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	W2995/2025/1
Applicant	Mt Ida AU Pty Ltd
ACN	664 555 873
File number	APP-0028237
Premises	Mt Ida Project Mining tenements: M29/2, M29/165 and part of M29/444 Mt Ida Road, ULLARING 6436
Date of report	15 October 2025
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 W2995/2025/1 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

On 28 March 2025, Mt Ida AU Pty ltd (the applicant) submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act) for the Mt Ida Project.

The Mt Ida Project is situated on Mining Leases M29/165, M29/02 and M29/444 in the Murchison region of Western Australia, approximately 100 km north-west of the town of Menzies, WA (the premises).

The project is located on a brownfields site and proposes to mine gold ore to produce gold bars on site. Mining will take place from several over-pit underground mines with ore processed on site in a carbon-in-leach processing plant.

The application is to undertake construction works relating to an ore processing plant, an Integrated Waste Landform Tailings Storage Facility (IWLTSF) and ancillary infrastructure at the premises.

The premises relates to the category and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W2995/2025/1. 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 W2995/2025/1.

2.3 Legislative context

2.3.1 Part V Division 2 of the EP Act (clearing)

Clearing Permit 10121/3 was granted on 31 October 2024 for the clearing of 338 hectares (ha) of native vegetation.

2.3.2 *Mining Act 1978*

The Mt Ida Lithium Project received initial approval for its Mining Proposal on 31 October 2023 (Registration ID: 117361), followed by a revised approval on 13 August 2024 (Registration ID: 124386).

A further revised Mining Proposal and Mine Closure Plan for the Mt Ida Project focusing on the mining of gold at the premises has since been submitted to the Department of Mines, Petroleum and Exploration (DMPE). This submission incorporates additional project components, including the Integrated Waste Landform Tailings Storage Facility (IWLTSF), processing plant, and associated infrastructure.

2.3.3 *Rights in Water and Irrigation Act 1914*

The applicant holds two groundwater licences issued under section 5C of the *Rights in Water and Irrigation Act 1914*, which authorises the abstraction of water from proclaimed groundwater resources in Western Australia.

- Groundwater licence GWL208437(5) permits the abstraction of up to 1,270,000 kilolitres per year for a range of mining-related activities, including dewatering, dust suppression, mineral ore processing, and mining camp operations; and
- Groundwater licence GWL208394(1) allows for the abstraction of an additional 126,000 kilolitres per year, specifically for dust suppression associated with mining activities.

3. Overview of premises

3.1 Processing plant

The proposed processing plant is designed to process 1 million tonnes per annum (Mtpa) of fresh rock to allow for the on-site processing and beneficiation of gold ore mined from the premises. The plant will be designed to process fresh ore, oxide and transitional ore. Ore will be processed in the following key stages:

1. Crushing and screening:
    - Ore is delivered to a Run-of-Mine (ROM) pad and fed into a three-stage crushing circuit (jaw crusher, secondary and tertiary cone crushers).
    - Crushed material is screened and conveyed for further processing.
    - The circuit is fitted with water sprayers for dust suppression and a weighometer for throughput monitoring.
2. Ore storage and grinding:
    - Crushed ore is stored in a fine ore bin and fed to the grinding mill.
    - Quicklime will be dosed onto the mill feed conveyor.
    - The grinding circuit includes hydrocyclones for classification, with 40% of the underflow sent to gravity recovery and the rest recycled.
    - The grinding area will be equipped with a containment bund and serviced by two vertical spindle sump pumps for clean up purposes.
3. Gravity recovery:
    - A centrifugal concentrator treats approximately 40% of the cyclone stream.
    - Cyanide, sodium hydroxide and leach aid will be added to the leach reactor during the mixing step.
    - The gravity concentrate is intensively leached to yield a pregnant solution which gold is then recovered from via electrowinning.
    - Leach residue is returned to the mill for regrinding.
    - A single dedicated electrowinning cell will be utilised to recover precious metals from the gravity solutions.
4. Leaching and adsorption (CIL Circuit):
    - Cyclone overflow slurry is thickened to approximately 45% solids using flocculant before leaching.
    - The slurry passes through two leach tanks and six Carbon-in-Leach (CIL)

adsorption tanks with a nominal 25 hours of total pulp residence time.

- Cyanide and oxygen are added to enhance gold dissolution, free cyanide will be maintained at a high concentration through the leach to minimise the amount of copper reporting to elution.
- Activated carbon adsorbs dissolved gold, which is later separated for recovery.

5. Gold recovery:
   - Loaded carbon undergoes acid washing and elution using the pressure Zadra method.
   - Gold is recovered from the pregnant solution via electrowinning.
   - Barren carbon is thermally regenerated and reused.
   - Final gold product is smelted in a furnace into gold doré.
6. Tailings disposal:
   - Tailings from the leaching circuit are pumped to an IWLTSF.

A schematic of the gold processing process is presented in Figure 1.

A summary of chemical and reagents used in the gold processing process are presented in Table 1.

