



Application for Works Approval

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

Works Approval Number W2997/2025/1

Applicant Andy Well Mining Pty Ltd

ACN 158 108 895

File number APP-0028165

Premises Andy Well Gold Project
Mining Tenement M51/870
MEEKATHARRA WA 6642

As defined by the premises map attached to the issued works approval

Date of report 08/01/2026 – FINAL

Proposed Decision Intent to grant works approval

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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, commissioning and time limited operation of the premises. As a result of this assessment, works approval W2997/2025/1 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

Meeka Metals Ltd (Meeka) owns the Murchison Gold Project via its subsidiary called Andy Well Mining Pty Ltd (the applicant) and is planning to commence mining and processing operations, starting with mining a series of open pits at the Gnaweeda Project.

Mining operations occurred at the Premises between 2012 to 2017 before the premises was placed into care and maintenance. The applicant purchased the Premises from the previous owner (Silver Lake Resources) in February 2021. The premises is approximately 45 km north of Meekatharra.

On 25 March 2025, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act). The application seeks approval to undertake construction works of the Integrated Waste Landform (IWL) for a new tailings storage facility (TSF 3) built next to the existing tailings facility.

The applicant has commenced mining and process operations starting with mining a series of open pits at the Gnaweeda Project. Mined ore is to be trucked from the Gnaweeda Project to the Premises where processing will occur. The existing process plant remains largely intact, with only the ball mill removed. The applicant has purchased a 'like for like' replacement ball mill which will be installed to allow processing of ore to resume. The applicant does not plan on making any changes to previous process methodology with produced tailings expected to represent previous operations at the Premises and predicted to be as follows:

- Total Cyanide ex-plant 100 mg/L
- Weak Acid Dissolvable (WAD) Cyanide ex-plant <50 mg/L
- WAD Cyanide in tailings return water <50 mg/L
- Salinity of process water 1,400 mg/L Total Dissolved Solids (TDS)
- Salinity of tailings return water 1,400 mg/L TDS
- pH of slurry ex plant 10 to 11.
- Average slurry density ex-plant 40% solids.

Key Findings: The department is aware of the other approvals with the Mining Proposal (Reg ID 500333) and Native Vegetation Clearing Permit (NVCP) amendment to existing permit (CPS10466/2) that are sitting with Department of Mining, Petroleum and Exploration (DMPE, previously DEMIRS). These other approvals will need to be processed before any works on the IWL TSF 3 can be progressed. Clearing and the validity of previous vegetation surveys for the IWL will be considered under the *Mining Act 1978* as part of DMPE’s assessment on the amendment to clearing permit.

The premises relates to the category and assessed capacity under Schedule 1 of the Environmental Protection Regulations 1987 (EP Regulations) which are defined in works approval W2997/2025/1. 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 2020a) are outlined in works approval W2997/2025/1.

The current premises layout shown in Figure 1.

