



## Application for Works Approval

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

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**Works Approval Number** W3153/2025/1

**Applicant** Western Queen Pty Ltd

**ACN** 683 564 258

**Application number** APP-0029764

**Premises** Western Queen Gold Project  
Mining Tenements M59/208 and M59/45  
As defined by the premises map attached to the issued works approval

**Date of report** 27 February 2026

**Decision** Works approval granted

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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 W3153/2025/1 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 3 July 2025, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works relating to the re-establishment of mining at the premises. The premises is approximately 110 km. north-west of Mt Magnet.

The premises relates to the categories 5, 6 and 89 and assessed production / design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W3153/2025/1. 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 W3153/2025/1.

#### 2.2.1 Background and Existing Infrastructure

Mining at the premises has been active since the 1930's, with extraction of gold from both underground and open pits undertaken by several different companies over time.

More recently, the project was acquired by Harmony Gold Pty Ltd (Harmony) in 2002 from Equigold and placed under care and maintenance in 2008. In May 2010, Harmony Gold sold Mt Magnet Gold, including the Western Queen Project to Ramelius Resources Ltd.

Following a period of mining by Ramelius at Western Queen South, the project was rehabilitated in 2013. In 2021, the tenements associated with the Western Queen Project were acquired by Rumble Resources Ltd (Rumble). Western Queen Pty Ltd is a wholly owned subsidiary of Rumble.

#### 2.2.2 Category 5 – Dry Processing Plant

The dry processing plant will consist of crushing and screening to produce a crushed product for third party processing. It will be located immediately adjacent to the ROM pad and will also comprise a hardstand area to accommodate the mobile crushing and screening facility, crushed ore stockpile and access for heavy loading equipment and road trains for haulage.

Ore will be reclaimed from the ROM pad via front-end loaders and transported to the crushing circuit which consists of a jaw crusher, cone crusher and stacker. Ore is passed over vibrating screens to remove fine material, with oversized material reporting to jaw crushers. The crushed rock is then transported via conveyor to the secondary crushing circuit, where it is fed to the secondary crushers and tertiary screens. The product re-circulates through the secondary and tertiary circuits until it is fine enough to pass through the tertiary screens. The final product is then conveyed to an ore stockpile where it is stacked in preparation for haulage to a third party (yet to be determined) for final processing.

Waste rock will report to, and expand on, an existing (rehabilitated) waste rock landform east of the WQS pit. No wet processing will be undertaken on site, nor will any tailings be produced.

### 2.2.3 Category 6 – Mine Dewatering

As a requirement to achieve the required depths with the Western Queen South (WQS) pit for mining expansion, dewatering will be required. Several excess water management options have been identified and are described in priority order below:

1. Mine water use – road watering, dust suppression;
2. Environmental discharge to local creekline (upper tributary of the Sandford River) – reserved for fresh to brackish groundwater (<3,700 mg/L TDS);
3. Additional storage within Western Queen Central (WQC) – reserved for water salinity above 15,000 mg/L TDS;
4. Environmental discharge to the Sandford River– salinity concentrations over 200,000 mg/L TDS were measured in a surface water ponded sample in the Sandford River in April 2025 (AECOM 2025a). Discharge to the Sandford River was undertaken in the early periods of mine dewatering given limited options to develop the project with significant excess water management requirements.
5. Use of mechanical evaporators on WQC to allow more storage capacity;
6. Dedicated evaporation pond;

Importantly, prior to discharge to the creekline, all abstracted water will require retention within a suitably designed transfer pond to minimize sediments. Minimising sediment can be achieved through abstraction from production bores.

This works approval is limited to the top three options only.

#### *Discharge to WQC pit*

The WQS pit currently holds approximately 3.2 Gigalitres (GL) of water and an additional water storage capacity of about 2.4 GL to a point of 1.5 m below the pit crest. As part of the mining requirements to achieve required depths for mining expansion, the pit lake at WQS will require dewatering prior to the commencement of mining with proposed discharge to the existing WQC pit. Dewatering from WQS to WQC has occurred historically. It has been concluded that pit lake water quality in both open pits has likely undergone evapoconcentration over the estimated 10-year period as pit lake levels have recovered. The water quality between the two lakes is observed to have similar chemical composition.

Key pit lake water quality observations:

- Generally uniform salinity throughout the water column for both open pits and ranges between 18,400 mg/L TDS at the surface (<10m depth) and 31,100 mg/L TDS at a depth of 75 m.
- pH values reporting neutral to slightly alkaline.
- Sodium chloride water type.
- Elevated metals concentrations (iron, Manganese, Chromium) below 75m in WQ.
- Slight reduction in Nitrate, Nitrite below 75 m depth in WQ.

