Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Works Approval

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

Works Approval Number	W6897/2024/1
Applicant	Mt Ida Gold Pty Ltd
ACN	45 106 608 986
File number	DER2023/000715
Premises	Mt Ida Lithium Project Mining tenements M29/2 and M29/165 Shire of Menzies, WA
Date of report	28 May 2024
Decision	Works approval granted

Christine Pustkuchen

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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 and operation of the premises. As a result of this assessment, works approval W6897/2024/1 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 6 November 2023, Mt Ida Gold Pty Ltd submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act). Mt Ida Gold Pty Ltd (Mt Ida) is a subsidiary of Delta Lithium Limited (Delta Lithium).

The application is to undertake construction and time limited operations for:

- a mobile crushing and screening plant with a throughput of 2 million tonnes per annum (Mtpa);
- movement of historic tailings, currently obstructing the project development area, to the waste rock landform (WRL);
- turkey's nest; and
- a class II putrescible landfill facility for disposal of 25 tonnes per annum (tpa) of waste.

Proposed infrastructure locations are shown in Figure 1 below. The proposed mine layout (Figure 3) will include two pits, a WRL, run of mine (ROM) pad, low grade stockpiles, topsoil stockpiles and other mine infrastructure.

The premises relates to the categories and assessed production / design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6897/2024/1. 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 W6897/2024/1.

Figure 1 Prescribed premises boundary and locations of prescribed infrastructure.