Table 1: Chemicals and reagents used in the gold processing process

Chemical / reagent	Form / packaging	Storage capacity	Function in process
Steel Grinding Balls	Bulk	Bunker	Grinding media for ore processing
Quicklime	Bulk	150 t silo	pH adjustment and stabilisation
Sodium Cyanide (30%)	Bulk liquid	110 m³ tank	Gold leaching in CIL circuit
Oxygen	PSA plant output	2 t/day	Enhances leaching efficiency
Activated Carbon	500 kg bags	30 bags	Adsorption of gold from solution
Sodium Hydroxide (49%)	1 t IBCs	10 m³ tank	Elution and leach processes
Hydrochloric Acid (32%)	Bulk liquid	30 m³ tank	Acid washing of carbon
Leach Aid	10 kg buckets	20 buckets	Enhances leaching kinetics
Flocculant	750 kg bags	4 m³ tank	Settling agent in thickening
Hydrogen Peroxide (70%)	Bulk liquid	30 m³ tank + 2 m³ break tank	Cyanide destruction in tailings water
Antiscalent	1 m³ bulky-boxes	Not specified	Prevents scaling in water systems
Smelting Fluxes	25 kg bags	Warehouse	Used in gold smelting

Liquefied Petroleum Gas	Bulk tanks (3 × 7.5 kL)	22.5 kL total	Fuel for elution heater, kiln, and smelting furnace

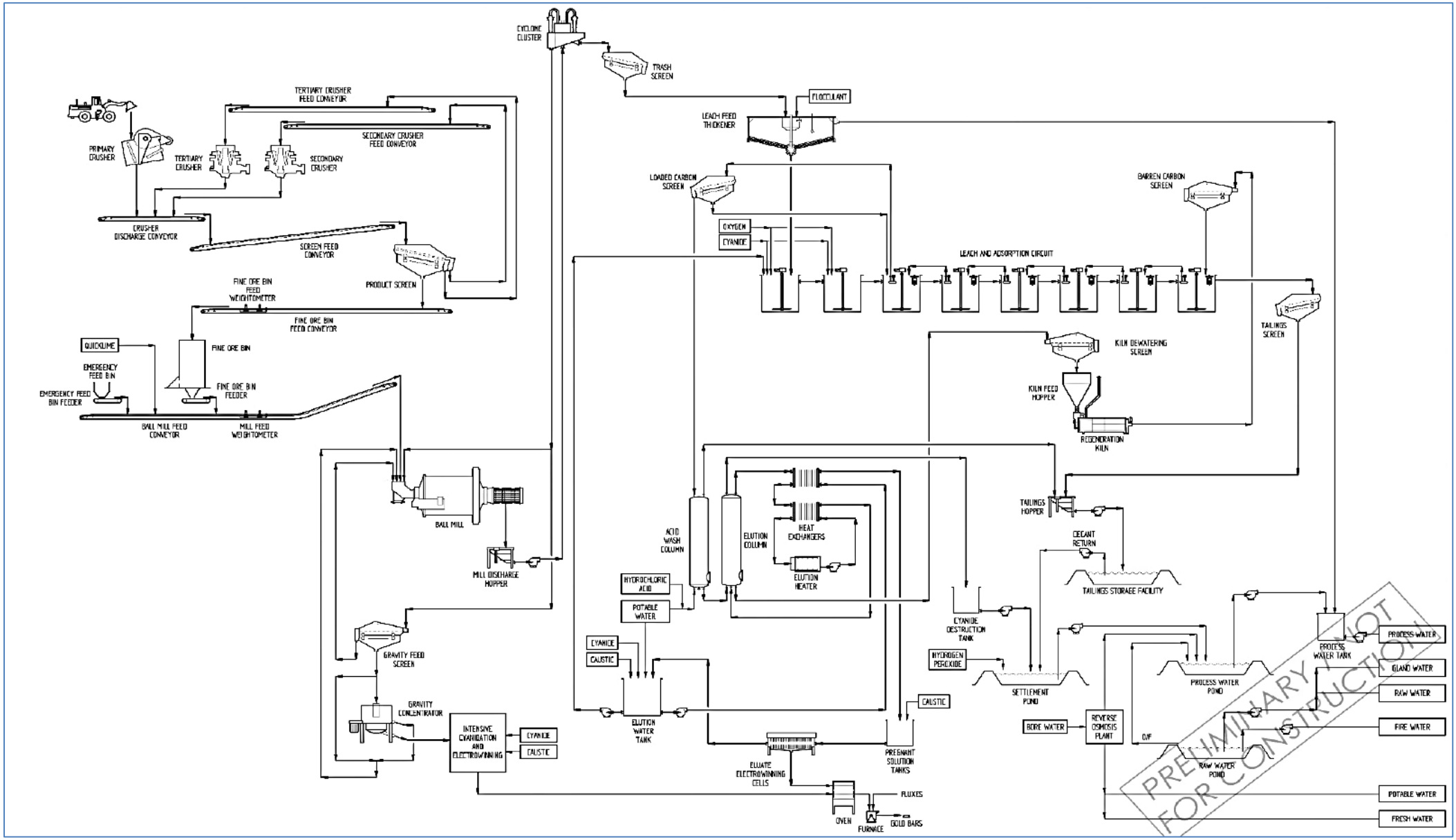

Figure 1: Gold processing flow diagram

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3.2 Integrated Waste Landform Tailings Storage Facility

3.2.1 Detailed design

The IWLTSF embankments will be formed by the construction of two zones within the waste rock landform (WRL).