In context to the above pit lake water quality, groundwater quality for the WQS area reported an average salinity of about 2,150 mg/L TDS, neutral pH and an elevated bicarbonate compared with the pit lake water.

Simplified analytical groundwater models have been completed to determine indicative dewatering rates and maximum drawdown extents for WQS (AECOM 2026a). Based on the

modelling, an indicative reasonable case (lower-case) maximum abstraction is predicted to be about 1.0 GL/annum.

Pit lake dewatering is typically undertaken using a pontoon type pumping system. To minimize pit wall stability issues and allow groundwater to drain and pore pressure to be lowered, it is recommended the pit lake be emptied over a period of at least 90 days. Rates of dewatering over the 90 day period is proposed to be 130 kL/sec or 11,000 kL/day. Transferring about 1.0 GL from WQS to WQC will reduce the remaining storage capacity to about 1.4 GL, which allows for ongoing disposal of excess poorer quality mine water (>15,000 mg.L TDS) from WQS if required.

Based on historical records for WQC, the current pit lake level (362 m AHD) is above the assumed baseline groundwater level of about 355 m RL. This suggests groundwater is already mounded relative to the regional water table and is currently in equilibrium with WQS current pit lake level (362 m AHD). This will change as a result of water from WQS being stored in the WQC void.

There will be an expected change in the cone of depression for both pits, with WQC shrinking and WQS expanding, due to the transfer of water. Due to the hydraulic conductivity of WQC and WQS through the Western Queen Shear Zone, it is also expected that groundwater inflows to WQS will increase in the north of the pit, and possibly in the region of the existing monitoring bore.

The immediate area around WQC pit is highly degraded in terms of vegetation as a result of historical mining operations, given the baseline groundwater was about 35 mbgl, and the local vegetation has no dependency on groundwater, it is unlikely that further mounding will cause impact to local vegetation while the groundwater remains below 3 mbgl.

With a reported current pit lake level in WQC pit of 362 m AHD, the available storage volume in WQC is estimated at about 2.4 GL, 1.5 m below the current pit crest. The pipeline will traverse previously disturbed ground and will be housed in a v-drain to contain any potential spills. Flow meters and telemetry will be installed on the discharge pipeline and records of dewatering abstraction will be kept to monitor discharge volumes. Figure 1 depicts a schematic design of the proposed water transfer strategy.

Following the transfer of higher salinity (18,000 mg/L TDS) WQS pit lake stored water to WQC, it is estimated WQC will have a remaining void capacity of about 1.5 GL. With a predicted range of WQS groundwater inflows of between 2,3100 to 6,200 kL/day, a total dewatering volume is predicted to be between about 2.2 and 4.7 GL over the anticipated 1095 days of mining. Groundwater salinity in the area has previously been reported to average about 2,100 mg/L TDS (minimum 1,200 mg/L TDS, maximum of 3,700 mg/L) (AECOM 2026a).

