PE) pipes for pressure applications; and – AS/NZS 4131:2010 Polyethylene (PE) compounds for pressure pipes and fittings. • Pipeline bunding: ○ pipeline will be placed in an earthen v-drain bund with sufficient capacity to contain spillage in the event of a pipeline failure; and ○ scour pits will be constructed along the pipeline route at strategic locations and low points, to provide sufficient capacity to contain discharge that may occur between inspection periods in the event of a rupture, or discharges during maintenance activities. • A no-load commissioning check will be undertaken prior to any dewatering, this will include: ○ confirming pumps, flow meters, air valves and scour valves are installed correctly; ○ inspecting pipeline weld integrity; ○ pressure testing of the pipeline to maximum credible operating pressure for the discharge locations; ○ confirming v-drains are a maximum of 30 cm deep and sufficient to contain a volume of discharge from the pipeline; ○ confirming that entire pipeline is contained within v-drains; and ○ confirming that scour pits have been installed at strategic locations along the pipeline corridor. • Inspections:

Emission	Sources	Potential pathways	Proposed applicant controls
			○ 12 hourly pipeline inspections: – Inspection of the pipeline network for leaks and to check that all pipelines, valves, flow meters, fittings and other equipment are in good operating condition; – Inspections of pipeline bund for erosion, degradation and to ensure pipeline remains within the confines of the bund; and – Inspection of discharge pit water levels to ensure water levels are maintained within the nominated free board associated with the relevant licences (generally 6 mbgl). • Maintenance: ○ servicing and/or maintenance of pumps, breathers, isolation values, flow meters, bunds and sumps.

3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020b), 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 2 below provides a summary of potential environmental receptors that may be impacted because of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental Siting* (DWER 2020a)).

Table 2: Sensitive environmental receptors and distance from prescribed activity

Sensitive receptors	Distance from mine dewatering activities	Pathway assessment
Environmental receptors		
Priority flora	The following conservation significant flora species may occur within 2 km south-east of Rose Pit East (DWER Geocortex): • *Ptilotus sp. Kalgoorlie* (P1). A desktop assessment undertaken by Botanica Consulting (Botanica) determined six Priority 1, three Priority 3 and one Priority 4 flora taxa as possibly occurring within the survey area (NGFL 2020). No Threatened or Priority flora species were recorded during the field survey undertaken by Botanica (NGFL 2020).	The following can potentially lead to poor Priority flora/native vegetation health: • Pathway via air/wind dispersion (dust); • Pathway via overspray or runoff from dust suppression operations (e.g. action of spraying saline to hypersaline water); • Pathways via overland runoff (sediment laden stormwater); • Pathway via overland flow of hydrocarbons and chemicals; • Pathway via seepage of mine dewater (saline to hypersaline) through base and walls of pits to soil and groundwater, which can potentially lead to groundwater mounding; and • Pathway via discharges of mine dewater (saline to hypersaline) from pipeline ruptures or leaks.
Native vegetation	Native vegetation within the proposed dewatering pipeline route are broadly described as *Eucalyptus* low open woodland and considered to be in 'Good' condition using the vegetation condition rating scale adapted from Keighery, 1994 and Trudgen, 1988 (NGFL 2020).	
Threatened fauna	A desktop assessment undertaken by Botanica identified eight fauna species of conservation significance as previously being recorded in the general area, consisting of seven Threatened species, one Priority 1 species and migratory bird species (NGFL 2020). The following conservation significant fauna	None.