- Zone 1 consists of oxide mine waste, moisture conditioned and compacted 'clayey' material placed in discrete layers (nominally 300 mm thick) forming the inner liner. The zone will be nominally 6 m wide, and the internal batter slope formed at 1:2.5 (V:H). The compacted clay in the starter embankment will be overlain by a geomembrane (HDPE liner) to form a double liner system.
- Zone 2 will support zone 1 and consists of Run-of-Mine waste placed in 1 m lifts with a rock limit of 750 mm with sufficient fines to fil any voids. The zone will be nominally 30 m wide, and external batter slopes at maximum of 1:3 (V:H)

The base of the TSF will incorporate a lining system. The lining system is show in Figure 2 and described below with Layer 1 representing the bottom layer.

- Layer 1: Subgrade – topsoil will be stripped and any unsuitable material removed. The natural subgrade will be shaped to form a crossfall.
- Layer 2: Clay layer – nominally 0.5 m think layer of compacted low-permeability clayey material.
- Layer 3: HDPE liner –2.0 mm High Density Polyethylene (HDPE) liner. The liner is welded together to form a solid artificial barrier to direct seepage to the underdrainage trench.
- Layer 4: Underdrainage layer – underdrainage water collection system comprised of flownet and associated slotted collection pipes.
- Layer 5: Geotextile – protective geotextile layer provides a barrier between tailings and the underdrainage system to prevent clogging.

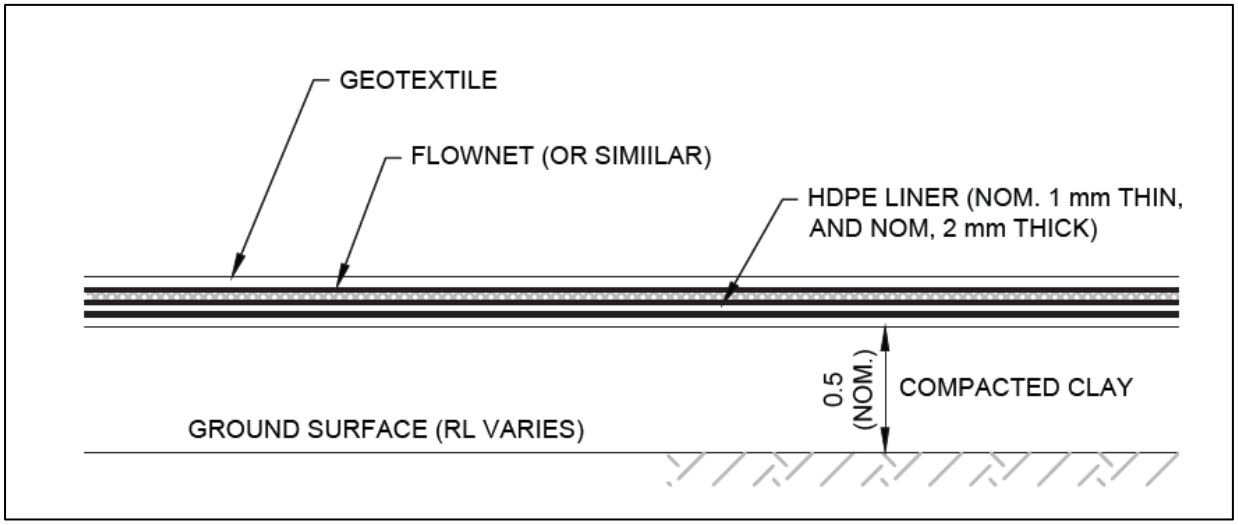

Figure 2: Cross-section of liner system

3.2.2 Seepage assessment and management

The TSF is fully lined with an underdrainage collection system. Seepage is directed to the underdrainage trench which contains a MAGFLO 300 wrapped in geotextile. Seepage is then directed to two solid HDPE outfall pipes which carry seepage under the embankment walls to

an underdrainage sump. The underdrainage capacity has been designed with a system capacity of 1.5 L/s.

3.2.3 Tailings discharge and water management

Tailings are to be discharged into the IWLTSF in the form of a slurry. Tailings will be discharged in thin discrete layers not exceeding 0.3 m in thickness sub-aerially and cyclically via multiple spigots on the upstream perimeter embankment crest.

Spigotting of the tailings will be carried out to form a beach to maintain the supernatant pond within and around the decant structure. The pond will be maintained away from the perimeter embankments at all times.

Water from the supernatant pond is removed from the facility via a decant structure comprised of slotted concrete well liners with select filter rock surround. Water is pumped from the decant structure back to the process plant for use within the process.

3.2.4 Tailings characteristics

Test work under laboratory conditions was undertaken on samples of oxide-transitional tailings and fresh tailings to determine the physical characteristics. Particle size distribution was determined with a hydrometer test and found that the tailings would be classified as silt with sand and clay with a particle density of 2.76 t/m^3. An undrained settling test, drained settling test and air drying test were undertaken and found that the water recovery potential was between 24.5-44% within 1.5 to 2.5 days with the solids achieving a dry density of 0.93 to 1.19 t/m^3.