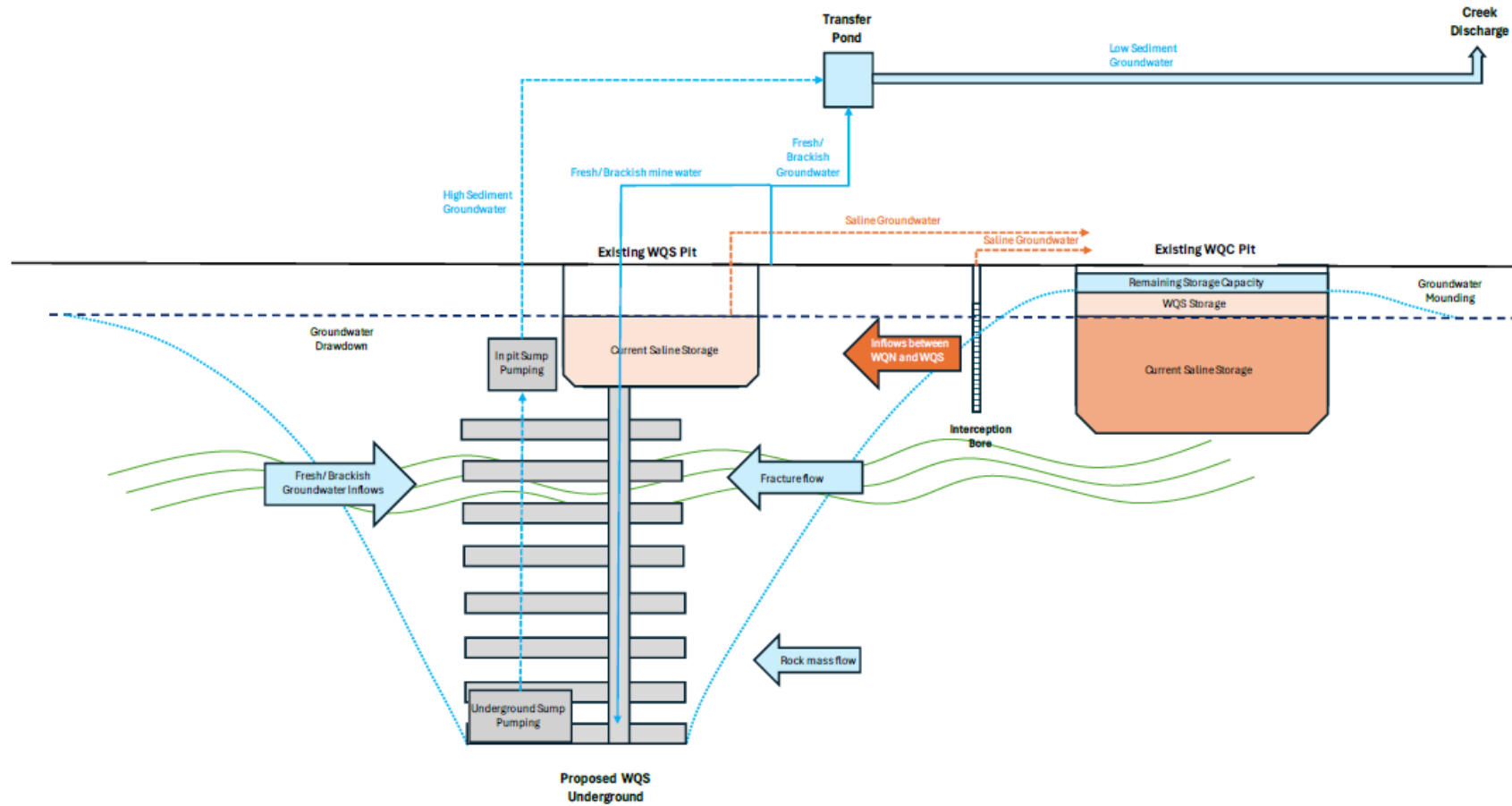


Figure 1: Conceptual water management schematic

### *Discharge to Local Creekline*

Given a predicted range of WQS groundwater inflows of between 2,100 and 6,200 kL/day, and a mine water usage (dust suppression etc) up to about 800 kL/day, the total mine water excess is expected to be between 1,300 kL/day and 5,400 kL/day, totalling 1.2 – 3.8 GL over the duration of the mining.

With the high quality (lower salinity) groundwater quality, excess groundwater is proposed to be discharged to the environment over a duration of approximately three years. As a result of mine dewatering, predicted drawdown may propagate up to 2 km from the WQS open pit. To assist mitigation of the drawdown impacts, and allow for the management of mine water, it is proposed to discharge excess water to a local creekline / drainage line within the drawdown capture zone. This creekline is unnamed but is an upper tributary of the Sandford River.

To assess the footprint length and surface water expression (wetting front) arising from discharge of water to a local creek with discharging up to 1.5 GL/annum over the duration of the project, a steady state TuFlow surface water model was used. This modelling approach uses Manning's equation<sup>1</sup> to estimate wetted perimeter, top width, velocity and water depth. This model does not consider groundwater and surface water interactions, and subsequent recharge into deeper aquifers, and loss through evapotranspiration. Therefore, the model results provide a worst-case scenario in terms of predicted wetting front extent.

Figure 2 shows the downstream extent of surface water exposure from the creek discharge under various conditions. A recent vegetation and fauna survey within the project area did not identify any significant vegetation assemblages and there is a low risk of potential terrestrial groundwater dependent ecosystems in the adjacent floodplain areas.

Modelling results show the formation of disconnected ponded areas within the ephemeral stream, with increasing separation from the discharge point. Under all simulated discharge rates (1,500 kL/day, 2,400 and 5,800 kL/day) a wetted front generally remains within the low flow channels.

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<sup>1</sup>The Mannings equation is an empirical equation that applies to uniform flow in open channels.



### 2.2.4 Category 89 – Putrescible landfill site

A Class II onsite landfill facility is planned to be established within the footprint of the Western Queen Waste Rock Landform (WRL). It is anticipated that less than 500 tonnes per year will be disposed of in the landfill. Once operational, disposal of tyres may also be proposed within the WRL.