Figure 2 Prescribed activities and location of turkey's nest

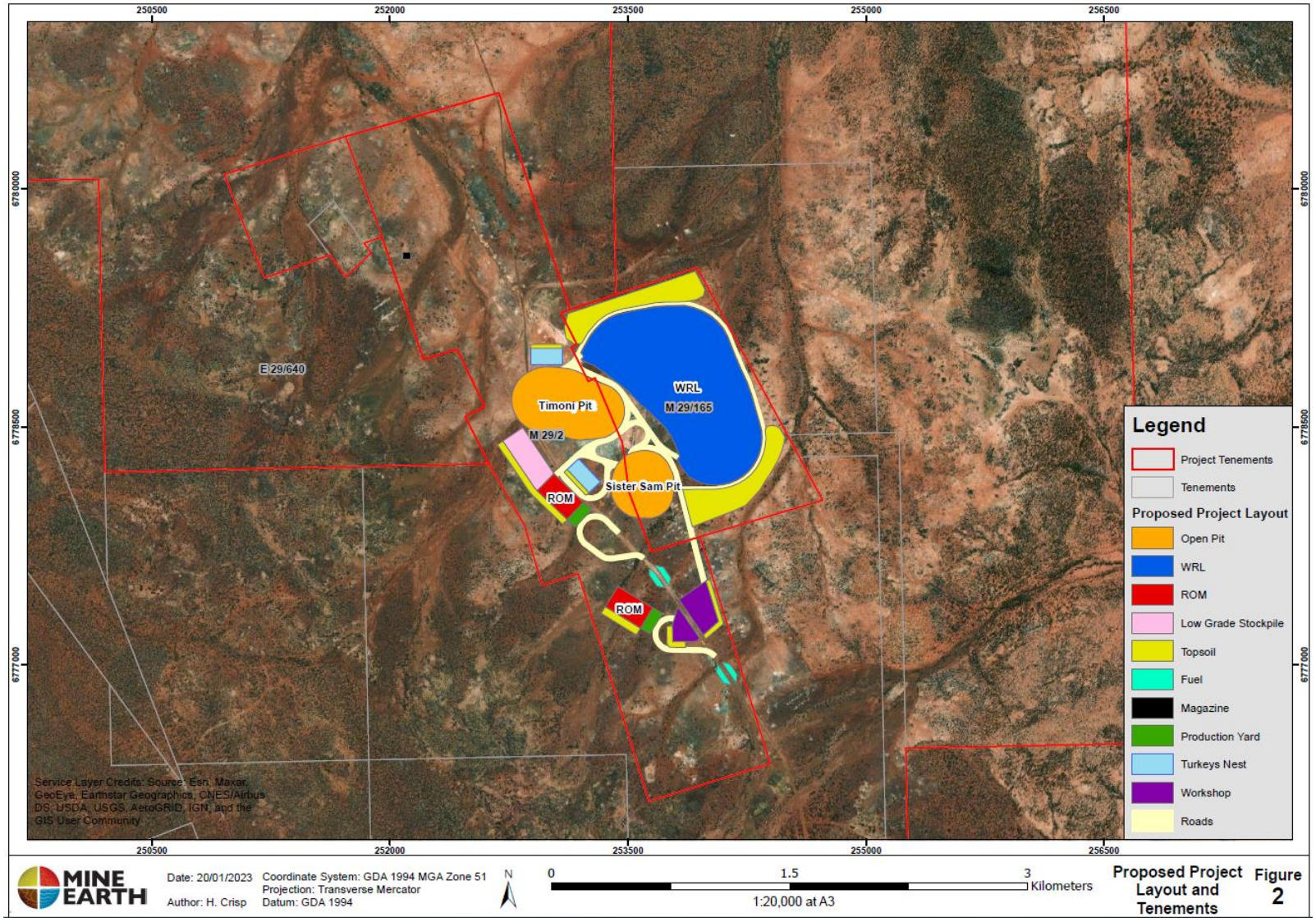

Figure 3 Proposed mine layout and tenements.

2.2.1 Category 5 activities

The proposal includes:

- construction of a mobile crushing and screening facility to produce an estimated 2 Mtpa lithium ore;
- movement of historic tailings obstructing the current project development area to the waste rock landform (WRL) footprint, to be encapsulated by waste rock; and
- construction and operation of a turkey's nest storing saline water for the purpose of dust suppression

Crushing and screening plant

Mined ore will be loaded into the mobile crusher and the screened product will be stockpiled and loaded into trucks as required. Course material will be stockpiled beside the plant and reused as fill material. The plant will operate 24 hours, 7 days per week for a 2-year period. Once the direct shipping ore (DSO) operations are completed, a beneficiation plant will then be constructed (not included within the scope of this application).

Historic tailings

Tailings have been stored onsite from operations in the late 1900's and are currently within the footprint of the project development area. Mine Earth (2023) sampled[1] the historic tailings and characterised them as fine sand with clay and silt (likely to be dusty when moved), highly saline, moderately slow drainage capacity and non-acid forming. Soil contaminants were below National Environmental Protection Council (NEPC) 2013 health investigation levels and water-soluble metal concentrations were typically below Australian and New Zealand Environment and Conservation Council (ANZECC) and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) 2000) guidelines for livestock drinking water aside from minor exceedances of cobalt, selenium and mercury.

Given the tailings physical and chemical characteristics Mine Rock (2023) recommended that the tailings were not suitable for use as surface rehabilitation material and that they should be encapsulated within the waste rock landform.

Turkey's nest

A large area with a total footprint of 4.6 ha turkey's nest will be constructed for the purposes of managing water for dust suppression. The turkey's nest will store hypersaline pit dewater, approximately 26,000 mg/L total dissolved solids (TDS). Water will be used for dust management activities such as laydown and hardstand areas and topsoil stockpiles. When groundwater is intersected during mining (the proponent anticipates >70 meters below ground level [mbgl]), it will be pumped to the turkey's nest and used for dust suppression.

Given groundwater is expected to be >70 m bgl, bores will be installed to abstract groundwater to use for dust suppression before groundwater is intersected. Water will be abstracted under groundwater licence (GWL) 208437, which is approved for 540,000 kL per annual period.

2.2.2 Category 89 activities

Mt Ida proposes to construct and operate a class II putrescible waste landfill facility within the footprint of the waste rock dump with a capacity of 25 tpa. Controls for potential risks are given in section 3.1.

[1] Samples taken from six locations and three depth intervals: 0 to 0.5m, 0.5 – 1.0m, 1.0 – 1.5m

2.3 Other relevant approvals

2.3.1 Department of Energy, Mines, Industry Regulation and Safety

The Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) approved a mining proposal for the project on 31 October 2023 (Registration ID 117361). DEMIRS provided DWER with the following comments on 3 April 2024 regarding the mining proposal:

- submitted by Red Dirt Metals, which per an ASX announcement dated 28 April 2023, was renamed Delta Lithium Ltd;
- proposed a number of miscellaneous mine activities on M29/2, including a mobile crushing and screening plant;
- included a landfill facility within the footprint of the WRL proposed to be located on M29/165;
- included movement of historical tailings material located on M29/2 and M29/165. Historical tailings were described as saline, sodic and prone to dusting; and
- the risk assessment included controls indicating that historical tailings material would be placed within the WRL footprint and encapsulated by waste rock.

2.3.2 Naturally Occurring Radioactive Materials

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is the lead national agency[2] for radiation protection. ARPANSA (2012) state that for naturally occurring radioactive material (NORM) associated with mining: “For normal exposure situations, it is usually unnecessary to regulate materials with radionuclides of natural origin with activity concentrations below 1000 Bq/kg (i.e. 1 Bq/g). Under these conditions, it can be anticipated that doses to members of the public are unlikely to exceed about 1 mSv/year.