Sensitive receptors	Distance from mine dewatering activities	Pathway assessment
	species have been sighted (DWER Geocortex): • Malleefowl, *Leipoa ocellata* (considered Threatened - Vulnerable at a State level and Vulnerable at a Federal level) – sightings approximately 1.1 km south-east of Rose Dam South Pit and 1.9 km south-south-east and 3.3 km south-east of Rose Dam North Pit 1. Sightings range from 2013 to 2018. No evidence of significant fauna species were observed during the field survey undertaken by Botanica (NGFL 2020). Targeted surveys conducted in 2019 and 2020 did not identify any evidence of Malleefowl activity in the Rose Dam area and considered the habitat present to be very marginal or unsuitable for Malleefowl breeding (NGFL 2020). Considering the above, threatened fauna are not considered to be impacted during construction or operations and therefore not further considered in the risk assessment.	
Native fauna	According to the results of the NatureMap Database search in 2020, a total of 145 vertebrate fauna taxa have been recorded within a 40 km radius of the survey area, consisting of 145 bird, 31 mammal, 75 reptile, five amphibian and 1 fish taxa. This total includes nine introduced (feral) species (NGFL 2020).	Native fauna gaining access to pits where mine dewater is discharged. *For noting:* • *Hypersalinity (>50,000 mg/L TDS) provides a natural barrier for wildlife exposure to the mine dewater because at this salinity the solutions are outside the physiologically safe drinking range of wildlife and wildlife seek to avoid its ingestion while foraging (MERIWA 2008).* Considering the above, this receptor is not considered to be impacted during construction or operations and therefore not further considered in the risk assessment.

Sensitive receptors	Distance from mine dewatering activities	Pathway assessment
Groundwater	Premises is located within the Goldfields Groundwater Area proclaimed under *Rights in Water and Irrigation Act 1914*. Groundwater is considered highly saline at 14,000 to 35,000 mg/L Total Dissolved Solids (TDS) (DWER Geocortex). Regional groundwater flow is generally to the east towards major groundwater discharge zones at/near Lake Yindargooda, located approximately 61 km south-east of the premises dewatering activities. Pre-mining groundwater flow within the paleochannel aquifer would have been from the west and south-west and to the north-east and then east. However, groundwater flows have been (and will continue to be) influenced by mining and dewatering (NGFL 2020).	The following can potentially lead to reduced quality or contamination of groundwater: • Pathway via overspray or runoff from dust suppression operations (e.g. action of spraying saline to hypersaline water); • Pathways via overland runoff (sediment laden stormwater); • Pathway via overland flow of hydrocarbons and chemicals; • Pathway via seepage of mine dewater (saline to hypersaline) through base and walls of pits to soil and groundwater, which can potentially lead to groundwater mounding; and • Pathway via discharges of mine dewater (saline to hypersaline) from pipeline ruptures or leaks.

Surface waters	• Salt lakes system (Black Flag Lake) located approximately 2.1 km south-east of Rose East Pit.
	• Ephemeral creek lines:
	  ○ an ephemeral creek line located immediately east of Rose Dam North Pit 1 and approximately 614 m east of Rose Dam South Pit; and
	  ○ two ephemeral creek lines runs through Rose Dam North Pit 2.
	
	The ephemeral creek lines in the region are dry for most of the year, only flowing briefly immediately following significant rainfall.
	
	The ephemeral creek lines adjacent to the dewatering operations flow south into Black Flag Lake.
		Discharges from overtopping of pits and pipeline ruptures or leaks have potential to flow into the ephemeral creeks and salt lake system (Black Flag Lake).

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020b) for each identified emission source 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 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 3.

Works approval W6573/2021/1 that accompanies this decision report authorises construction and time limited operations. The conditions in the issued works approval, as outlined in Table 3 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. dewatering activities from the two (2) additional pits (Rose Dam North 1 and Rose Dam North). 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 3: Risk assessment of potential emissions and discharges from the premises during construction, time limited operations and operation