Chemical characterisation was undertaken on one composite sample consisting of 41% surface oxidised sample and 69% partially oxidised tailings samples and two composite tailings samples consisting of blended underground ore and open pit ore. The transitional sample was classified as non-acid forming (NAF) and the two underground/open pit tailings samples were classified as potentially acid forming (PAF). As such, tailings generated from the project has the potential to generate acid.

Water leachates were strongly alkaline and underground/open pit tailings had high concentrations of silver, aluminium and copper. Naturally occurring radiation levels were low and no asbestiform mineral fibres were identified.

Key findings:

Tailings produced from the open pit and underground workings will need to be managed to prevent Acid and Metalliferous Drainage (AMD).

3.2.5 Construction timeline

The IWLTSF is proposed to be constructed in three stages. The initial stage which includes the starter embankment, underdrainage system and lining system is anticipated to provide 2 years of storage and Stage 2, which will commence construction in Year 2 of operation which will provide an additional 2.3 years storage. Stage 3 will commence construction after Stage 2 and provide the final storage capacity. The IWLTSF will have a total storage life of 6 years for the storage of approximately 4 million tonnes of tailings. Embankment heights for each stage are shown in Figure 3 below.

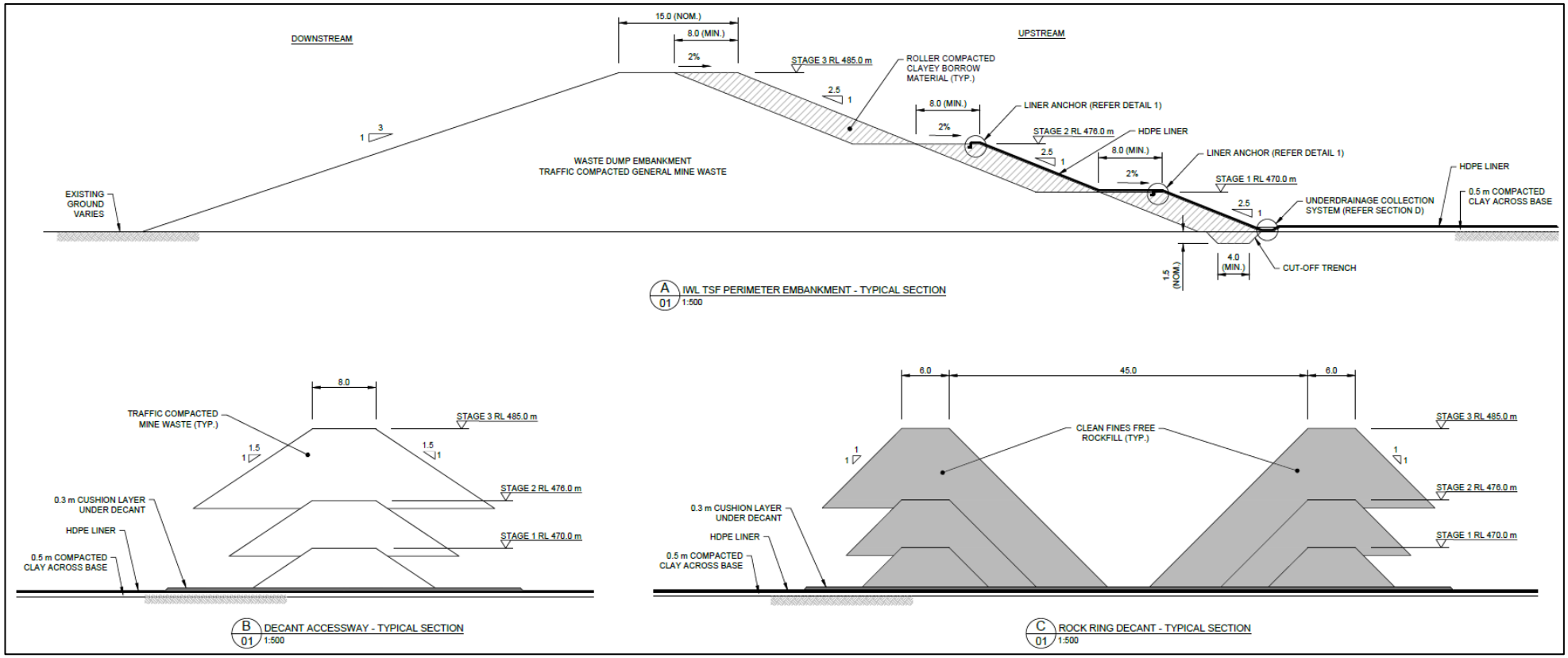

Figure 3: IWLTSF embankment heights

3.3 Ancillary infrastructure

The following ancillary infrastructure is proposed to be constructed as part of the works approval:

- Power supply – will be generated from a nominal 5MW diesel-fired power station located adjacent to the process plant. The estimated power usage required to run the power plant is 4.1MW.
- Bulk fuel stores – will be located on the premises to supply the power station and mobile equipment. The volume proposed to be stored is less than 1,000 m^3 and all fuel will be stored in a concrete bund and double walled tanks in accordance with relevant Australian Standards and an appropriate Dangerous Goods licence.
- Settlement pond - will be constructed within the Process Plant footprint adjacent to the cyanide destruct plant. The settlement pond will receive water from the cyanide destruction plant and will be dosed with hydrogen peroxide if required. The nominal capacity will be 500 m^3 and will be lined with an HDPE liner. Treated water from the settlement pond will feed into the process pond.
- Process pond - will be constructed adjacent to the Process Plant. Nominal capacity will be 4,000 m^3 and have an operational freeboard of 0.5 m. The pond will be lined with an HDPE liner and receive excess water from the existing raw water pond, tailings supernatant return water from the IWLTSF and hydrogen peroxide treated water from the settlement pond associated with the cyanide destruct plant.