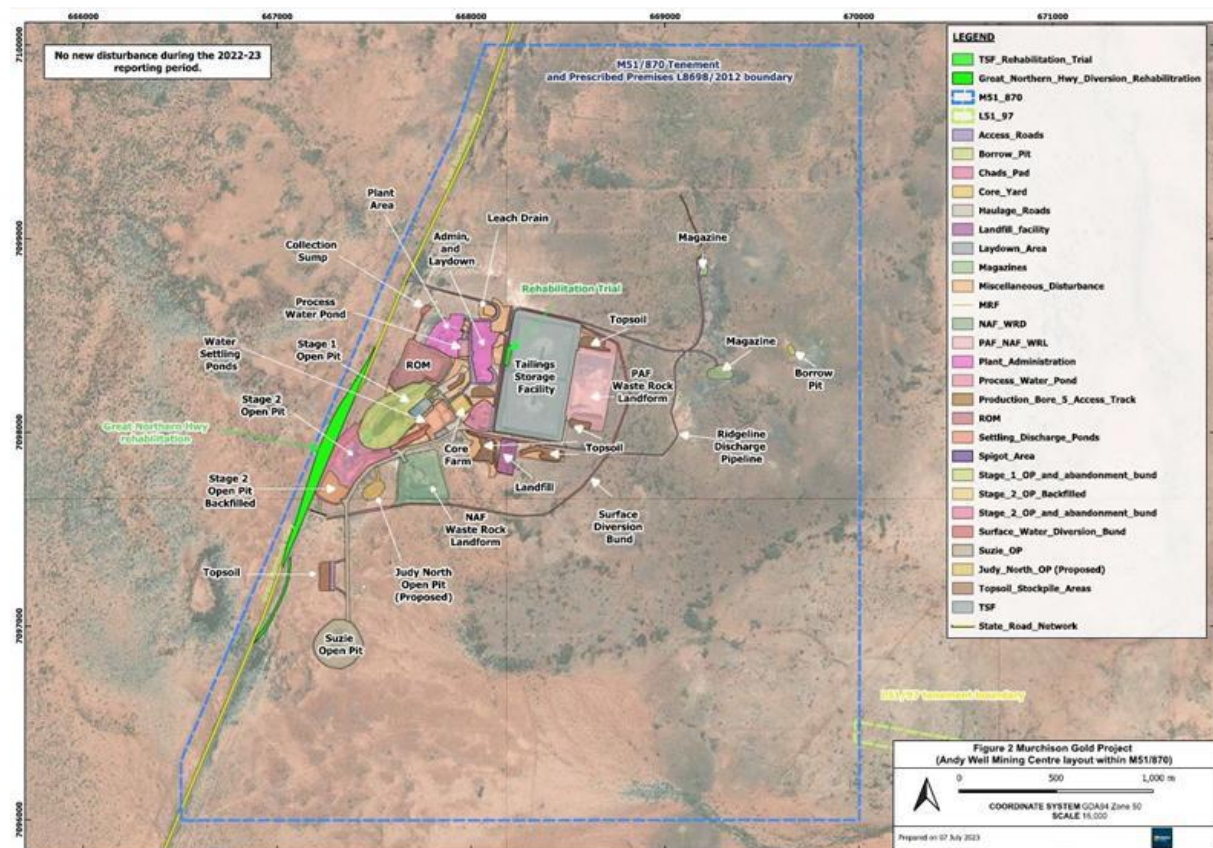


Figure 1: Andy Well Mine Layout

2.3 Operations and TSF 3 Facility

The Andy Well life of mine has been significantly extended by the addition of the Turnberry and St Annes deposits. When processing recommences, the Andy Well site will have limited capacity for tailings storage using the existing facility. To enable the increase in processing, more TSF space is required.

The department has been advised by Meeka Metals that operations recommenced in late 2024, TSF Cell A is currently being used and has 2 to 3 months of life. TSF Cell B should provide tailings storage for a period of 12 to 18 months, based on existing throughput, though these figures are likely to change if production is increased to the volumes captured in a recent licence amendment (increased from 365,000 to 700,000 tpa, APP-0029322 – final documents approved

19/11/2025 – Licence L8698/2012/1). In addition to TSF Cell A and B, the Suzie Pit (W6950/2024/1) remains available as contingency for the storage of tailings, however the applicant has advised that this is not currently the preferred option, and will likely not be used.

The tailings material has been subject to metallurgical test work to confirm the tails are not acid forming and metals within the tails are not leachable. The DMPE has provided advice to the applicant that the dry tailings can be treated as inert waste rock and can therefore be removed from the dam for reuse as construction material (Meeka Metals, 2025).

The TSF 3 facility is planned to sit immediately south of the current TSF (Cells A and B). The planned tailings will be discharged into the TSF 3 at approximately 45% solids, at a rate of 0.65 Million tonnes per annum (Mtpa) over a minimum storage life of approximately 9 years, with a minimum total 5.86 Million tonnes (Mt). The proposed location currently has a topsoil stockpile, waste rock stockpile and the exhausted landfill within it. The topsoil and waste rock will be moved to make way for TSF 3 (see Figure 2). The landfill will be backfilled, compacted and end up underneath TSF 3 eventually. A separate application has been made to amend an existing clearing permit for any clearing needed to be done prior to construction.