Uranium and thorium concentrations were assessed by Mt Ida, within a wider multi-element suite, for 16 samples across the key stratigraphic units for the project (Mine Earth 2023). No exceedances of 1 Bq/g combined uranium and thorium activity were observed. Caesium and rubidium enrichments were also identified within the pegmatite samples. Mine Earth (2023) recommended that these are sampled to determine NORM levels. The mining proposal indicated this will be undertaken as part of pre-mine development activities.

Approved mining proposal (environmental registration ID:117361) has the condition placed on mining leases M29/2 and M29/165 for annual groundwater sampling for gross alpha and gross beta radiation levels. Where levels exceed 0.5 Bq/L in either case, specific radionuclide analysis for RA-226 and RA-228 is required. This data is to be reported within the Annual Environmental Report (AER) for the Department of Energy, Mines, Industry Regulation and Safety.

2.3.3 Department of Water and Environmental Regulation – Part V Division 2 of the EP Act and Riwi Act.

Clearing permit 10121/2 to clear up to 246 hectares of native vegetation was granted for the site on 3 June 2023.

Groundwater licence GWL208437(2) has been granted for the site for an entitlement of 540,000 kL/annum and expires on 6 March 2033.

[2] Radiological hazards for mine sites in Western Australia are regulated under the *Work Health and Safety Act 2020* (administered under DEMIRS) and *Radiation Safety Act 1975* (administered under the Radiological Council).

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk Assessments* (DWER 2020).

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and time limited 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.

Noise emissions associated with construction, and odour emissions from landfill activities, have not been included in the risk assessment as there are no nearby sensitive human receptors.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Construction of: • crushing/screening plant • Putrescible landfill •Turkey's nest Vehicle movements and earthworks	Air/windborne pathway causing poor vegetation health/death for adjacent native vegetation	• Dust suppression using water carts with a spray bar delivery system. • Boom sprinklers adjacent to the road for watering of the roads. • All vehicles on site are to be confined to designated routes with speed limits enforced.
	Movement of historic tailings to waste rock landform		• Dust suppression on tailings when moved by using conventional dust suppression measures (water sprays) • Visual dust monitoring • Encapsulation of tailings within the waste rock landform once deposited
Time limited operations			
Category 5 – mobile crushing and screening plant			
Dust	Screening, crushing, unloading, loading and storage/stockpiling of material.	Air/windborne pathway causing poor vegetation health/death for adjacent native vegetation	• Fugitive dust emissions will be minimised using water sprays at the crusher hopper and sprays will be operated during loading and crushing operations. Water sprays on stockpiles as required.

Emission	Sources	Potential pathways	Proposed controls
Sediment laden stormwater	Vehicle movements	Overland runoff / stormwater run off from stockpiles causing impacts to adjacent native vegetation and ephemeral surface water lines	• Conducting works during dry season. • Stockpiling materials away from drainage lines. • Providing sediment control / erosion protection around active works area. • Constructing bunding and diversion drains around the crushing and screening plant and ore stockpiles to restrict run off. • Diverting clean water and restricting run off. • Sediment basins within the crushing and screening plant to control quality of runoff outside of operating area. Waste material will be disposed to an appropriate landfill facility for disposal
Hydrocarbons	Operational area spills/leaks	Overland runoff / stormwater run off causing impacts to adjacent native vegetation and ephemeral surface water lines	• Storage of hydrocarbons in accordance with AS/NZS 1940:2017 (as amended, 2019 and 2021) and Water Quality Protection Note 52 (Stormwater management at Industrial Sites) • Bunding around operational areas • Weekly inspections of storage areas to identify any leaks or issues. • Oils and lubricants are to be stored in weatherproof sea container. • Self-bunded fuel storage tanks and diesel generators are bunded. • Installing a bund and collection sump at the vehicle refueling area. • Enforcing a spill management and reporting protocols and ensure communication of these procedures
Dust	Movement of historic tailings to waste rock landform	Air/windborne pathway causing poor vegetation health/death for adjacent native vegetation	• Dust suppression on tailings when moved by using conventional dust suppression measures (water sprays) • Visual dust monitoring • Encapsulation of tailings within the waste rock landform once deposited
Category 89 – putrescible landfill			
Dust	Operation of a category 89 landfill	Air/windborne pathway causing poor vegetation health/death for adjacent native	• Use of water carts to minimise dust.