3.4 Commissioning activities

3.4.1 Process Plant

The sequence of commissioning activities at the Process Plant is:

1. Construction verification – confirm works have been completed in accordance with design specifications.
2. Dry commissioning – confirm Process Plant has been constructed mechanically and structurally in accordance with the engineering specifications.
3. Wet commissioning (no load) – testing and operating equipment and facilities without the addition of reagents or ore.
4. Ore commissioning – introduction of ores, reagents, griding media and other process requirements to the process facility which is operated as a whole. Commissioning is complete when the plant has continuously discharged tailing for a single period (normally 24 hours) and a gold bar has been produced.
5. Performance verification against specifications warranted by plant construction contractor – verifies that plant is operating according to engineering specifications.

3.4.2 Tailings storage facility

The sequence of commissioning activities at the TSF is:

1. Construction verification – a post-construction survey to confirm the embankments are built to specified construction tolerances.
2. Dry commissioning – dry commissioning of the IWLTSF will take part of the overall dry commissioning of the Process Plant.
3. Wet commissioning – west commissioning forms part of the overall Process Plant ore commissioning. Tailings will be deposition will commence from the north-eastern embankment to fill the low-lying area and will then be extended along the southern and

western embankments and ultimately move around the entire perimeter to raise the tailings beach and force the supernatant pond toward the decent structure.

4. Performance verification – verifies that operation is in accordance with the Operations Manual including water recovery, tailings deposition and routine daily inspections and monitoring.

Key findings:

The delegated officer notes that commissioning activities are anticipated to occur over a relatively short duration and that the nature and extent of risks associated with commissioning are comparable to those identified for time limited operations. The delegated officer therefore considers it appropriate to include the commissioning of the processing plant and tailings storage facility within the scope of time limited operational activities and has not conditioned a separate commissioning phase within the works approval.

4. Location and siting

4.1 Siting context

The premises is located in the northern Goldfields region of Western Australia, approximately 100 km north-west of the town of Menzies. The site lies within the Eastern Murchison subregion of the Murchison bioregion, as defined by the Interim Biogeographic Regionalisation for Australia (IBRA). This bioregion is characterised by internally draining landscapes, extensive red desert sandplains, breakaway complexes, and low-lying alluvial valleys. Vegetation is dominated by Mulga (*Acacia aneura*) woodlands, chenopod shrublands, and hummock grasslands, with scattered saltbush and halosarcia communities.

The surrounding land use is primarily pastoral, with historical and ongoing mining activities.

4.2 Environmental siting

4.2.1 Climate and rainfall

The Bureau of Meteorology (BoM) data for the Leonora weather station (Station No. 012046) shows that the area in the vicinity of the premises has an average annual rainfall of 236.7 mm (based on data from 1949 to 2020), with the majority of the rainfall received between January and March.

The hottest month is January which experiences an average maximum temperature of 37.0°C coldest month is July which receives an average minimum temperature or 6.1°C. The monthly mean rainfall and maximum temperature is shown on Figure 4.