Inert and putrescible waste will be disposed of into a series of trenches (with only one trench open at a time), excavated within the Western Queen WRL footprint. The trenches shall be approximately 50 m long x 10 m wide, with maximum depth of 5 m. There are no residential receptors in the vicinity of the prescribed premises. The landfill will be separated by at least 2 m from the highest level of the groundwater table. The active tipping face of the landfill shall always be physically restricted to a maximum length of 30m and a maximum height of 2 m.

The landfill will be covered on a fortnightly basis with sufficient quantities of Type 1 inert waste (which is readily available from the WRL), clean fill or other appropriate cover material to prevent the spread of fire and harbouring of disease vectors.

Used tyres will be disposed of within the Western Queen WRL footprint in active areas of waste rock disposal, i.e. adjacent to the active tip face.

It is expected that the operation will produce up to 500 tonnes of inert waste (including tyres) and putrescible waste per annum.

A dedicated bioremediation cell will also be established within the landfill footprint to manage any hydrocarbon contaminated material.

## 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 / operation 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 controls
<b>Construction</b>			
Dust	Dust emissions from machinery and vehicle movement during construction of infrastructure.	Air / windborne pathway	<ul style="list-style-type: none"> <li>Dust suppression on roads and mine areas via water carts and sprinklers.</li> <li>Implementation of vehicle speed restrictions to reduce dust generation on roads.</li> <li>Utilise dust suppression on product</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			<p>stockpiles and crushers/conveyors where possible.</p> <ul style="list-style-type: none"> <li>Watercart will be deployed to wet the landfill area prior to trenching, if dust is deemed a problem during construction.</li> <li>Site induction will include information on dust management.</li> </ul>
Contaminated stormwater	Hydrocarbon/chemical spills or leaks from machinery and equipment	Direct discharge to land	<ul style="list-style-type: none"> <li>All environmentally hazardous materials will be stored and handled in accordance with the Dangerous Goods Safety Act 2004 and relevant regulations, including use of bunded and sealed assembly area for hazardous chemicals (containerized) prior to offsite treatment/disposal by licenced waste contractor.</li> <li>Bunding, containment and handling will be managed in accordance with the Australian Standard 1940-2004, Storage and Handling of Flammable and Combustible Liquids, with bunds designed to contain 110% of the contents of material stored.</li> <li>Refuelling and fuel delivery inlets will be located on concrete or HDPE lined pads which will drain to a sump.</li> <li>Regular inspections of storage areas will occur to detect any leaking bunds, pipes, drums or containers.</li> <li>Spill kits will be available with employees trained in their use.</li> <li>Any spills will be cleaned up with contaminated soil remediated within the bioremediation pad or taken off-site for correct disposal.</li> <li>Surface water drainage from areas such as workshop washdown facility with the potential to release contaminants will be directed to a single washdown sump with an oily water separator.</li> </ul>
<b>Operation</b>			
Saline and hypersaline mine dewater	Dewatering pipelines	Rupture or leak of pipeline resulting in discharge to	<ul style="list-style-type: none"> <li>Dewatering pipeline will be inspected daily.</li> <li>Flow meters and telemetry will be installed on the discharge pipeline.</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
		the environment	<ul style="list-style-type: none"> <li>The pipeline will be located within bunded open trenches to contain any spillage.</li> </ul>
Saline and hypersaline mine dewater	Excess mine dewater	Dewatering from WQS Pit to WQC Pit	<ul style="list-style-type: none"> <li>Dewatering will be via a pipeline direct from the WQS Pit to the WQC Pit ensuring no adverse impacts on the surrounding environment.</li> <li>Laboratory analysis identified similar chemical composition within both pits and therefore mixing between the two pits will pose little risk.</li> <li>A high-level assessment of the propagation of predicted mounding from WQC pit reported groundwater levels are predicted to remain below about 20 mblg in the northern areas at distances of about 200 m.</li> <li>Records of dewatering abstraction will be kept, to monitor volumes being discharged into the WQC Pit.</li> </ul>
Brackish mine dewater (between 1,200 and 3,700 mg/L TDS)	Excess mine dewater	Discharge of dewater to creek line	<ul style="list-style-type: none"> <li>Transfer pond used to mitigate sediment loads prior to discharge.</li> <li>During dewater and discharge to the creek, a suitable structure shall be installed at the discharge point to reduce velocity and subsequent erosion and prevent sedimentation offsite.</li> <li>Flow meters installed at start of the pipeline and at the outfall location to allow reconciliation of flow rates and leak detection.</li> <li>Vegetation health monitoring within discharge wetting front.</li> <li>Modelling predicted that under all simulated discharge rates, a wetted front generally remains within the low flow channels.</li> <li>Proposed water quality monitoring for discharge points.</li> </ul>
Saline and hypersaline mine dewater	Excess mine dewater used for dust suppression	Direct discharge to land	<ul style="list-style-type: none"> <li>The use of discharge water for dust suppression will only be carried out in disturbed areas to avoid damage to surrounding vegetation.</li> <li>All dust suppression water trucks to use dribble bars.</li> <li>Water truck staff will be fully trained</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			in the proper use of water trucks for dust suppression.
Contaminated stormwater	Runoff from disturbed ground resulting in erosion and sedimentation	Direct discharge to land	<ul style="list-style-type: none"> <li>• Diversion of upstream drainage where practicable.</li> <li>• Containment of plant area runoff.</li> <li>• Appropriate design and rock armouring to ensure stable and non-polluting structures.</li> <li>• Installation and maintenance of waste rock landfill toe bunds and sedimentation basins/ponds.</li> <li>• Laydown and hardstand areas will be compacted and where possible, constructed away from waterways.</li> <li>• The northern stream that runs through the WQS Pit will be diverted around the pit using a drain and bund wall that has been designed to ensure it will not restrict the flow rate.</li> </ul>
Putrescible waste	Landfill	Air / windborne pathway	<ul style="list-style-type: none"> <li>• Waste will be disposed of in trenches, with only one trench open at any one time.</li> <li>• Landfill will be covered fortnightly with sufficient quantities (minimum 0.3 m) of Type I inert waste, clean fill or other appropriate material.</li> <li>• Landfill will be inspected regularly and where windblown waste is observed, this will be collected at least monthly.</li> </ul>
Leachate	Landfill	Seepage through base of landfill	<ul style="list-style-type: none"> <li>• Landfill site will be minimum 100 m from any residential receptor and at least 2 m above the highest groundwater table.</li> </ul>
Contaminated stormwater	Landfill	Stormwater runoff	<ul style="list-style-type: none"> <li>• Landfill will be constructed at least 2 m above the highest groundwater table, preferably higher on the WRD to prevent stormwater runoff entering a landfill trench.</li> <li>• Landfill will be covered fortnightly with sufficient quantities (minimum 0.3 m) of Type I inert waste, clean fill or other appropriate material.</li> </ul>

