Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Licence

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

Licence Number	L3236/2026/1
Applicant	Horizon Minerals Limited
ACN	007 761 186
Application Number	APP-0033633
Premises	Cannon Gold Project Legal description M25/333, M25/357, L25/48, L26/270, M26/41 and M26/534 As defined by the Premises map attached to the issued licence.
Date of Report	18 May 2026
Decision	Licence 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, licence L3236/2026/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Decision Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Application summary and overview of premises

On 20 February 2026, Horizon Minerals Limited (the applicant) submitted an application for a licence to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The application is to seek a licence relating to mine dewatering activities of up to 100,000 tonnes per year [i.e., Category 6 under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations)] at the Cannon Gold Project (the premises). The premises is approximately 30 km northwest of the City of Kalgoorlie-Boulder.

The relevant infrastructure for the proposed infrastructure includes a 12 km long high-density polyethylene (HDPE) dewatering pipelines and associated pumping infrastructure, as well as a turkeys nest dam and three 50,000 L polyethylene mine dewater storage tanks.

The applicant intends to dewater the Cannon pit and transfer the mine dewater via the constructed pipeline to be discharged at the Golden Ridge pit. The dewatering pipeline has been constructed under works approval W6754/2022/1, which was granted to the applicant on 2 March 2023. Construction was completed in September 2024, with time limited operation being undertaken until March 2025. The department has completed its assessment of the relevant compliance reports.

The pipeline has been equipped with a Magflow 5100 flowmeter (at both ends) and leak detection system that remotely shuts off the transfer pump upon identifying a flow difference. The pipeline was installed within V-drains, with up to 10 sumps constructed at topographical low points along the pipeline route. Each sump has been appropriately sized to contain potential spills for a maximum duration of 24 hours (assuming flow rate of 13 L/s).

The applicant did not seek a licence following completion of time limited operation under works approval W6753/2022/1, as the dewatering throughput was significantly reduced following initial dewatering, such that it did not meet the minimum production capacity for Category 6 activities. Currently, the applicant has applied for a licence as a precaution to ensure operations are fully compliant with the EP Act, should future mine dewatering throughput be higher than predicted, including any emergency discharges required due to potential inflow of stormwater from rainfall events above the 1-in-100-year average.

Once mining commences at the Golden Pit, it is expected that mine dewatering volumes will be insufficient to meet operational water demands, including for underground mining and dust suppression of the haul road on miscellaneous licence L25/48. Consequently, the applicant intends to reverse pipeline flow when required, to transport mine dewater from Golden Ridge pit back to Cannon gold operations, where it will be stored in three mine storage water tanks and a turkeys nest dam for site use.

The applicant has proposed to construct the mine storage tanks and turkeys nest dam at the northern edge of the Cannon pit under licence L3236/2026/1. The mine storage tanks will have

a storage capacity of 50,000 L each (with a total capacity of 150,000 L) and be made using polyethylene. The tanks will be interconnected and include a level limit control to divert any excess water back into the adjacent Cannon pit.

The turkeys nest dam will be constructed next to the mine storage tanks and have nominal dimensions of 12 metres x 12 metres and 2.25 metres deep and be HDPE lined. A dedicated overflow pipeline will be installed to direct excess water back into the adjacent Cannon pit.

The premises relates to the category and assessed design capacity under Schedule 1 of the EP Regulations which are defined in licence L3236/2026/1. 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 2017) are outlined in licence L3236/2026/1.

2.2.1 Pit water quality and mine dewater discharge impacts to the groundwater

Water quality assessment has been undertaken at both Cannon Pit and the Golden Ridge pit in 2022, and a production bore (Chappel bore) located approximately 3 km north of the Golden Ridge pit, to identify the characteristics in the pit lake water and the groundwater in the local aquifer (Table 1).

Monitoring results indicated that water quality at both pit lakes were similar, containing hypersaline water. The average salinity of the Cannon pit and Golden Ridge pit was 42,600 mg/L and 49,400 mg/L total dissolved solids (TDS), respectively. Pit water pH ranged between 7.0 and 8.0 pH units. Overall, the hydrochemistry of both pit lakes was found to be similar.