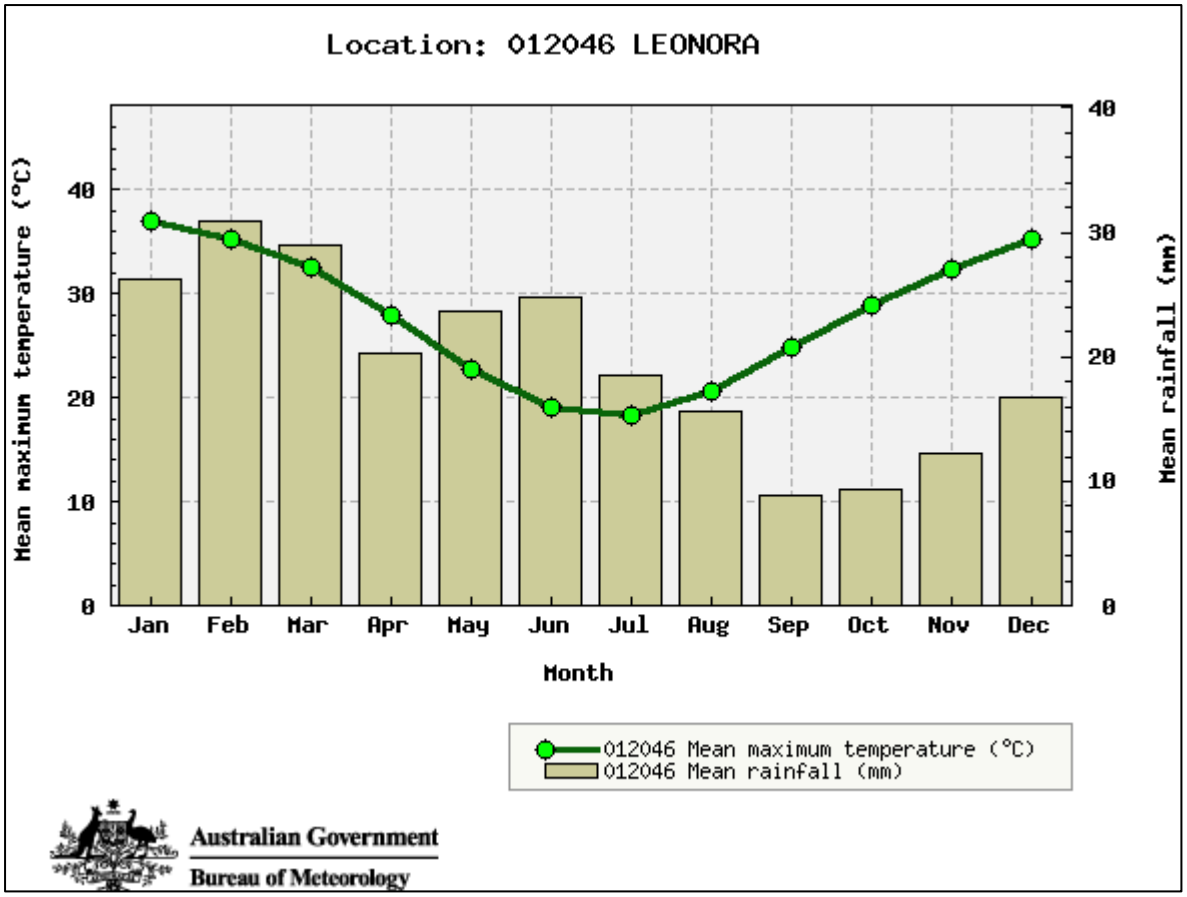

Figure 4: Rainfall and maximum temperature Leonora (1949 to 2020) (Source: BoM Station No. 012046)

4.2.2 Topography

The premises is located on an area of undulating hills between two south-to-north trending ridgelines. Ground elevations across the site vary from approximately 452 to 533 m AHD (Advisian 2023).

4.2.3 Regional geology

The premises is located within the northern section of the Mt Ida / Ularring Greenstone Belt, part of the Yilgarn Craton in Western Australia.

Six principal lithological units are intersected within the premises footprint, Copperfield Granite (CGR), Dick Amphibolite (DAM), Anorthosite (MAN), Central Amphibolite (CAM), Unexpected Ultramafic (UUM), and Timoni Amphibolite (TAM).

4.2.4 Vegetation

A reconnaissance flora and vegetation survey was conducted by Native Vegetation Solutions (2022) and identified eight major vegetation groups, with Mulga over *Maireana sedifolia* shrubland and open chenopod shrubland being the most dominant.

The survey recorded 87 species across a 617.4 ha area. No Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) were identified within or adjacent to the proposed disturbance footprint. The closest PEC, the Perrinvale/Walling vegetation complex (Priority 1), is located approximately 6 km west of the premises.

Vegetation condition within the survey area ranged from ‘Completely Degraded’ to ‘Very Good’, with the majority classified as ‘Good’. Areas affected by historical mining and exploration

activities were generally in 'Degraded' condition. Two declared pest species, Devil's Rope (*Cylindropuntia imbricata*) and Common Prickly Pear (*Opuntia stricta*), were recorded.

Proposed clearing for the premises is proposed to be limited to areas necessary for infrastructure development, and vegetation impacts are to be mitigated through progressive rehabilitation and implementation of weed hygiene protocols.

4.2.5 Hydrology

There are no permanent water courses or bodies on the premises. The premises is located within the upper reaches of the Raeside-Ponton catchment with floodwaters generally flowing from southwest to northeast. The site is characterised by internally draining terrain with ephemeral creek systems that flow only in response to significant rainfall events. Surface water generally flows from southwest to northeast, with local drainage lines forming across gently sloping plains and incised channels (Advisian 2023).

4.2.6 Hydrogeology

Hydrogeological investigations conducted by Advisian (2022) and Rockwater (2023) indicates that regionally, the premises lies between the Raeside and Rebecca paleochannels, which are regionally significant groundwater systems. These paleochannels contain sand and clay aquifers, with salinity ranging from brackish to hypersaline. Fresh to brackish groundwater is generally restricted to tributary sands and calcrete units, which exhibit higher secondary porosity and are considered prospective for localised water supply.

The depth of groundwater at the premises ranges from shallow (several metres below ground level) in low-lying areas to several tens of metres in elevated areas. Groundwater flow is inferred to follow topographic gradients, generally moving from elevated areas toward low-lying zones. Flow gradients are low, and recharge is limited, occurring primarily through direct infiltration following significant rainfall events.

At the premises, groundwater quality ranges from fresh to brackish in the shallow aquifer, to saline in the fractured rock aquifer, and hypersaline in the paleochannel aquifer.

The groundwater recharge rate is low and occurs primarily through rainfall infiltration following larger rainfall events.

5. 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.