Emission	Sources	Potential pathways	Proposed controls
		vegetation	
Windblown waste		Air/windborne pathway causing impacts to adjacent native vegetation and fauna	• Materials likely to be windblown will be covered or stored to minimise risk. • Waste will be covered fortnightly • Bunds constructed around the waste management area to minimise stormwater encroachment. • Monthly clean-up of the site to collect any windblown waste to return to the tipping area. • The site will be suitably fenced to create a suitable barrier for cattle, horses, and other stock. The landfill area will be fenced
Leachate		Seepage through base and embankments to soil and groundwater causing poor vegetation health and groundwater contamination	• The base of the landfill will be maintained at least 3 m from groundwater level.
Contaminated surface water		Overland runoff/seepage causing impacts to adjacent native vegetation and ephemeral surface water lines	• Bunds will be placed around the waste management area to minimise stormwater encroachment. • Water within the waste management area shall be retained within the footprint and allowed to evaporate. • Erosion and sediment controls will be implemented in the project area to minimise runoff and prevent sediment from entering water bodies. • Disturbed area runoff will be directed to sedimentation ponds for suspended sediments removal before discharge into the environment. • Implement creek diversion and bunds to redirect clean water and prevent mixing with dirty runoff in disturbed areas.
Tukey's nest			

Emission	Sources	Potential pathways	Proposed controls
Saline water	Deposition and storage of saline water within turkey's nest	Overtopping causing impacts to adjacent native vegetation and ephemeral surface water lines	• Creek diversions • Flood bunds or raising of pad levels • Designed for 1% annual exceedance probability • 0.5 m freeboard has been specified
		Seepage through base and embankments to soil/groundwater causing impacts to adjacent native vegetation and ephemeral surface water lines	• Lined with a 20 mm thickness PVC liner
		Fauna access causing potential fauna death	• Turkey's nest to be fenced to restrict access. • Construct egress points at regular intervals around the pond.

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 and Figure 4 below provide 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)).

The Town of Menzies and the Town of Leonora are 83 km and 88 km east of the proposed premises.

Table 2 : Sensitive human and environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Threatened and priority flora	Delta Lithium (2023) reported that a 617.4-hectare reconnaissance survey conducted in 2022 identified: • No threatened flora species within a 10 km radius of the premises. • 2 restricted priority four species "likely to occur' with the closest being approximately 200 m west of the premises.

	While close to the boundary, these species are >500 m from the crushing and screening plant therefore unlikely to be affected by the proposed works approval. Distance is such that these species are unlikely to be affected by the works approval.
Native vegetation	Extensive native (pre - European) vegetation is present at the premises within the survey area with conditions on average considered good and found to be ranging from completely degraded following historical mining exploration, to very good. The predominant vegetation groups are open chenopod shrubland with occasional Mulga overstory, Mulga over *Maireana sedifolia* and sclerophyll shrubland, Mulga Woodland and creekland vegetation (Delta Lithium, 2023).
Groundwater Goldfields Groundwater Area – *Rights in Water Irrigation Act 1914*	Groundwater depth Groundwater depth is variable, between 23 and 300 metres below ground level (mbgl). The groundwater systems consist of unconfined alluvial aquifer, localised calcrete aquifer and confined paleochannel aquifer. (Hydrogeological study by Advisian [2022]). Depth to groundwater ranges from shallow (several metres below ground level) in low-lying areas to several tens of metres in elevated areas. Groundwater flow directions are inferred to follow topographic trends in the area, i.e., from elevated areas to low-lying areas. The main aquifer system, the basal paleochannel sand, drains the Archaean basement. The groundwater in paleochannel flows eastwards in the Raeside paleochannel. Flow gradients are low. Groundwater quality Groundwater is saline, with total dissolved solids (TDS) approximately 26,200 mg/L. Circum-neutral to slightly alkaline (pH 7.1 – 7.6) Existing groundwater sources indicate elevated concentrations of manganese, sulfate and iron. Groundwater was also analysed for naturally occurring radioactive material (NORM) which detected low levels of naturally occurring Uranium 235 and Throrium 238, Potassium and Rubidium were also detected (Groundwater Development Services, 2019) Beneficial uses In a response to a request for information, Delta Lithium (2024) stated “there are no beneficial uses of the water in the area”.