### 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 2 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 2: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Meka Station homestead	32 km north-west of the Western Queen Project. <b>Screened out due to distance from the prescribed premises.</b>
Environmental receptors	Distance from prescribed activity
Native vegetation	No threatened Flora species recorded within the Prescribed Premises.  One Priority 4 species, <i>Dodonaea amplisemina</i> was recorded within the Prescribed Premises during a 2012 survey by consultants Outback Ecology.  Vegetation mapping conducted in 2025 recorded 11 vegetation units within the Prescribed Premises, predominantly consisting of Acacia Forests and Woodlands.
Fauna	No evidence of any conservation significant species nor were any observed during the survey.
Underlying groundwater (non-potable purposes)	Generally groundwater occurs between 40 and 80 m below ground level (mbgl).  Historic groundwater quality testing from local areas near WQS indicates brackish water with average total dissolved solids (TDS) of 1,030 mg/L and neutral to slightly alkaline pH ranging from 7.3 7.55.  Groundwater in the WQS pit is currently at approximately 30 mbgl and flows to the north-northeast. Based on in-situ water quality sampling carried out in 2025, pit lake salinity is approximately 18,400 mg/L TDS for WQS and 18,800 mg/L TDS for the WQC pit.  Regional groundwater flow generally follows topography and flows to regional low-lying areas in the west associated with present day drainages and ultimately discharges towards the north-western Sandford River.
Surface water bodies	No permanent wetlands or ephemeral water bodies within the Prescribed Premises. There are

	<p>several minor ephemeral drainage channels within the Prescribed Premises, which drain northwest to the Sanford River, which is a tributary of the Murchison River. This includes the creekline proposed as a dewatering discharge option.</p>
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## 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 3.