5.1 Source-pathways and receptors

5.1.1 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 2 below. Table 2 also details the 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 the IWLTSF, processing plant and associated infrastructure	Air / windborne pathway	• Watering of roads for dust suppression purposes will occur as required; • Dust suppression during construction activities; • Vehicle speeds and movements shall be managed via a Traffic Management Plan; and • Implementation of a dust monitoring program using installed dust monitors.
Sediment laden stormwater		Overland runoff	• Bunding and surface water management measures installed for stockpile areas.
Commissioning and operation			
Dust including tailings dust	Operation of the IWLTSF	Air / windborne pathway	• Daily inspections of the IWLTSF will involve an assessment of dust emissions being generated from deposited tailings; • Implementation of a dust monitoring program using installed dust monitors on site; and • Dust suppression of tailings using water carts, as required.
Tailings supernatant containing cyanide, acid, dissolved solids, metals and metalloids		Seepage to groundwater	• IWLTSF basin will be constructed with an HDPE liner with a permeability of less than $1x10^{-8}$m/s; • Groundwater monitoring bores will be installed around the IWLTSF facility and process dam and monitored for evidence of groundwater mounding and potential impacts on groundwater quality; and • IWLTSF design includes an underdrainage, water capture system to return any seepage to the process dam for reuse in processing.
		Direct ingestion by fauna	• Daily inspections of the IWLTSF include checking for signs of fauna and any fauna deaths; • Employ the use of deterrents, such as bird cannons, when required; and • Regular monitoring of water quality for the process pond, settlement pond, and IWLTSF decant for WAD cyanide levels.
		Overtopping of IWLTSF	• IWLTSF is operated with a designed freeboard of 0.5 m; and

Emission	Sources	Potential pathways	Proposed controls
			• Daily inspections of the facility to monitor for evidence of geotechnical instability and check freeboard level.
Spillage of tailings and return water through leaks, pipeline ruptures or failure	Tailings delivery and return water pipes	Direct discharge to land	• In the event of a leak or pipe burst, the Process Plant Superintendent is to be notified and the affected pipeline shit down until repaired and the spilled materials recovered.
Process water	Process water ponds	Overtopping leading to overland runoff	• The process water dam will be constructed with an HDPE liner with a permeability of less than $1x10^{-8}$m/s; • The process water dam will be constructed with an HDPE liner with a permeability of less than $1x10^{-8}$m/s; • Dam is commissioned at reduced capacity (i.e. <50%); and • Continuous, in situ telemetry monitoring pond level.
		Direct ingestion by fauna	• Employ the use of deterrents, such as bird cannons, when required; and • Regular monitoring of water quality for the process pond, settlement pond, and IWLTSF decant for WAD cyanide levels.
Noise	Operation of processing plant	Air / windborne pathway	• Operational activities are to comply with the relevant provisions of the Environmental Protection (Noise) Regulations (1997); • Use new generators with modern noise suppression devices attached; • Regularly service and maintain vehicles, plant, equipment and generators to maintain an appropriate sound power level; • Ensure machinery and mobile equipment is appropriately operated by competent and trained operators to minimise excess noise and vibration; and • Ensure internal combustion engines are fitted with a suitable muffler and are in good repair.
Dust		Air / windborne pathway	• Dust suppression will be installed on all chutes and conveyors on the Process Plant; • All conveyors will have dust suppression

Emission	Sources	Potential pathways	Proposed controls
			installed; • Watering of roads for dust suppression purposes will occur as required; and • Vehicle speeds and movements shall be managed via a Traffic Management Plan.
Hazardous chemicals (cyanide, sodium hydroxide, hydrochloric acid, hydrogen peroxide, flocculant, antiscalent, leach aid)		Spills resulting in overland runoff or seepage	• Hazardous chemicals, fuel and other hydrocarbons will be stored in accordance with Australian Standards; • All personnel using or handling hazardous materials will be made aware of the MSDS guidance on dealing with spills of that material prior to commencing work and will be trained in spill responses; • Spill management equipment appropriate to the volume and type of hydrocarbons or chemicals being stored will be available, clearly labelled, and highly visible at the chemical/hydrocarbon storage location at all times; • Spillages will be contained and managed using spill kits and/or absorbent materials; • Contaminated materials will be disposed of as per regulations; • Conduct weekly inspections of storage areas to identify any leaks or issues; and • Maintain an up-to-date inventory of hydrocarbons and other dangerous goods in storage and their quantities.
Contaminated stormwater		Overland runoff	• Diversion drains will be installed around the plant site to direct surface water around the hardstand areas; • Bunding of plant site infrastructure to minimise potentially contaminated runoff; • Potentially contaminated stormwater will be directed to sumps where it will be pumped; and • Facilities managed in accordance with the *Water Quality Protection Note: Stormwater Management at Industrial Sites*.

5.1.2 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 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 2020)).

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

Human receptors	**Distance from prescribed activity**
Aurenne Mt Ida P/L Gold Project - Mine camp	Approximately 9.1 km south-west of the prescribed premises.
Environmental receptors	**Distance from prescribed activity**
Native vegetation	Within and immediately surrounding the prescribed premises.
Priority 1 Threatened Ecological Community – Perrinvale/Walling Vegetation complexes (banded ironstone formation)	Approximately 7 km west of the prescribed premises.
Threatened fauna • *Dasycercus blythi* (brush-tailed mulgara) • *Leipoa ocellata* (malleefowl) • *Calonectris leucomelas* (streaked shearwater)	Found within 10 km of the prescribed premises.
Ephemeral water lines	Intersecting the prescribed premises.
Underlying groundwater	23 to 300 meters below ground level (m bgl) at the premises
Groundwater users	51 groundwater licences (majority for mining purposes and stock watering) exist within a 10 km radius of the prescribed premises.