	A search of DWER's registered groundwater licences within 2 km of the premises boundary indicate the bores are registered with mining / petroleum companies only.
Fauna	A vertebrate fauna reconnaissance survey and risk assessment were undertaken in 2022 by Terrestrial Ecosystems of an area of approximately 617 ha within and outside the proposed prescribed premises. Several species including critically endangered, vulnerable and priority 1 – 3 were found on database searches but were classified as: "may infrequently be seen, unlikely to occur or highly unlikely to occur" (DBCA, Appendix 1 - Table 5). None were identified during the field surveys. A search of DWER databases indicated two records of specially protected migratory species in the southern portion of the premises (Figure 4).
Surface water	The proposed premises is located within the upper reaches of the Raeside-Ponton catchment. Surface water is generally ephemeral and forms following a rainfall event. There are no permanent watercourses or surface water features in the area. Impacts of any runoff may be felt in the lower reaches of the catchment (Delta Lithium 2023). A search of DWER databases indicate ephemeral drainage lines intersect with the premises (Hydrography WA – 250k surface water lines).
Pastoral Stations	Pastoral stations include: • Riverina on the north west side; and • Perrinvale on the south west side of the proposed premises. No pastoral bores have been identified by DWER database searches within 2 km of the premises boundary. In a response to a request for information, Delta Lithium (2024) stated "there are no beneficial users of the water in the area".

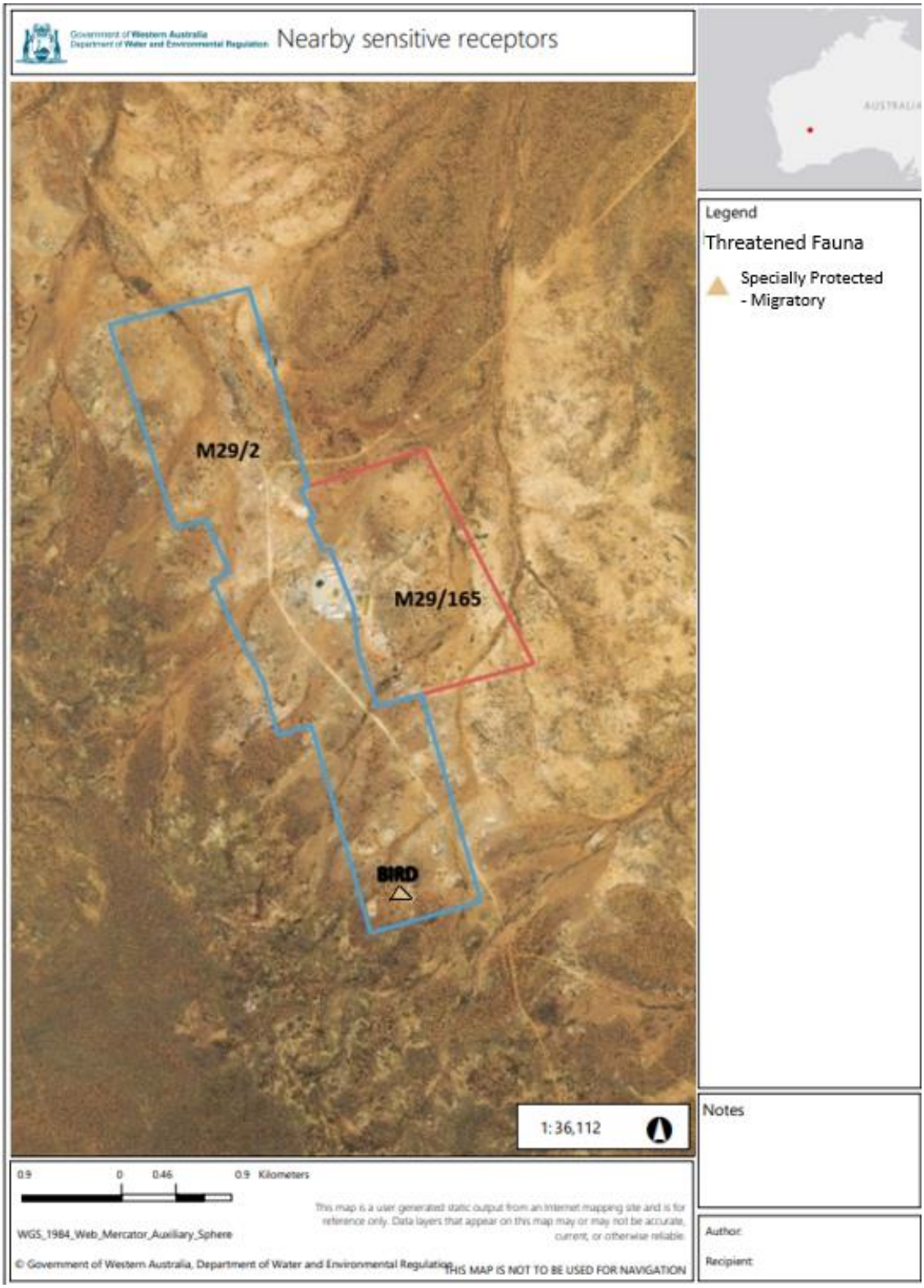

Figure 4 Distance to sensitive receptors (location of threatened flora have been omitted)