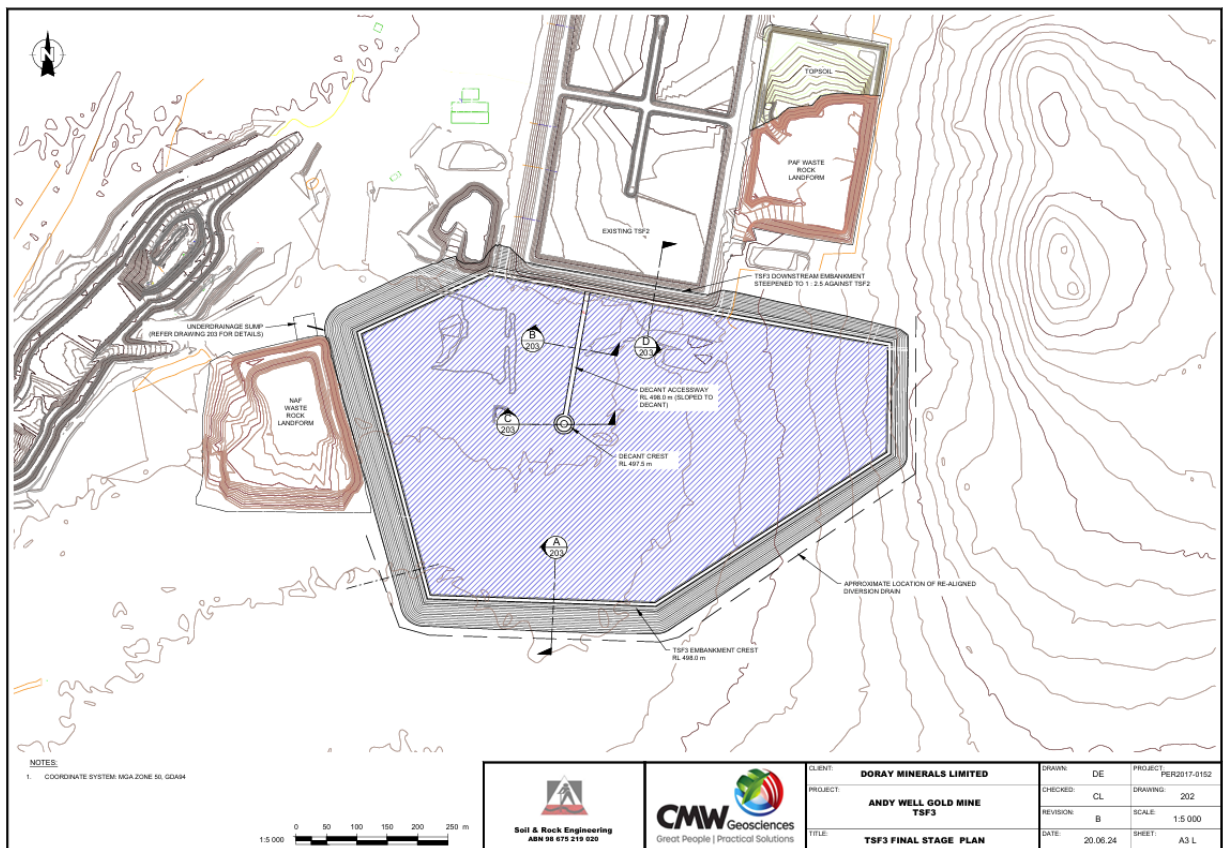


Figure 2: Premises layout including the proposed TSF3

Tailings operations and geochemical characteristics

The ore to be processed and deposited in TSF3 is the same as that previously processed and deposited into TSF1 and TSF2 at the Andy Well Project.

The Andy Well tailings samples were classified as Non-Acid Forming (NAF). The results from the multi-elemental analysis of both tailings samples indicate that the following elements may become enriched in Silver (Ag), Arsenic (As), Tellurium (Te) and Titanium (Ti). Silver (Ag) occurs as a native metal or an alloy and is stable in air and water. Titanium (Ti) readily reacts with oxygen to form TiO₂, a stable compound. Tellurium (Te) has a strong affinity to Au and Ag and is often present present as gold tellurides. Te exists in the earth’s crust as a rare stable element. Arsenic (As) concentration levels are well below Health Investigation Levels (HIL) classification F –

Commercial/industrial sites, and meet HIL classification A – Standard residential, although exceed Ecological Investigation Levels (DER, 2010).

Tailings in the form of slurry will be discharged sub-aerially from multipoint spigotting from the western end of TSF 3. Other similar single-point discharge pipes will need to be deployed from the northern and southern sides to force the supernatant water to pond around the rock filter decant which will contain a pontoon mounted pump. As the level of tailings rises, the spigotting will extend around the entire perimeter of the facility.

Tailings are transported from the process plant to the active TSF cell via an HDPE pipe. At the crest of the embankment, the pipe divides into two distribution lines to distribute the tailings around the storage. The pipework is located adjacent to the upstream crest of the embankment and perimeter access road.