5.2 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 5.1. 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 5.1), 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 4.

Works approval W2995/2025/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 4 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 4: Risk assessment of potential emissions and discharges from the premises during construction, commissioning 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 the IWLTSF, processing plant and associated infrastructure	Dust	Air / windborne pathway causing impacts to vegetation health	Surrounding native vegetation TEC 7km west of prescribed premises	Refer to Section 5.1	C = Minor L = Unlikely **Medium Risk**	Y	*N/A.*	Emission to be regulated under the general provisions of the EP Act
	Sediment laden stormwater	Overland runoff causing impacts to vegetation heath	Surrounding native vegetation Drainage lines	Refer to Section 5.1	C = Minor L = Unlikely **Medium Risk**	Y	*N/A.*	Emission to be regulated under the general provisions of the EP Act
Commissiong and time limited operations								
Commissioning and operation of the IWLTSF	Dust including tailings dust	Air / windborne pathway causing impacts to vegetation health	Surrounding native vegetation TEC 7km west of prescribed premises	Refer to Section 5.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 9, 10, 11, 13 and 15	N/A.
	Tailings supernatant containing acid, dissolved solids, metals and metalloids	Seepage to groundwater causing contamination and/or mounding causing impacts to native	Surrounding native vegetation TEC 7km west of prescribed premises	Refer to Section 5.1	C = Moderate L = Unlikely **Medium Risk**	N	**Condition 2** Condition 13, 15, 17, 18 and 19	The delegated officer notes that the design does not include a protection geotextile between the aggregate and HDPE liner in the IWLTSF underdrainage trench. The delegated officer considers this an unacceptable risk where the liner may

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**				
		vegetation health						become damaged due to the friction between the drainage aggregate and the liner. The delegated officer has therefore added a requirement to place a protection geotextile between the HDPE liner and aggregate in the underdrainage trench.
		Direct ingestion by fauna impacting fauna health	Native fauna	Refer to Section 5.1	C = Moderate L = Rare **Medium Risk**	Y	Condition 13 and 15	N/A
		Overtopping of IWLTSF causing impacts to vegetation health	Surrounding native vegetation Drainage lines	Refer to Section 5.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 13 and 15	N/A
Tailings delivery, IWLTSF underdrainage system and return water pipes	Spillage of tailings, leachate and return water through leaks, pipeline ruptures or failure	Direct discharge to land / overland run off causing impacts to vegetation health	Surrounding native vegetation Drainage lines	Refer to Section 5.1	C = Moderate L = Possible **Medium Risk**	N	**Condition 2** Condition 9, 10, 11, 13 and 15	The delegated officer has included a requirement for pipelines carrying tailings or return water to have either a leak detection system or secondary containment.
Commissioning and operation of process plant	Process water	Overtopping leading to overland runoff impacting vegetation health	Surrounding native vegetation Drainage lines	Refer to Section 5.1	C = Moderate L = Likely **High Risk**	Y	Condition 9, 10, 11, 13 and 15	N/A
		Direct ingestion by fauna causing impacts to fauna	Threatened fauna	Refer to Section 5.1	C = Moderate L = Possible	Y	Condition 9, 10, 11, 13 and 15	N/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**				
		health			**Medium Risk**			
	Dust	Air / windborne pathway causing impacts to vegetation health	Surrounding native vegetation TEC 7km west of prescribed premises	Refer to Section 5.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 13 and 15	N/A
	Hazardous chemicals (cyanide, sodium hydroxide, hydrochloric acid, hydrogen peroxide, flocculant, antiscalent, leach aid)	Spills / direct discharge resulting in overland runoff or seepage impacting vegetation health	Surrounding native vegetation Drainage lines	Refer to Section 5.1	C = Major L = Rare **Medium Risk**	Y	Conditions 9, 10 and 11 **Condition 1**	The delegated officer considers it appropriate that the process plant is located on a sealed hardstand and areas containing hazardous chemicals have appropriate containment infrastructure. Condition 1 includes hardstand and containment requirements for the processing plant.
	Contaminated stormwater	Overland runoff causing impacts to vegetation heath	Surrounding native vegetation Drainage lines	Refer to Section 5.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 9, 10, 11, 13 and 15	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.

6. 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 on 2 July 2025	None received	N/A
Local Government Authority advised of proposal on 1 July 2025	None received	N/A
Department of Mines, Petroleum and Exploration (DMPE) advised of proposal 1 July 2025	DMPE replied on 9 July 2025 advising that a Mining Proposal (MP) and Mine Closure Plant (MCP) for the project have been received and are currently under assessment. There were no known issues at the time of the letter.	Noted.
Other stakeholders advised of proposal on 1 July 2025	None received	N/A
Applicant was provided with draft documents on 26 September 2025	The applicant provided an email response on 14 October 2025. The response provided minor additional information required by the department and no additional comments on the draft package.	Noted.

7. 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 Pty Ltd (2023), *Mt Ida Lithium Project Hydrological Assessment*, Perth, Western Australia.
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.