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 W6897/2024/1 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 [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Construction of: • crushing/screening plant • Putrescible landfill Vehicle movements and earthworks	Dust	Air / windborne pathway causing poor vegetation health for adjacent native vegetation	Adjacent native vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	N	Condition 1: dust management during construction	The applicant's proposed controls to suppress dust emissions are considered sufficient to mitigate the risk and have been included within the works approval as a regulatory control. <u>DWER control:</u> The applicant has indicated they intend to use hypersaline water (TDS >35,000mg/L) for dust suppression purposes. Condition 1 includes a provision that hypersaline water must not be applied near, or to adjacent native vegetation during dust suppression.
Movement of historic tailings to waste rock landform					C = Minor L = Unlikely **Medium Risk**	Y	Condition 1: requiring dust management at premises Condition 2: requiring dust suppression and encapsulation of historic tailings within the WRL	Applicant proposed controls for dust suppression and encapsulation of tailings within the waste rock landform have been placed on the works approval as regulatory controls. Standard dust control measures using water sprays will be used for dust suppression
Operation (including time-limited-operations operations)								
Category 5 – mobile crushing and screening								

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Screening, crushing, unloading, loading and storage/stockpiling of material. Vehicle movements	Dust	Air / windborne pathway causing poor vegetation health for adjacent priority flora and native vegetation	Adjacent native vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 2 – design/construction requirements – water sprays installed on loadings and crushing areas and screening plant. Condition 7 – time limited operations – use of water carts and water sprays during operation	The applicant's proposed controls to suppress dust emissions are considered sufficient to mitigate the risk and have been included within the works approval as regulatory controls.
	Sediment laden stormwater	Overland runoff / stormwater run off from stockpiles causing impacts to adjacent native vegetation and ephemeral surface water lines	Adjacent native vegetation and nearby ephemeral creek lines	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 2: surface water diversions/bunds Condition 7: operational area stormwater management	The applicant's proposed controls to construct bunds and diversion drains are considered sufficient to mitigate the risk.
	Hydrocarbons	Direct discharge to land causing impacts to adjacent native vegetation and ephemeral surface water lines	Adjacent native vegetation and nearby ephemeral creek lines	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	N	Condition 2: construction requirements Condition 7: requirement for time limited operations	No discharge of hydrocarbons to the environment is permitted as per the *Environmental Protection (Unauthorised discharges) Regulations 2004*. Applicant proposed control for storage of hydrocarbons within bunded areas has been conditioned. <u>DWER control:</u> To mitigate risk associated with discharge of hydrocarbons to the environment, DWER has additionally conditioned that bunded areas

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
								contain at least 110% of the total volume of materials stored.
Category 5 (ancillary) – Turkey's nest								
Deposition and storage of saline water within turkey's nest	Saline water (26,000mg/L TDS)	Overtopping causing impacts to adjacent native vegetation and ephemeral surface water lines	Ephemeral surface water lines and adjacent native vegetation	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	N	Condition 2: construction requirements Condition 7: requirement for time limited operations	Applicant proposed controls, including 1% annual exceedance probability (72 hour rainfall event) for containment have been placed on the works approval as regulatory controls. <u>DWER controls:</u> No minimum freeboard requirements have been specified. To mitigate risk associated with overtopping, a minimum freeboard requirement of 0.5 m has been placed on the works approval as a regulatory control.
		Seepage through base and embankments to soil/groundwater causing impacts to adjacent native vegetation and ephemeral surface water lines		Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 2: construction requirements – PVC liner Condition 7: requirement for time limited operations – maintain PVC liner	Applicant proposed control for a PVC liner is considered sufficient and has been placed on the works approval as regulatory controls.
		Fauna access causing potential fauna death	Nearby fauna	Refer to Section 3.1	C = Minor L = Possible	Y	Condition 2: construction requirements – egress	Applicant proposed control for fauna egress has been conditioned and placed on the works approval as a