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	**Potential emission**	**Potential pathways**	**Potential adverse impacts**	**Receptors**	**Applicant controls**				
Construction									
Source: • Movement of mobile equipment (e.g. light vehicles and heavy equipment) Activities: • Construction and installation of dewatering infrastructure including pipeline bunding	Dust	Air/Wind dispersion	Impacts to Priority flora/native vegetation health	Priority flora/Native vegetation	Refer to Table 1, section 3.1.1	C = Slight L = Possible **Low Risk**	Yes	Condition 2 (Table 1, item 1)	N/A
Source: • Mine dewater stored in pits Activities: • Use of mine dewater for onsite dust suppression	Mine dewater (saline to hypersaline, 55,000-82,500 mg/L TDS)	Overspray or runoff from dust suppression operations (e.g. action of spraying hypersaline water)	Reduced quality or contamination of soil, sediment and groundwater Soil sodicity, sprayed surfaces may become dispersive, causing increased erosion/sedimentation Impacts to Priority flora/native vegetation health	Soil/Sediment Groundwater Priority flora/Native vegetation	Refer to Table 1, section 3.1.1	C = Moderate L = Possible **Medium Risk**	Yes	**Condition 1(a)** Condition 1(b)	Additional regulatory requirement applied to ensure mine dewater is stored within the pits (to facilitate particulate settling) prior to its use in dust suppression.

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	**Potential emission**	**Potential pathways**	**Potential adverse impacts**	**Receptors**	**Applicant controls**				
Source: • Loose material (sediment) during construction/installation of pipeline bunding (v-drains and scour pits) Activities: • Stormwater migrating through construction areas	Stormwater (sediment laden)	Overland runoff	Impacts to Priority flora/native vegetation health	Priority flora/Native vegetation	Refer to Table 1, section 3.1.1	C = Minor L = Possible **Medium Risk**	No	**Condition 2 (Table 1, item 1)**	Additional regulatory requirements applied to manage stormwater runoff. The Delegated Officer notes that the general provisions of the EP Act, *Environmental Protection (Unauthorised Discharges) Regulations 2004* (UDRs) and associated regulations are available to regulate sediment emissions during construction.
Time limited operations and operations									
Source: • operation of mobile equipment (e.g. light vehicles, heavy equipment, generators and dewatering pumps) Activities: • storage of fuel, refuelling and routine maintenance of equipment; and • damage to equipment causing leaks.	Hydrocarbons (e.g. hydraulic oil or diesel) and chemicals	Spills or leaks, overflow during filling and/or breach of containment, resulting in direct discharge/overland flow to soil/sediment and infiltration to groundwater	Infiltration to groundwater via soil causing impacts to groundwater quality Impacts to Priority flora/native vegetation health	Groundwater Priority flora/Native vegetation (located along dewatering pipeline route)	Refer to Table 1, section 3.1.1	C = Slight L = Possible **Low Risk**	Yes	Condition 8 (Table 3, items 1 and 2)	N/A
Source: • Mine dewater stored in pits	Mine dewater (saline to hypersaline, 55,000-82,500	Overspray or runoff from dust suppression	Reduced quality or contamination of soil, sediment and groundwater	Soil/Sediment Groundwater Priority	Refer to Table 1, section 3.1.1	C = Moderate L = Possible	Yes	**Condition 1(a)** Condition 1(b)	Additional regulatory requirement applied to ensure mine dewater is stored within the pits (to