The landfill site is located in the northern portion of the future IWL. The landfill was used between 2012 and 2017. A series of shallow trenches were installed into the ground and backfilled with waste and covered by waste rock. Given the underlying soil conditions of the Wiluna hard pan, the trenches were less than 1 meters deep and did not penetrate the hard pan layer. An inspection of the landfill confirmed that the underlying soils and hardpan remain undisturbed and remain suitable to be used as the base for the IWL.

2.3.1 TSF 3 Design

The proposed TSF 3 is located on relatively flat ground which slopes up to the east within the prescribed premises boundary. The southern portion of the in-situ TSF Cell B tailings is proposed to act as the foundation for the TSF 3 north wall embankment. The southern embankment of the proposed TSF 3 will divert runoff from the east into the natural drainage systems to the southwest.

A pipeline corridor from the process plant to the TSF 3 along existing access roads will be established. Some minor clearing may be required where the tailings pipeline deviates from the existing track alignment.

Embankment design

TSF 3 will be constructed with a starter embankment of waste rock and Non-Acid Forming (NAF) tails and can then be used and grown via embankment rises and backfilling with tailings. TSF 3 has a footprint of 46.5 ha at the base and will cover an area of 35.8 ha when at capacity. It will be a single cell, partially side-hill paddock style of TSF, constructed by downstream raising using mine waste sourced from existing mine waste dumps. This makes use of existing waste material, removing these structures from the mine footprint. Potentially Acid Forming (PAF) waste material may be used within the embankment, where it will be encapsulated within the centre of the embankment. This will be used to manage any Acid Rock Drainage (ARD) issues that arise with the underground mining of fresh rock, where sulphide material has not been oxidised.

The embankment of TSF 3 will be a zoned embankment comprising an upstream zone of low permeability roller-compacted tailings with a downstream zone of traffic-compacted mine waste material. The low permeability materials in the upstream zone will be sourced from the in-situ tailings in TSF Cell A and TSF Cell B.

The southern portion of the in-situ TSF Cell B tailings is proposed to act as the foundation for the TSF 3 north wall embankment. The maximum height of TSF 3 will be 17.5m after the construction of the Stage 2 embankment. The differential in hydraulic conductivity between the different fill materials is anticipated to result in the bulk embankment body built out of mine waste material remaining dry during TSF 3 operations.

Embankment materials are expected to remain dry due to effective drainage and low permeability liners. The embankment incorporates a cut-off trench founded on the hardpan

below the surficial soils, approximately 0.5m below ground level (mBGL) in order to reduce seepage losses. The embankments will be keyed into the existing TSF Cell B embankment.

The embankments for TSF 3 have design slopes of 1(V):2(H) upstream and 1(V):3(H) downstream, with a crest width of 4m on the upstream zone and 4m on the downstream zone. The upstream embankment crest will have a 2% cross-fall towards the upstream side, with a 0.5m (min height) windrow at the downstream crest, and above-ground tailings pipeline at the upstream crest.

TSF 3 physical characteristics are outlined in Table 1 below:

Table 1: Physical IWL TSF 3 Design Characteristics

Usable storage volume (Mm ³)	Greatest depth (m)	Expected depth of Tailings (m)	Footprint (ha)	Downstream slopes (H:V)
4.8	16.2	15.5	46.5	3:1

Table 2 summarises the area of the tailings surface when TSF 3 is filled with the projected production target, expected depth of tailings, tonnes of tailings to be stored at the average design dry density of 1.50 t/m³ and storage life in months for the upper bound production rates.

Table 2: TSF 3 Physical Characteristics

Expected tailings surface area (ha)	Expected final height (m)	Tonnes of tailing to be stored (1.5t/m ³)	Storage life (months) at 650,000 tpa
35	15.5	6.75	10.39

The existing drainage diversion to the east is to be modified and with a new drainage diversion (windrow) constructed adjacent to and along the eastern, southeastern and southern embankment toe of TSF 3, to divert runoff away from the embankment.