Table 1: Water quality at the Cannon pit, Golden Ridge pit, and Chappel bore

Sample location and year		Cannon Pit Lake (2022)	Golden Ridge Pit Lake (2022)	Chappel Bore (2020)
Water quality parameter	**Unit**			
pH	pH unit	7.97	7.85	6.95
Electrical Conductivity @25°C	µS/cm	65,000	73,000	64,000
Total Dissolved Solids @180°C	mg/L	53,000	59,000	50,700
Hydroxide Alkalinity as $CaCO_3$	mg/L	<1	<1	<1
Carbonate Alkalinity as $CaCO_3$	mg/L	<1	<1	<1
Bicarbonate Alkalinity as $CaCO_3$	mg/L	223	182	653
Total Alkalinity as $CaCO_3$	mg/L	223	182	653
Sulphate as SO_4	mg/L	5750	4740	3480
Chloride	mg/L	22400	26800	23000
Calcium	mg/L	578	1370	1140
Magnesium	mg/L	2550	2510	1880
Sodium	mg/L	12800	16700	1380
Potassium	mg/L	235	162	111
Aluminium	mg/L	<0.05	0.13	<0.10
Antimony	mg/L	<0.005	<0.01	-

Sample location and year		Cannon Pit Lake (2022)	Golden Ridge Pit Lake (2022)	Chappel Bore (2020)
Water quality parameter	**Unit**			
Arsenic	mg/L	0.008	0.025	0.024
Beryllium	mg/L	<0.005	<0.01	-
Barium	mg/L	0.070	0.074	-
Cadmium	mg/L	0.0006	0.0021	0.0014
Chromium	mg/L	<0.005	<0.010	<0.10
Cobalt	mg/L	<0.005	0.019	-
Copper	mg/L	<0.005	<0.010	-
Lead	mg/L	<0.005	<0.010	<0.10
Manganese	mg/L	0.018	0.486	3.74
Molybdenum	mg/L	0.042	<0.010	-
Nickel	mg/L	0.126	0.105	-
Selenium	mg/L	<0.05	<0.10	<0.10
Silver	mg/L	<0.005	<0.010	-
Uranium	mg/L	<0.005	<0.010	-
Zinc	mg/L	<0.025	<0.050	2.09
Boron	mg/L	16.8	19.6	-
Iron	mg/L	<0.25	<0.50	1.66
Mercury	mg/L	<0.0002	<0.0002	<0.0002
Ammonia as N	mg/L	0.24	0.24	0.17
Nitrite as N	mg/L	0.02	<0.01	<0.01
Nitrate as N	mg/L	0.55	0.07	<0.01
Nitrite + Nitrate as N	mg/L	0.57	0.07	<0.01
Total Phosphorous as P	mg/L	<0.02	0.03	<0.02
Reactive Phosphorous	mg/L	<0.01	<0.01	<0.01

As defined in the *Goldfields Groundwater Area Management Plan 1994* (WAWA 1994), groundwater in the area is used for the purpose of mining related activities including mineral processing, and not suitable for human or stock use. As the water quality in the pit lakes and the local aquifer are similar in hydrochemistry, no significant changes to groundwater quality associated with the transfer and discharge of pit lake water between Cannon pit and Golden Ridge pit is likely to occur.

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 2017).

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 2 below. Table 2 also details the proposed control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 2: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Construction of turkeys nest dam and mine water storage tanks	Air/windborne pathway	• Vehicle speed limits will be enforced on haul roads; and • Dust suppression (water truck) on haul roads as required.
Noise			No controls proposed.
Operation			
Dust	Vehicle movements	Air/windborne pathway	• Vehicle speed limits will be enforced on haul roads; and • Dust suppression (water truck) on pit ramp, ROM pad and haul roads as required.
Noise			No controls proposed.
Hypersaline mine dewater	Operation of dewater pipelines and mine water storage tanks	Rupture of pipeline causing hypersaline water discharge into the environment.	• Pipeline contained within an open v-drain, with earthen bund, providing secondary containment along the length of the pipeline route; • Leak detection maintained to monitor water transfer; and • Visual inspection of the transfer pipeline to be undertaken daily (during active dewatering).
	Dewatering discharge into Golden Ridge Pit	Seepage of mine dewater through base and walls of the	No controls proposed.