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	**Potential emission**	**Potential pathways**	**Potential adverse impacts**	**Receptors**	**Applicant controls**				
Activities: • Use of mine dewater for onsite dust suppression	mg/L TDS)	operations (e.g. action of spraying hypersaline water)	Soil sodicity, sprayed surfaces may become dispersive, causing increased erosion/sedimentation Impacts to Priority flora/native vegetation health	flora/Native vegetation		**Medium Risk**			facilitate particulate settling) prior to its use in dust suppression.
Source: • Disposal of mine dewater to pits	Mine dewater (saline to hypersaline, 55,000-82,500 mg/L TDS)	Seepage of mine dewater through base and walls of pits to soil and groundwater	Reduced quality or contamination of groundwater, soil, and/or sediment Groundwater mounding Impacts to Priority flora/native vegetation health	Groundwater Soil/Sediment Priority flora/Native vegetation (located within any areas of groundwater mounding)	Refer to Table 1, section 3.1.1	C = Moderate L = Possible **Medium Risk**	Yes	Condition 2 (Table 1, item 1) **Conditions 3-6** Condition 7 (Table 2) Condition 8 (Table 3, item 6) **Condition 9** **Condition 11 (Table 4) and condition 12 (Table 5)** **Condition 12 (Table 5), condition 13 (Table 6), condition 14 (Table 7) and condition 15**	Additional regulatory requirements applied to: • ensure monitoring equipment is calibrated prior to use (condition 9); • undertake sampling in accordance with AS/NZS 5667.1 (condition 11, Table 4 and condition 12, Table 5); • undertake analysis of the mine dewater quality within Rose Dam North Pit 2 (condition 11, Table 4); and • include a trigger value for the standing water level (SWL) within the pits and management actions should there be an

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	Potential emission	Potential pathways	Potential adverse impacts	Receptors	Applicant controls				
									exceedance of specified trigger value (condition 12, Table 5; condition 13, Table 6; condition 14, Table 7 and condition 15). Some additional regulatory requirements apply to compliance reporting and duration of time limited operations (conditions 3-6). *For noting:* • *Should any specified trigger values be exceeded, the management actions proposed by the works approval holder may be incorporated into the existing licence during any future licence amendment.*
		Overtopping of mine dewater from pits	Reduced quality or contamination of soil, sediment, groundwater and/or surface water Soil sodicity, impacted areas may become dispersive, causing increased erosion/sedimen	Soil/Sediment Groundwater Surface waters (Black Flag Lake located 2.1 km south-east and ephemeral creek lines located through Rose Dam North Pit	Refer to Table 1, section 3.1.1	C = Moderate L = Unlikely **Medium Risk**	Yes	Condition 2 (Table 1, item 1) Condition 8 (Table 3, item 6)	N/A
		Mine dewater discharged to environment via pipeline leak/rupture			Refer to Table 1, section 3.1.1	C = Moderate L = Possible **Medium Risk**	Yes	**Condition 2 (Table 1, item 1)** Condition 8 (Table 3, items	Additional regulatory requirement applied to ensure pipelines are anchored at relevant intervals to restrict

Risk Event						Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory requirements
Source/Activities	Potential emission	Potential pathways	Potential adverse impacts	Receptors	Applicant controls				
			tation Impacts to Priority flora/native vegetation health	2 and east of pits) Priority flora/Native vegetation (located along pipeline route)				3, 4 and 5)	movement in the event of a significant rainfall event.

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

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

4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 16 August 2021	None received	N/A
Local Government Authority advised of proposal on 16 August 2021	The City of Kalgoorlie-Boulder replied on 17 August 2021 advising that they have no objections to the works approval application.	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal on 16 August 2021	DMIRS replied on 17 August 2021 advising that the proposed changes to the dewatering plans are not consistent with the existing MP (Registration ID: 92390) and that an updated MP had not yet been received.	On 22 September 2021, DWER issued a request for further information (RFI) to the applicant requiring confirmation that the relevant DMIRS approvals had been sought for the proposed changes to the existing dewatering activities.
Applicant was provided with draft documents on 26 November 2021	The applicant provided comments on 6 January 2022. The summarised applicant provided comments are provided in Appendix 1.	DWER responses to applicant comments are provided in Appendix 1.

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) 2020a, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020b, *Guideline: Risk Assessments*, Perth, Western Australia.
4. MERIWA 2018, Adams, M.D., Donato, D.B., Schulz, R.S. and Smith, G.B., 2008, *Influences of Hypersaline Tailings on Wildlife Cyanide Toxicosis; MERIWA Project M398 (II) 'Cyanide Ecotoxicity at Hypersaline Gold Operations' Final Report Volume 2 – Definitive Investigation.*
5. Norton Gold Fields Limited (NGFL) 2020, *Rose Dam North Works Approval Application, Paddington Gold Pty Ltd*, Kalgoorlie, Western Australia.

Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
2 (draft works approval)	The applicant requested for condition 2 to be removed from the draft works approval, which required that a fauna specialist undertake an inspection of the construction area prior to installation of the new dewatering pipeline if construction was scheduled between 1 September and 31 January (Mallefowl breeding season). Justification for the condition 2 removal request was due to targeted surveys being conducted in 2019 and 2020 that did not identify any evidence of Malleefowl activity in the Rose Dam area and considered the habitat present to be very marginal or unsuitable for Malleefowl breeding (NGFL 2020). Additionally, the clearing permit issued on 5 November 2020 does not specify any Malleefowl management conditions.	The Delegated Officer is satisfied with the applicant's proposed update. Condition 2 has now been removed from the works approval and the 'Definitions' table updated accordingly to reflect the change.
8 (item 1, Table 3)	Include the text 'hydrocarbon' to make the spill management regulatory requirements specific to hydrocarbon discharges.	The Delegated Officer acknowledges that discharge risks from the operation of mobile equipment (e.g. light vehicles, heavy equipment, generators and dewatering pumps) are primarily due to hydrocarbon; however other chemicals (e.g. engine coolant, AdBlue etc.) may also pose environmental discharge risks. Therefore, the Delegated Officer has determined that the generic text in relation to spill management requirements is deemed suitable in this instance. Condition 8 (item 1) remains unchanged.
8 (item 4, Table 3)	Remove the second sentence text "The inspections are to be no more than 12 hours apart". As the inspections are required 12 hourly, then they will not be more than 12 hours apart; therefore the second sentence is unnecessary.	The Delegated Officer is satisfied with the applicant's proposed update. Condition 8 (item 4) has been updated accordingly.
8 (item 5, Table 3)	Remove the requirement for inspection of dewatering pipeline anchors prior to and following significant rainfall events. The applicant noted that: • prediction of significant rainfall events is uncertain and inspections prior to these events may not be practicably achievable; and • whilst in operation, an inspection to check the integrity of the anchors is required to occur every 12 hours. Following a significant rainfall event, the inspection schedule	The Delegated Officer is satisfied with the applicant's proposed update. Condition 8 (item 5) has been updated accordingly.

Condition	Summary of applicant's comment	Department's response
	will resume as soon as is safe to do so.	
8 (item 6, Table 3)	Remove the requirement for inspection of pit standing water levels prior to significant rainfall events. The applicant noted that prediction of significant rainfall events is uncertain and may not be practicably achievable.	The Delegated Officer is satisfied with the applicant's proposed update. Condition 8 (item 6) has been updated accordingly.
12 (Table 5)	The Frequency of Monitoring indicated in Table 5 is Monthly. The applicant has requested that an additional 'Note' be appended to the Frequency heading of Table 5, such as: Frequency[4] Note [4]: When dewatering is in operation.	The Delegated Officer is satisfied with the applicant's proposed update. Condition 12 (Table 5) has been updated accordingly.
13	Update the cross referencing of relevant conditions.	The Delegated Officer is satisfied with the applicant's proposed update. The administrational error in condition 13 has been rectified.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
Application type		
Works approval	☒	Relating instrument: • L8327/2008/2
Date application received		28 June 2021
Applicant and premises details		
Applicant name/s (full legal name/s)		Paddington Gold Pty Ltd
Premises name		Rose Dam North
Premises location		33 km north-east Menzies HWY Mining tenements, those applicable to the proposed new dewatering infrastructure: • M24/182 – Paddington Gold Pty Ltd – Expiry 14/03/2030 • M24/229 – Paddington Gold Pty Ltd – Expiry 29/05/2030 • M24/451 – Rose Dam Resources NL – Expiry 29/09/2024 • M24/838 – Paddington Gold Pty Ltd – Expiry 22/04/2031
Local Government Authority		City of Kalgoorlie-Boulder
Application documents		
HPCM file reference number:		DER2021/000378
Key application documents (additional to application form):		• Premises maps (A2021464) • Commissioning Plan (A2021470) • Supporting Document (A2021472)
Scope of application/assessment		
Summary of proposed activities or changes to existing operations.		**Works approval** <u>Construction:</u> 1. construction of a new dewatering pipeline from the two (2) Rose Dam North pits to the existing pipeline (Rose Dam South pit). <u>Operations (including time limited operations):</u> 2. mine dewatering: a) Rose Dam North Pit 1 into Rose Dam North Pit 2; b) Rose Dam North Pit 2 into Rose Dam North Pit 1; c) two (2) Rose Dam North pits into Rose Dam South Pit, with an anticipated discharge rate of 41 L/s for Stage 1 and 21 L/s for Stage 2; and d) two (2) Rose Dam North pits into Rose East Pit. Note: Rose Dam South Pit will not be in operation during the Rose Dam North dewatering phase, therefore Rose Dam North pits may require flexibility to dewater between Rose East Pit and Rose Dam South Pit. 3. storage of fuel, refuelling and routine maintenance of equipment.