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
					Medium Risk		installed	regulatory control.
Movement of historic tailings to waste rock landform	Dust	Air / windborne pathway causing poor vegetation health for adjacent native vegetation	Adjacent native vegetation	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1: requiring dust management at premises. Condition 2: requiring dust suppression and encapsulation of historic tailings within the WRL	Applicant proposed controls for dust suppression and encapsulation of tailings within the waste rock landform have been placed on the works approval as regulatory controls. Standard dust control measures using water sprays will be used for dust suppression
Category 89 – Putrescible landfill								
Operation of a category 89 landfill	Dust	Air/windborne pathway causing poor vegetation health /death.	Adjacent native vegetation	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	N/A	N/A
	Windblown waste	Air/windborne pathway causing poor vegetation health /death.	Adjacent native vegetation and fauna	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	N	Condition 7: waste management – coverage and inspection requirements	<u>DWER control</u> Frequency for waste coverage has not been specified. DWER has conditioned a requirement for a minimum weekly covering of waste and monthly inspections to mitigate the risk associated with windblown waste.
	Leachate	Seepage through waste rock landform causing vegetation poor health/death contamination of nearby ephemeral surface water lines	Adjacent native vegetation and nearby ephemeral creek lines	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	N	Condition 2 – landfill construction requirements Condition 7 – landfill operational requirements	While leachate impacts are considered unlikely due to depth of groundwater > 23 metres below ground level (m bgl), DWER has placed the applicant proposed control that the base of the landfill be kept 3 m above groundwater. <u>DWER controls:</u>

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
								To minimise the risk to receptors associated with leachate DWER has also conditioned the requirement for: • signage indicating the types of waste which are acceptable for burial • that the landfill is not located within potentially acid forming material within the waste rock landform • the landfill must be located at least 100 m from any permanent or ephemeral water course
	Contaminated surface water	Surface water run off causing poor vegetation health/ death and contamination of nearby ephemeral creek lines.	Adjacent vegetation and nearby ephemeral creek lines	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	N	Condition 2 – landfill construction requirements Condition 7 – landfill operational requirements	<u>DWER controls:</u> To minimise the risk to receptors associated with contaminated surface water run off DWER has also conditioned the requirement for the landfill to be located at least 100 m from any permanent or ephemeral water course

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. **<u>Bold and underline text</u>** 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 14 March 2024	None received	N/A
Local Government Authority (Shire of Menzies) advised of proposal on 15 March. 24	The Shire of Menzies replied on 15 March 2024, confirming that the Shire supports the works approval application for the proposed activities.	Noted
Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advised of proposal 15 March 2024	Refer to section 2.3.1	Noted
Applicant was provided with draft documents on 19 April 2024	The applicant requested that the conditions relating to the turkey's nest be removed from the instrument as being handled under the mining proposal and outside of the premises boundary.	Storage of water in a turkey's nest is ancillary to prescribed activities and consequently conditions included within the works approval for management of emissions. The turkey's nest has been included within the prescribed premises boundary and conditioned.

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. Advisian, 2022. *Mount Ida Project* Hydrogeological study
2. Advisian, 2023. Hydrological Assessment. Perth, Western Australia: *Report for Red Dirt Metals*
3. Australian and New Zealand Environment and Conservation Council (ANZECC) & Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) 2000, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*
4. Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), 2012. *A Survey of Naturally Occurring Radioactive Material Associated with Mining*, available from: https://www.arpansa.gov.au/sites/default/files/legacy/pubs/technicalreports/tr161.pdf

5. Standards Australia, 2017. AS/NZS 1940:2017, *The storage and handling of flammable and combustible liquids*
6. Delta Lithium 2023, *Mt Ida Lithium, Works Approval Application*
7. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
8. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
9. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
10. DEMIRS 2020, *Mining proposal Guidelines*, Perth, Western Australia.
11. Mine Earth 2023 *Mt Ida Lithium Project, Historic Tailings Assessment*
12. National Environment Protection Council (2013) *National Environment Protection (Assessment of Site Contamination) Measure*
13. Red Dirt Metals Ltd, 2023. *Mt Ida Lithium Project, Mining Proposal Application*
14. Terrestrial Ecosystems, 2022. *Vertebrate fauna reconnaissance survey and risk assessment,* Report for Red Dirt Metals

Appendix 1: Additional tables

Table 5: Species on the DBCA database

Species	DBCA Schedule/ Priority	Status under Commonwealth EPBC Act	Likelihood to occur in the proposed Project area.	Species identified during field surveys
Night Parrot (*Pezoporus occidentalis*)	Critically Endangered	Endangered	Highly unlikely to occur in the proposed Project area	No
Sandhill Dunnart (*Sminthopsis psammophila*)	Endangered	Endangered	Highly unlikely to occur in the proposed Project area	No
Malleefowl (*Leipoa ocellata*)	Vulnerable	Vulnerable	Highly unlikely to occur in the proposed Project area	No
Chuditch (*Dasyurus geoffroii*)	Vulnerable	Vulnerable	Highly unlikely to occur in the proposed Project area	No
Grey Falcon (*Falco hypoleucos*)	Vulnerable	Vulnerable	Highly unlikely to occur in the proposed Project area	No
Princess Parrott (*Polytelis alexandrae*)	Vulnerable	Vulnerable	May infrequently be seen in the proposed Project area	No
Fork-tailed Swift (*Apus pacificus*)	Migratory	Migratory	May infrequently be seen in the proposed Project area	No
Grey Wagtail (*Motacilla cinerea*)	Migratory	Migratory	Highly unlikely to occur in the proposed Project area	No
Peregrine Falcon (*Falco peregrinus*)	Other	-	May infrequently be seen in the proposed Project area	No
Woma (*Aspidites ramsayi*)	Priority 1	-	Highly unlikely to occur in the proposed Project area	No
Mulgara (*Dasycercus blythi*)	Priority 4	Vulnerable	Highly unlikely to occur in the proposed Project area	No
Central Long-eared Bat (*Nyctophilus* major tor)	Priority 3	-	Highly unlikely to occur in the proposed Project area	No