Works approval W3153/2025/1 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. 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 and operation**

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Construction</b>								
Placement of screen and associated equipment including vehicle movements (reversing beepers). Construction of stormwater channels and stormwater sump. Installation of dewatering pipelines and pumps. Construction of landfill trenches and associated vehicle movement.	Dust	<b>Pathway:</b> Air/windborne pathway <b>Impact:</b> Health and amenity	Surrounding native vegetation	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1 - Construction and design requirements Conditions 2 and 3 – Environmental Compliance Reporting conditions.	The Delegated Officer is satisfied with the proposed controls for dust during the construction phase. Standard construction and design requirement conditions have been included in the works approval which include applicant proposed controls.  Standard environmental compliance reporting conditions apply.
	Contaminated stormwater from hydrocarbon leaks / spills	<b>Pathway:</b> Direct discharge <b>Impact:</b> Quality of water may be impacted with flow on decline in surrounding ecosystems.	Surrounding native vegetation Local creekline	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1 – Construction and design requirements Conditions 2 and 3 – Environmental Compliance Reporting conditions.	The Delegated Officer is satisfied with the proposed controls for potential release of contaminated stormwater during the construction phase. Standard construction and design requirement conditions have been included in the works approval which include applicant proposed controls.

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
								Standard environmental compliance reporting conditions apply.
<b>Operation</b> (including time-limited-operations operations)								
Screening, crushing, unloading, loading and storage of material  Vehicle movements	Dust	<b>Pathway:</b> Air/windborne pathway <b>Impact:</b> Health and amenity	Surrounding native vegetation	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations	The Delegated Officer is satisfied with the applicant's proposed controls and has included them into conditions to ensure dust is managed during time limited operations.
	Contaminated stormwater	<b>Pathway:</b> Overland runoff <b>Impact:</b> Ecosystem disturbance or impacting surface water quality	Surrounding native vegetation Local creekline	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations	The Delegated Officer is satisfied with the applicant's proposed controls and has included them into conditions to ensure contaminated stormwater is managed during time limited operations.
Discharge of mine dewater into creekline	Mine dewater	<b>Pathway:</b> Direct discharge <b>Impact:</b> erosion and possible impact to local water quality with flow on decline in surrounding ecosystem	Local creekline	Refer to Section 3.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations Condition 6 – Monitoring during time limited operations Condition 7 – Vegetation monitoring during time	The Delegated Officer is satisfied with the applicant's proposed controls and has included them into conditions to ensure erosion is prevented as well as monitoring of water quality and

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Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
							limited operations Conditions 8 and 9 – Time limited operations compliance reporting	vegetation quality. Reporting of time limited operations is required.
Discharge of mine dewater from WQS to WQC – seepage through base and walls	Mine dewater (saline)	<b>Pathway:</b> Migration of seepage through soil and groundwater, potentially resulting in mounding and impacted groundwater, interaction with vegetation and root zone. <b>Impact:</b> Death or degraded health of surrounding vegetation	Pit lake and surrounding groundwater Surrounding native vegetation	Refer to Section 3.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations Condition 6 – Monitoring during time limited operations Conditions 8 and 9 – Time limited operations compliance reporting	The Delegated Officer is satisfied with the proposed controls for potential groundwater mounding associated with pit to pit dewatering. Monitoring of dewatering volumes as well as pit lake levels have been included in the time limited operations monitoring requirements.
Leaks in mine dewater transfer pipelines between WQS and WQC, as well as from the transfer dam to the creekline discharge point.	Mine dewater	<b>Pathway:</b> Direct discharge to land and contact with vegetation <b>Impact:</b> Death or degraded health of nearby vegetation	Surrounding native vegetation	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations	Construction and design requirement conditions as well as pipeline management conditions have been included in the works approval using the applicant's proposed controls.
Leaks or overtopping of mine dewater storage transfer dam	Mine dewater	<b>Pathway:</b> Direct discharge to land and contact with vegetation <b>Impact:</b> Death or degraded health of nearby vegetation	Surrounding native vegetation	Refer to Section 3.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations	N/A

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Use of dewater for dust suppression	Mine dewater	<b>Pathway:</b> Direct discharge to land and contact with vegetation <b>Impact:</b> Death or degraded health of nearby vegetation	Surrounding native vegetation	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations	The proposed controls are deemed sufficient, and the Delegated Officer has added a general requirement to ensure water used for dust suppression is applied in a manner to avoid damage to surrounding vegetation.
Operation of putrescible landfill	Dust and windblown waste	<b>Pathway:</b> Air/windborne pathway <b>Impact:</b> Smothering of native vegetation	Surrounding native vegetation	Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations	N/A
	Leachate	<b>Pathway:</b> Direct discharge to land via seepage <b>Impact:</b> Contamination of groundwater	Groundwater	Refer to Section 3.1	C = Minor L = Possible <b>Medium Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations	N/A
	Contaminated stormwater	<b>Pathway:</b> Direct discharge <b>Impact:</b> Quality of water may be impacted with flow on decline in surrounding ecosystems.	Surrounding native vegetation	Refer to Section 3.1	C = Slight L = Possible <b>Low Risk</b>	Y	Condition 5 – Infrastructure and equipment requirements during time limited operations	N/A