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Proposed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category *6 Mine dewatering*	*1,600,000 kL per annual period*	Application to increase dewatering from 1,400,000 kL to 1,600,000 kL per annual period Assessed production capacity of the existing licence L8327/2008/2 is 1,400,000 kL per annual period, therefore a proposed increase of 200,000 kL.

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes ☐ No ☒	Referral decision No: Managed under Part V ☒ Assessed under Part IV ☐
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes ☐ No ☒	Ministerial statement No: N/A EPA Report No: N/A
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ☐ No ☒	Reference No: N/A
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ☒ No ☐	Certificate of title ☐ N/A General lease ☐ Expiry: Mining lease / tenement ☒ Expiry: Other evidence ☐ Expiry: Mining tenements, those applicable to the proposed new dewatering infrastructure: • M24/182 – Paddington Gold Pty Ltd – Expiry 13/03/2030 • M24/229 – Paddington Gold Pty Ltd – Expiry 29/05/2030 • M24/451 – Rose Dam Resources NL – Expiry 29/09/2024 Copy of 'Right to mine agreement' provided (dated 20 June 2019) • M24/838 – Paddington Gold Pty Ltd – Expiry 22/04/2031

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
Has the applicant obtained all relevant planning approvals?	Yes ☐ No ☐ N/A ☒	Approval: N/A Expiry date: N/A If N/A explain why? Premises is on Mining Tenement.
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes ☒ No ☐	CPS No: 9043/1
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes ☐ No ☒	Application reference No: N/A Licence/permit No: N/A Not required.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ☒ No ☐	Application reference No: N/A Licence/permit No: GWL151865(12)
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ☒ No ☐	Name: Goldfields Groundwater Area Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes ☐ No ☐ N/A ☒ Regional office: N/A
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes ☐ No ☒	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes ☐ No ☐ N/A ☒
Is the Premises subject to any other Acts or subsidiary regulations?	Yes ☒ No ☐	• *Environmental Protection (Controlled Waste) Regulations 2001* • *Environmental Protection (Noise) Regulations 1997* • *Environmental Protection Regulations 1987* • *Environmental Protection (Unauthorised Discharge) Regulations 2004* • *Mining Act 1978* • *Rights in Water and Irrigation Act 1914*
Is the Premises within an Environmental	Yes ☐ No ☒	N/A

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
Protection Policy (EPP) Area?		
Is the Premises subject to any EPP requirements?	Yes ☐ No ☒	N/A
Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*?	Yes ☒ No ☐	Classification: Mining Tenement (M24/227) located 345 m west of the Rose East Pit is listed as possibly contaminated – investigation required (PC–IR). Date of classification: 20/02/2020