Emission	Sources	Potential pathways	Proposed controls
		pit to soil and groundwater.	
		Overtopping of Golden Ridge pit.	• Daily visual inspection to ensure freeboard limits maintained; and • A freeboard limit of at least 0.5 metres below the pit crest.
	Operation of mine water storage tanks	Overtopping of mine water storage tanks	• Tanks will be equipped with water level limit to divert excess water into Cannon open pit.
	Operation of turkeys nest dam	Overtopping of dam.	• Overflow pipeline installed to divert excess water into Cannon open pit; and • Daily inspections of dam to ensure freeboard limit.
		Seepage of water via ruptured liner.	• Daily inspections.
	Use of hypersaline mine dewater for dust suppression	Direct discharge to land.	• Dewater activities limited to trafficked areas only.
Hydrocarbons (eg. Hydraulic oil or diesel)	Mobile equipment maintenance and servicing activities Storage and use of hydrocarbons and chemicals	Spills or leaks to ground, overflow during filling and/or breach of containment, resulting in direct discharge.	No controls proposed.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessment* (DWER 2017), the Delegated Officer has excluded employees, visitors and contractors of the applicant's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental siting* (DWER 2016)).

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
City of Kalgoorlie-Boulder	Approximately 12 km northwest of the Golden Ridge pit (discharge pit). **Note:** Screened out as a receptor due to separation distance

Hampton Hill Homestead	Approximately 7km North of Cannon Gold Project **Note:** Screened out as a receptor due to separation distance
Environmental receptors	**Distance from prescribed activity**
Threatened/Priority Fauna	Inactive and active Malleefowl mounds have been recorded within and around the premises. A Malleefowl-targeted survey conducted in 2022 within L26/270 (pipeline route) did not find evidence of Mallefowl activity and concluded it unlikely that the area was used for breeding.
Surface water	Stream flow in the area is ephemeral and associated with significant rainfall events, 6 ephemeral streams intersect with the premises boundary. No permanent watercourses intersect with the premises boundary. A series of hypersaline, non-perennial lakes are located 6.6km southwest of the Golden Ridge pit (discharge pit).
Groundwater	The premises is located within the Goldfields Groundwater Area proclaimed under *Rights in Water and Irrigation Act 1914.* Groundwater is considered hypersaline at 30,000 to 150,000 mg/L Total Dissolved Solids (TDS). The regional standing water level (SWL) is estimated to be about 50 meters below ground level (mbgl) (Rockwater, 2022).
Native vegetation	Native vegetation is present within and surrounding the premises boundary and is predominately open woodland. There are no conservation significant ecological communities.

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk assessments* (DWER 2017) 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 licence 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 4.

Licence L3236/2026/1 that accompanies this Decision Report authorises emissions associated with the operation of the Premises i.e. mine dewatering activities.

The conditions in the issued Licence, as outlined in Table 4 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4: Risk assessment of potential emissions and discharges from the Premises during construction and operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/ Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Construction of turkeys nest dam and mine water storage tanks	Dust	Air/windborne pathway causing impacts to health and amenity	Localised vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 12	Standard conditions have been included in the licence, relating to dust suppression. As there is a lack of pathway to human receptors, the applicant's proposed controls are sufficient to manage dust emissions on nearby vegetation. Additional regulatory controls are not required.
	Noise	Air/windborne pathway causing disturbance to malleefowl breeding	Malleefowl (Threatened fauna)	None proposed.	C = Slight L = Unlikely **Low Risk**	Y	N/A	The construction site is surrounded by heavily disturbed areas with constant machinery activities. The nearest observed Malleefowl location is over 1km to the north west and unlikely to be impacted by noise from the construction of the turkeys nest dam. Based on the lack of pathway to nearby human receptors, noise can be adequately managed through general provisions of the *Environmental Protection (Noise) Regulations 1997*.
Operation								
Vehicle movements related to activities of mine dewatering operation	Dust	Air/windborne pathway causing impacts to health and amenity	Localised vegetation	Refer to Section 3.1	C = Slight L = Rare **Low Risk**	Y	N/A	N/A
	Noise	Air/windborne pathway causing disturbance to malleefowl breeding	Malleefowl (Threatened fauna)	None proposed.	C = Slight L = Unlikely **Low Risk**	Y	N/A	The premises is surrounded by heavily disturbed areas with constant machinery activities. The nearest observed Malleefowl location is over 1km to the north west and unlikely to be impacted by noise from the operation of mine dewatering infrastructure. Based on the lack of pathway to nearby human receptors, noise can be adequately