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 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 8 December 2025	Refer Appendix 1	Refer Appendix 1
Local Government Authority advised of proposal on 8 December 2025	None received	N/A
Wajarri Yamaji Aboriginal Corporation advised of proposal on 8 December 2025	None received	N/A
Applicant was provided with draft documents on 15 January 2025	Refer to Appendix 2	Refer to Appendix 2

## 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. AECOM 2026a, *Western Queen Groundwater Assessment, Western Queen Dewatering*, Prepared by AECOM Australia Pty Ltd for Rumble Resources Ltd. 2026
2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
5. Rumble Resources Ltd, 2025, *Western Queen Project, Works Approval Supporting Document*, Perth, Western Australia.

## Appendix 1: Summary of public submissions

Summary of public submission comment	Departments response
Concerns raised regarding the submission of a Ground Control Management Plan and slope-stability sensitivity analysis that incorporates the Hoek-Brown parameters and addresses the orientation bias in structural data.	Matters raised in submissions that are outside the scope of the assessment of this application, or the provisions Part V of the EP Act are not further addressed in this assessment.
Concerns regarding transmissivity and hydraulic conductivity within the groundwater and request a formal Groundwater Operating Strategy to meet thresholds from Water Act 2000.	Groundwater Operating Strategies are not regulated under Part V of the EP Act 1986. Category 6 is the regulation of dewatering and the discharge of mine dewater into the environment, in this instance to a pit and creek line. The risk assessment for this activity is detailed in section 3 of this Decision Report.
A submission regarding the need for comprehensive water-quality budget for the proposed discharge, demonstrating that downstream salinity increases will not exceed 200 mg/L TDS for freshwater ecosystems and if necessary for the applicant to propose blending with low-salinity water prior to discharge.	The discharge of dewater into the creek line is risk assessed in the body of this Decision Report, with stipulated conditions on the works approval including monitoring and operational requirements under time limited operations to ensure any impact is acceptable. Refer to Table 3 of this Decision Report for detail.
The request for a full Native Vegetation Clearing Permit with a clearing-hierarchy justification, a revegetation and offset plan, and evidence of compliance with clearing principle.	Matters raised in submissions that are outside the scope of the assessment of this application, or the provisions Part V of the EP Act are not further addressed in this assessment.
Mandate a targeted fauna survey for Malleefowl and other cryptic species.	<p>A fauna survey was included with the application and no evidence of the presence of Malleefowl, including nesting mounds, tracks or other signs were recorded within the survey area. The majority of the habitat within the survey area was considered unsuitable for breeding due to the relatively high level of disturbance. It was concluded that a breeding population of Malleefowl is unlikely to be present within the survey area.</p> <p>Given these results, the likelihood of impact on this species from any of the prescribed activities is low, and no conditions are required on the works approval.</p>

<p>Request for a regional cumulative water-use assessment that incorporates existing licences, climate variability scenarios and downstream water-user rights.</p>	<p>Matters raised in submissions that are outside the scope of the assessment of this application or the provisions Part V of the EP Act are not further addressed in this assessment.</p>
<p>Specify monitoring requirements for sediment-basin performance, dust generation and ecological indicators through life-of-mine and for at least ten years post-closure.</p>	<p>The assessment focuses on point source emissions from the prescribed activities with appropriate monitoring determined as an outcome. Refer to section 3 of the Decision Report to see appropriate monitoring to be applied to the approval.</p>

## Appendix 2: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
1 – Table 1, item 1	The applicant was requested to provide the model of the processing plant. The applicant provided details of the mobile crushing and screening plant layout and design notes in Attachment 1 of their response.	Details of the plant infrastructure have been included in Table 1 of the works approval.
1 – Table 1, item 2	The applicant was requested to provide the design details for the sedimentation ponds. This has been provided in Attachment 2.	Details of the sedimentation ponds has been included in Table 1 of the works approval.
1 – Table 1, item 3	The applicant was asked to confirm if there are two ponds (one for creek line and one for pit dewatering).  The applicant confirmed there is only one transfer pond, which is to be used for the creek line discharge. No transfer pond is required for pit lake dewatering. Attachments 3, 4 and 5 have been provided for further details on dewatering schedule, designs of ponds and pipelines.	Table 1 has been updated to reflect this, as has section 2 of the decision report.  The Premises Map and site plan depicted in Figure 1 of the works approval has been replaced with an updated figure, provided as Attachment 5.
1 – Table 1, item 3	The applicant was asked to provide the storage capacity of the transfer pond.  The applicant confirmed pond capacity is 22,000 m <sup>3</sup> within 0.5m of the outer wall (up to 3 days of storage). Attachment 4 provides transfer pond layout and design.	Table 1 has been updated to include the storage capacity of the transfer pond.
1 – Table 1, item 3	The applicant was asked to provide design details for this pond. This has been provided in Attachment 4.	Table 1 has been updated to include further design details of the transfer pond.
1 – Table 1, item 3	The applicant was asked where the transfer pond will be located within the prescribed premises. Attachments 4 and 5 have been provided with an amended site plan included.	Figure 1 has been updated in the works approval showing location of the transfer pond.
1 – Table 1, item 4	The applicant was requested to provide a map with the dewatering pipeline route depicted on it. Attachment 4 provides the pipeline route layout.	Figure 1 has been included in the works approval showing the pipeline route.