Table 3: Staged design capacity

Stage	Embankment height (mRL)	Construction sequence	Storage capacity (tonnes)	Cumulative storage (Mt)
1	487.3	Year -0.6 to 0	1,396,000	1.396
2	490.3	Year 1.5-2.0	1,442,000	2.838
3	493.3	Year 3.6 and beyond	1,533,000	4.371
4	496.0		1,596,000	5.967
5*	498.5	Year 8.8 – 9.3	1,050,000	6.934

***Note: Stages 1 to 4, involve downstream construction techniques. Stage 5 will utilise upstream construction techniques.**

Key Findings: The department notes that the construction staging for Stage 5 will be outside the scope of this works approval based on the timing of works (duration of works approvals have a nominal range 3-5 years). It is suggested that the applicant applies for the construction of Stage 5 to be added to the licence after the completion of stage 4 (and at the same time that related provisions are transferred across to the operating licence). It has therefore not been included on the works approval for this reason.

Decant system

The IWL has been designed with a central decant ring rock filter with a pontoon mounted pump inside to return water to the process plant. The water recovered by the decant will be pumped directly to the process plant for reuse. The decant causeway has design slopes of 1:1.5 (V: H) and a nominal 6m crest width. The crest of the decant causeway will have 0.5m minimum height windrows on both sides of the accessway. Breaks in the windrow on the low side will allow surface water to run off.

The rock-ring filter is designed to clarify the supernatant water to enhance the potential for high water recovery and significantly limit the spatial extent of the decant pond, which will not exceed a distance of 12.5m from the outer side of the decant rock ring. This means the total radius of the decant pond is limited to approximately 40m from the center of the decant rock ring.

2.3.2 Modelling Review and Hydrogeological Advice

The tailings will be discharged into TSF 3 at approximately 45% solids, at a rate of 0.65 Million tonnes per annum (Mtpa) over a minimum storage life of approximately 9 years, with a minimum total 5.86 Million tonnes (Mt).

Seepage volume is an important consideration in assessing the potential impacts of tailings seepage on the environment. The volume of seepage has implications for contaminant loading as well as alteration of local hydrogeological flow regime.

TSF 3 is founded on the Wiluna Hardpan, a geotechnically robust layer with low permeability and high shear strength, verified through site testing. A trench will be keyed into the hardpan to reduce seepage losses. Toe drains will be installed along the northern, western and southern embankments to capture and divert seepage into external sumps. Tailings from TSF Cell A and TSF Cell B will be compacted and used as a liner on the upstream embankment face.

TSF 3 north embankment, southern embankment of TSF Cell B will, after any loose surface materials have been removed, have a low-permeability soil liner placed on the existing TSF Cell B embankment, which will be at least 4m thick (measured along horizontal plane), with this thickness specified based on constructability considerations (layer width is dictated by compaction and earth haulage machinery width) and will be keyed into the southern extremities of the eastern and western embankments of TSF Cell B.

Tailings seepage review

As part of considering the works approval application the department has received internal advice from DWER's Contaminated Sites Branch (CSB), Principal Hydrogeologist. Their advice around seepage modelling and monitoring bores were considered as part of this assessment. A summary of this advice is outlined below:

Seepage from TSF 3 was simulated using the numerical model SEEP/W. The department considers that this is a suitable model for this purpose, as SEEP/W is widely considered to be an industry standard for estimating seepage rates from TSFs.

However, as is the case with all subsurface water-flow models, the accuracy of the simulated potentiometric head and water flow estimates depends on whether the hydraulic properties of subsurface materials have been well characterised, and their spatial variability is well understood.

In practice, this is often not the case. This is because proponents often determine the hydraulic properties (mostly the hydraulic conductivity values) of tailings and underlying regolith materials using a limited number of laboratory and field measurements which may not fully characterise the spatial variability of these properties. To deal with these limitations, modellers are generally required to undertake a sensitivity analysis to determine how varying the hydraulic properties in a numerical model would affect simulated seepage rates and of potentiometric heads. Estimates of seepage are then provided as a range of plausible values rather than as a single value.

Further information on undertaking sensitivity analyses for groundwater models can be found in Chapter 5 of the Australian Groundwater Modelling guidelines (National Water Commission, 2012).

For these reasons, the SEEP/W modelling results should be considered to be preliminary estimates based on limited calibration. Using the criteria outlined in the Australian Groundwater Modelling Guidelines (refer to Table 2-1 in National Water Commission, 2012), the model would be classified as a Class 1 model, the lowest category in the three-class system. This means that the model results are likely to have a significant amount of associated uncertainty.

CSB also considers that the seepage rate of 69 m³/day for the proposed facility that was determined from the water balance in Attachment 4 may be an underestimate. The reasons for this assessment include:

- (i) The proponent is likely to have overestimated the extent to which water is lost by evaporation from the TSF.