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)					
Application type					
Works approval	☒				
Licence	☐	Relevant works approval number:		None	☐
		Has the works approval been complied with?	Yes ☐ No ☐		
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes ☐ No ☐ N/A ☐		
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes ☐ No ☐		
		Date report received:			
Renewal	☐	Current licence number:			
Amendment to works approval	☐	Current works approval number:			
Amendment to licence	☐	Current licence number:			
		Relevant works approval number:		N/A	☐
Registration	☐	Current works approval number:		None	☐
Date application received		06/11/2023			
Applicant and premises details					
Applicant name/s (full legal name/s)		Mt Ida Gold Pty Ltd (ACN 45 106 608 986)			
Premises name		Mt Ida Lithium Project			
Premises location		Mining Tenements: M29/165 and M29/2			
Local Government Authority		Shire of Menzies			
Application documents					
HPCM file reference number:		DER2023/000715			
Key application documents (additional to application form):		*Updated:* 1. *Mt Ida Lithium project and Mining Proposal application v2* 2. *Groundwater and hydrogeological* 3. *RFI response 2* 4. *Rockwater dewatering assessment.* 5. *ASIC change of name certificate.* 6. *RFI response*			
Scope of application/assessment					

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)	
Summary of proposed activities or changes to existing operations.	***New Works approval application*** *Mobile Crushing and screening plant (category 5)* • Construction of a mobile crushing and screening plant facility for a throughput of around 2 million tonnes per annum. • Commissioning activities – The mobile crushing and screening facility will require a commissioning period of two weeks (no environmental commissioning report required) • Time limited operations –The applicant erroneously asks for time limited operations for a period of three years. I proposed time limited operations for 180 days to allow the applicant to apply for a licence without incurring in any delays. The screened product will be stockpiled and loaded into trucks as required. Course material will be stockpile beside the plant and reused as fill material. The operations are temporary and forecasted to continue for a period of 2 to 3 years. A beneficiation plant will then be constructed. *Landfill (putrescible waste) - Category 89* • Construction of a putrescible waste landfill within the footprint of the current waste rock dump • Time limited operations – The applicant is requesting to start using the landfill immediately, therefore time limited operations will also be considered. Perrinvale and Mount Ida Road currently running through the proposed premises will be diverted to run along the east boundary of tenement M29/169. This will reduce some the emissions impacts.

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 5: *Processing or beneficiation of metallic or non-metallic ore*	*2 million tonnes per annum (Mtpa).*	*N/A*
Category 89: Putrescible landfill	*25 tonnes per year (tpa)*	

Legislative context and other approvals

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
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: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes ☐ No ☒	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ☒ No ☐	Certificate of title ☒ General lease ☐ Expiry: Mining lease / tenement ☒ Expiry: M29/165 – expiry: 20/12/2036 M29/1 – expiry: 21/12/2024
Has the applicant obtained all relevant planning approvals?	Yes ☐ No ☒ N/A ☒	Approval: Expiry date: If N/A explain why? Mining Lease
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes ☒ No ☐	CPS No: 10121/2
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 No Licence/permit No: N/A
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes ☒ No ☐	Licence No: GWL208437 – Expiry 6 March 2033
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes ☐ No ☒	Name: N/A Type: Has Regulatory Services (Water) been consulted? Yes ☐ No ☐ N/A ☒ Regional office: Goldfields

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)		
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes ☐ No ☒	Name: N/A Priority: P1 / P2 / P3 / 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 (e.g. *Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx*)	Yes ☒ No ☐	*Mining Act 1978 – Reg ID 117361*
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ☐ No ☒	
Is the Premises subject to any EPP requirements?	Yes ☐ No ☒	
Is the Premises a known or suspected contaminated site under the *Contaminated Sites Act 2003*?	Yes ☐ No ☐	Classification: Awaiting Classification Date of classification: N/A