Condition	Summary of applicant's comment	Department's response
1 – Table 1, item 6	The applicant was asked to confirm the design of the outfall structure at the creek line discharge point.	The design of the outfall structure has now been included in Table 1.
2 – Table 2, item 3	The applicant was requested to provide a map with the dewatering pipeline route depicted on it. Attachment 4 provides the pipeline route layout.	Figure 1 has been updated in the works approval showing the pipeline route.
2 – Table 2, item 6	The applicant was asked where the transfer pond will be located within the prescribed premises. Attachments 4 and 5 have been provided with an amended site plan included.	Figure 1 has been updated in the works approval showing location of the transfer pond.
9 – Table 6, item 1	The applicant was asked to confirm vegetation monitoring locations. Attachments 5 and 7 have been provided and include locations of monitoring sites and location of the vegetation monitoring sites in relation to mapped vegetation units. Attachment 8 provide the co-ordinates for the monitoring points.	The location of vegetation monitoring points has been included in Table 6 of the works approval. Figure 1 has been updated in the works approval and depicts these monitoring points.
Prescribed premises category descriptions	Category 5 listed as production capacity of 16,000,000 tonne per annum.  The applicant has requested this is reduced to 1,000,000 tonnes as the plant is based on a 1,000,000 tonne production capacity based on the design of the plant. Attachment 1 provides details on the design of the plant.	Throughput noted and updated.
7 – Table 4, authorised discharge points	The TDS limit for dewater to the creekline is listed at <2,100 mg/L. The applicant has requested this is changed to ≤3,700 mg/L as the TDS range from previous measurements is 1,200 mg/L to 3,700 mg/L.	The Department considers the TDS limit of ≤3,700 mg/L to be acceptable due to the measured rang of this amount. The limit does not change the risk of discharge to the creekline, which remains as medium, with conditions in place.
Figure 2	Figure 2 of conceptual drainage design including surface water retention ponds has been replace with updated figure from the 2026 surface water report as provided in Attachment 9.	Figure 2 has been replaced with the figure provided in Attachment 9.
Figure 3	Figure 3 of dewatering discharge locations has been replaced with updated figure in the 2026 groundwater report provided in Attachment 10.	Figure 3 has been replaced with the figure provided in Attachment 10.
Figure 4	Figure 4, dewatering monitoring locations, has been replaced with updated figure from the 2026 surface water report, provided in Attachment 11.	Figure 4 has been replaced with the figure provided in Attachment 11.

Condition	Summary of applicant's comment	Department's response
Decision Report – Figure 1	Figure 1 in the Decision Report has been replaced with updated figure from the 2026 surface water report, provided in Attachment 12.	Figure 1 has been replaced with the figure provided in Attachment 12.
Decision Report – Figure 2	Figure 2 of the predicted wetting fronts of creek line, has been replaced with updated figure from the 2026 groundwater report, provided in Attachment 10.	Figure 2 has been replaced with the figure provided in Attachment 10.
Surface Water Assessment Report	An updated Surface Water Assessment Report (AECOM 2026a) has been submitted, as provided in Attachment 13.	<p>Due to the report being updated, some amounts regarding discharge rates in the decision report have changed. All changes have been reflected into the report and do not impact on the risk assessment.</p> <p>The reference has been updated.</p>
Groundwater Assessment Report	An updated Groundwater Assessment Report (AECOM 2026b), has been provided in Attachment 14.	<p>Due to the report being updated, some amounts regarding discharge rates in the decision report have changed. All changes have been reflected into the report and do not impact on the risk assessment.</p> <p>The reference has been updated.</p>
Western Queen North Pit	Western Queen North Pit referred to within the works approval and Decision Report has been renamed to Western Queen Central (WQC) pit.	References to WQN have been changed to WQC throughout the works approval and decision report.