The Attachment 4 water balance has assumed that evaporation from the surface of the TSF will be about 70% of the monthly pan-evaporation rates. This is not correct, as this evaporation rate only applies to the open-water area of the TSF (i.e., the area of the decant pond), whereas the evaporation rates from the unsaturated beach areas on the TSF are likely to be much lower. This means more water is likely to infiltrate into the tailings pile than indicated in the water balance.

- (ii) The proponent is likely to have overestimated the extent to which drains within the TSF will capture infiltrating water

Drains within TSFs often become less effective over time as ferruginous precipitates progressively accumulate within these structures. This can reduce the rate of water recovery from the decant pond. It can also cause increased pore pressures near the base of a TSF, which can lead to increases in the seepage rate through the base of the facility.

Based on information presented in Waterhouse and Friday (2000), the actual seepage rates from TSFs with a similar size and construction to TSF3 are usually in the range of about 100-200 m³/day rather than the predicted rate of about 69 m³/day for this facility.

Groundwater mounding and monitoring bores

There is sensitivity of the Murchison River Catchment area, which includes calcrete aquifers that host endemic aquatic invertebrates, which are sensitive to changes in water quality and hydrology. The quality of groundwater within the mine area is generally high, with low levels of dissolved metals and other salts.

The water recovered by the decant will be pumped directly to the process plant for reuse. The water recovery system, pumps and pipes must be sized for an operating capacity of not less than 70% of the slurry water volume at the maximum static head. Perimeter monitoring recovery bores are to be along strike to the southwest, adjacent to this facility to supplement the existing monitoring bores installed for TSF Cell A and TSF Cell B.

The applicant has stated that groundwater mounding is not expected to be an issue with the new TSF. The design of the TSF 3 is such that seepage from the facility is diverted to an underground drain where water is then recovered and returned to the system. As outlined above, it is expected the actual seepage rates from the TSF are expected to be higher than predicted. Given this, some groundwater mounding is expected and can be managed with increased monitoring.

There are currently a series of monitoring bores around the existing TSF that provide ongoing groundwater quality monitoring in line with the conditions of the licence L8698/2012/1. With the construction of the TSF 3, existing bores TSFMB8 -11 will remain in place. Bores TSMB7,

TSMB12 and TSMF13 will be lost in the construction of TSF 3 (see Figure 3).