Risk Event					Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/ Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
								managed through general provisions of the *Environmental Protection (Noise) Regulations 1997*.
Operation of dewatering pipelines and mine water storage tanks	Hypersaline mine dewater	Rupture of pipeline causing hypersaline water discharge into the environment, causing soil contamination and plant stress or death	Localised soils and vegetation	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Y	Condition 1	Licence Holder controls have been included in operational requirements in the licence.
Dewatering discharge into Golden Ridge Pit		Seepage of mine dewater through base and walls of the pit to soil and groundwater, causing contamination of groundwater and groundwater mounding	Groundwater Localised vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1 Condition 2 Condition 4	Licence Holder controls have been included in operational requirements in the licence.
		Overtopping of Golden Ridge pit, causing soil and groundwater contamination and plant stress or death	Groundwater Localised soils and vegetation	Refer to Section 3.1	C = Moderate L = Rare **Medium Risk**	Y	Condition 3 Condition 4	Licence Holder controls have been included in operational requirements in the licence.
Operation of mine water storage tanks		Spills / leaks of mine dewater storage tanks causing hypersaline water discharge into the environment, causing soil contamination	Localised soils and vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1 Condition 12	Licence Holder controls have been included in operational requirements in the licence.

Risk Event					Risk rating[1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source/ Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
		and plant stress or death						
Operation of turkeys nest dam		Overtopping of dam, causing soil contamination and plant stress or death.	Localised soils and vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1 Condition 12	Licence Holder controls have been included in operational requirements in the licence.
		Seepage through dam liner, causing soil and groundwater contamination and plant stress or death.	Groundwater Localised soils and vegetation	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	Condition 1 Condition 12	Licence Holder controls have been included in operational requirements in the licence.
Use of hypersaline mine dewater for dust suppression		Direct discharge to land	Localised soils and vegetation	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	N/A	Condition 1	The applicant is proposing to use hypersaline mine dewatering effluent for dust suppression within the premises boundary. Low risk on site impacts may occur from spray drift of hypersaline water causing vegetation distress or death. A condition has been added to the licence to ensure the applicant avoid impact to native vegetation along haul roads and open areas.
Mobile equipment maintenance and servicing activities. Storage and use of hydrocarbons and chemicals.	Hydrocarbons (eg., Hydraulic oil or diesel)	Spills or leaks to ground, overflow during filling and/or breach of containment, resulting in direct discharge, causing soil and groundwater contamination and plant stress or death	Groundwater Localised soils and vegetation	None proposed.	C = Slight L = Possible **Low Risk**	N/A	N/A	Infrastructure at the premises includes self-bunded diesel fuel tank. Possible hydrocarbon spills/discharge can occur through mobile equipment, during maintenance and servicing, and storage. Risk of hydrocarbons spills has been determined to be low and adequately regulated by the *Environmental Protection (Unauthorised Discharges) Regulations 2004.*

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Guideline: Risk assessments (DWER 2017).

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

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website (23 March 2026)	No comments received.	N/A
Local Government Authority (City of Kalgoorlie-Boulder) advised of proposal (23 March 2026)	Comments received on 2 April 2026, relating to: 1. Mosquito breeding risk associated with storage tank, Turkeys Nest dam and pipelines (during leaks); 2. Ensuring workshop and fuel storage do not cause discharge of hydrocarbons. 3. Ensuring there is no harmful discharge into the environment (e.g., arsenic, silica), if water dries out. 4. Ensuring protection of workers from inhaling dust particles or airborne droplets of salts of metals. 5. Where an accommodation village is constructed near or within the premises, that there is sufficient noise barrier from ongoing dewatering equipment. 6. Ensuring potable water pipes to offices and onsite amenities are not impacted by dewatering pipelines.	The department acknowledges the comments received, noting that employees, visitors, and contractors of the applicant is excluded from this assessment (e.g., mosquito breeding, accommodation village, potable water supply), as protection of these parties is provided for under other state legislation. The department also considered that the nearest human receptor is the Hampton Hill homestead, located approximately 7 km north of the premises. The proposed activities and associated controls have been assessed and conditioned for managing the risk of pipeline failure, overtopping, discharge of mine dewater to open pit environment, and hydrocarbon spillage. Discharge of hydrocarbons are also regulated under the *Environmental Protection (Unauthorised Discharges) Regulations 2004*.
Applicant was provided with draft documents (14 May 2026)	The applicant responded on 18 May 2026, with no comments on the draft documents and requested the remainder of the consultation period be waived.	Noted.

5. Conclusion

Based on the assessment in this Decision Report, the Delegated Officer has determined that a licence 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) 2016, *Guideline: Environmental siting*, Joondalup, Western Australia.
3. DWER 2017, *Guideline: Risk assessments*, Joondalup, Western Australia.
4. Rockwater 2022, *Cannon Pit Dewatering Investigation*, Wembley, Western Australia.
5. Water Authority of Western Australia (WAWA) 1994, *Goldfields Groundwater Area Management Plan,* Leederville, Western Australia.