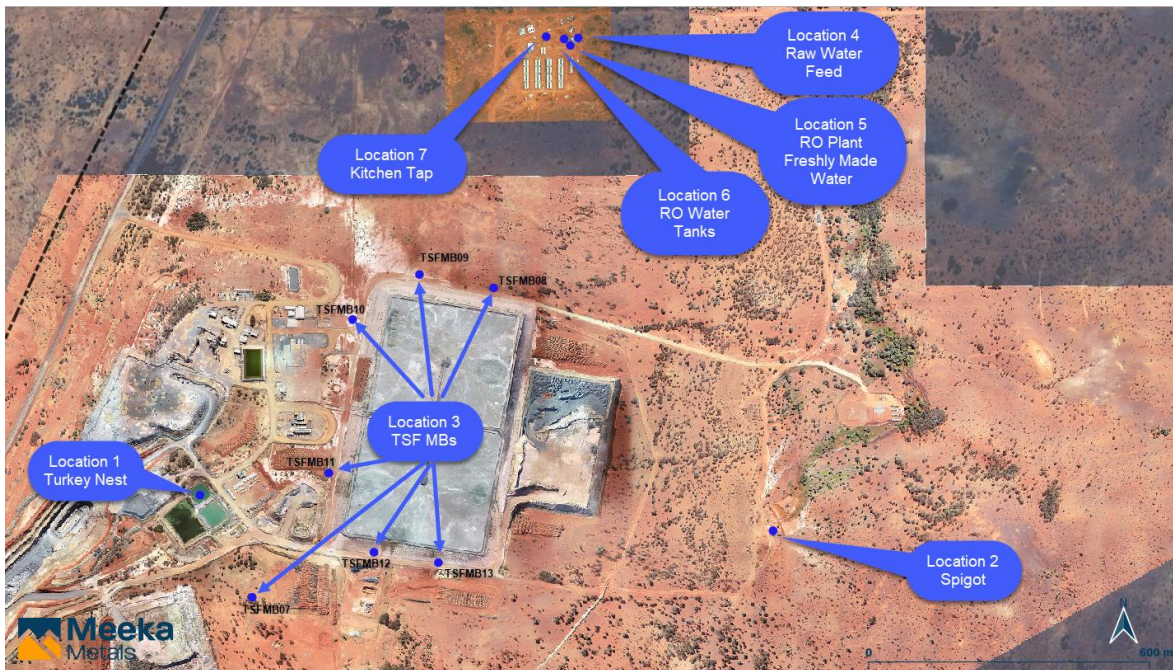


Figure 3: Existing monitoring bore locations

Natural groundwater flows westerly, but due to dewatering from operations, water flow within the area flows from south to north, meaning the bores that will remain in place are the most critical for water quality monitoring.

The four new bores (TSF3MB01 – 04) will be installed at the southern end of the TSF 3 to allow this area to be investigated. CSB considers the proposed locations of the replacement bores are reasonable, but it is not known whether they have been specifically located in the vicinity of bedrock structural features that are potential conduits for groundwater flow.

In addition to the proposed monitoring bore sites, the department requires two additional monitoring bores (TSF3MB05 and TSF3MB06) to be installed near TSF 3 to the south east (see Figure 4 below) to provide information about the natural background quality of groundwater in the area.

This is considered to be necessary, as groundwater quality data that was provided in reports that were reviewed by CSB indicated that concentrations of some metal(loid)s were elevated above concentrations that are naturally measured in groundwater in the region. This is especially the case for concentrations of cobalt and selenium in groundwater, although concentrations of these chemical constituents are not currently at levels that are considered to be harmful to local environmental receptors.

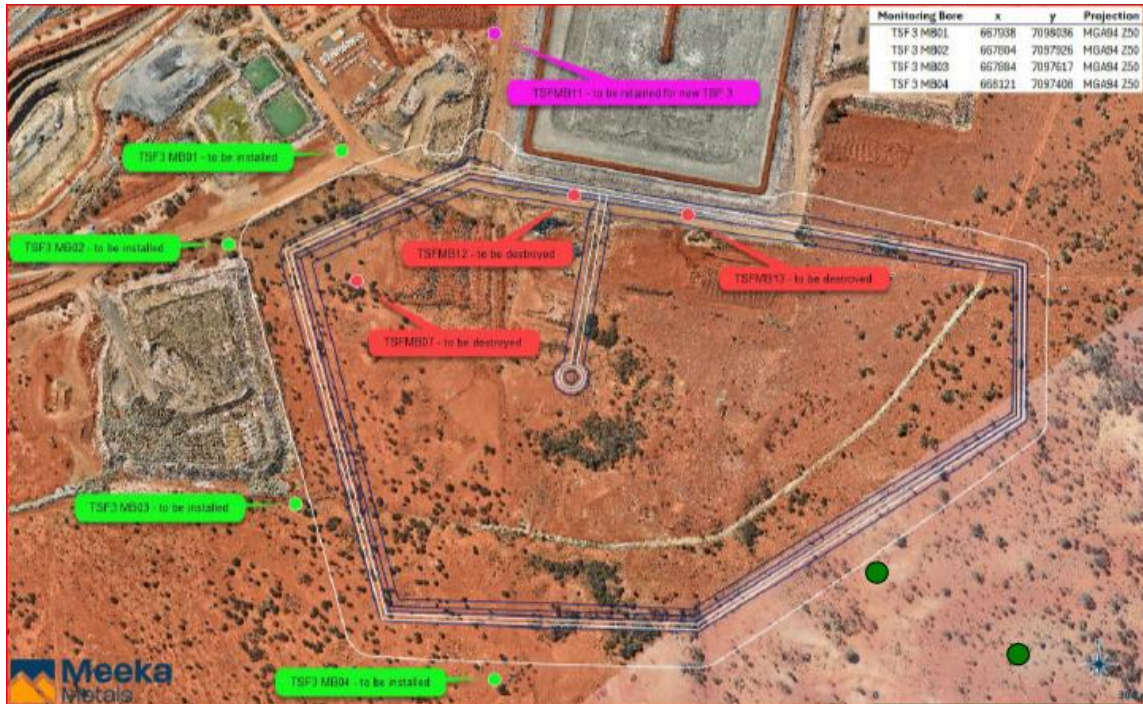


Figure 4: Additional bore monitoring locations (in dark green)

Groundwater analytical suite changes

The reports that were reviewed by CSB suggest that only a limited suite of analytes are measured in groundwater samples from monitoring bores in the area. In particular, insufficient monitoring data is collected to assess the chemical composition of groundwater at the site, and to determine whether its composition has been affected by mining activities.

Consequently, it is recommended that the licence conditions for TSF3 includes the requirement to measure the suite of major ions (*i.e.*, sodium, potassium, calcium, magnesium, chloride, sulfate and bicarbonate ions) in groundwater samples.

This is because changes in the overall proportions of these ions in groundwater (such as increases in sulfate concentration and of the sulfate: chloride ratio) can be sensitive indicators of the effect of seepage from TSFs on groundwater quality, and can be early-warning indicators that groundwater is being contaminated by seepage.

It is also recommended that tellurium is added to the analytical suite in monitoring bores. This is because this metalloid is present in elevated concentrations in mineralisation at the Andy Well and nearby mineral deposits. This metalloid is also highly toxic to a range of environmental receptors, due to the similarity of its chemical behaviour to selenium. Limited information suggests that the regulatory trigger value for this element in groundwater should be about 100 µg/L.

3. Risk assessment

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

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

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction / operation which have been considered in this decision report are detailed in Table 4 below. Table 4 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 4: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Clearing of vegetation for pipeline corridors and TSF pad. Installation of tailings discharge and return water pipelines, pumps	Air / wind dispersion causing dust impacts, potential health impacts, smothering vegetation and impacting traffic on Great Northern Hwy.	A water cart will be used to control dust emissions during clearing and earth moving activities.
Operations (including commissioning and time limited operations)			
Operation of tailings discharge and return water pipelines.	Pipeline spills and leaks	Direct discharge to land. Interaction with underlying groundwater	Pipeline installed as per Australian standard (AS/NZS 4130:2003- Polyethylene pipes for pressure applications); Pipelines to and from the pits will have bunding to prevent spillage of tailings or return water into the surrounding area in the event of pipeline failure; Pipeline contained within a V drain (or earthen bund) with regularly installed collection sumps to contain leaks. Pre-use inspection and commissioning to identify any leaks; and Daily pipeline inspection for leaks, ruptures or any signs of damage.
Seepage of leached	Stored tailings in new TSF3	Seepage to land through TSF3	Minimising the supernatant pond to the smallest practical size;

Emission	Sources	Potential pathways	Proposed controls
metals and/or cyanide from the initial tailings discharge		embankments and base	<p>Use of decant pump to remove water for reuse at the process plant;</p> <p>Regular inspections of the embankment for geotechnical stability and structural integrity;</p> <p>Embankment built as per approved design;</p> <p>Monthly sampling for pH, conductivity, TDS and metals; and</p> <p>Undertake rehabilitation of the TSF3 at end of life as soon as practically possible. Mine waste and topsoil will be used to cap the tailings surface.</p>
Overtopping of TSF with water or tailings		Direct discharges from overtopping	<p>Towards the end of the life of TSF3, an adequate freeboard of 0.7 m (minimum) must be maintained;</p> <p>Tailings operation manual followed; and</p> <p>Regular inspections of freeboard.</p>
Seepage from the TSF infiltrates the ground, raising the water table in the surrounding area.	Seepage from TSF3	Interaction with underlying groundwater	<p>Underground drain where water is recovered and returned into the decant system;</p> <p>Groundwater quality from outside the pit bund will be compared with historical water quality, to ensure that water within the aquifer is not being influenced from water being deposited into the TSF;</p> <p>Wiluna hard pan layer can impede deep drainage;</p> <p>Groundwater depth must remain below 4 m; any exceedance prompts operational changes; and</p> <p>Dewatering of active mining area lowers local groundwater levels to further prevent mounding.</p>
Supernatant pit water containing metals and residual cyanide	Storage of tailings material generated from ore processing (gold)	<p>Direct ingestion by fauna (birds and bats)</p> <p>Interaction with pastoral bores</p>	<p>Operate decant infrastructure (pontoon pump) to minimise supernatant pond size;</p> <p>Routine water sampling to monitor quality;</p> <p>The plant currently has a licence which specifies the WAD concentrations in tailings water. This will not be altered by the installation of a new TSF and the limit will be adhered to and any exceedances will be reported; and</p> <p>No additional controls proposed.</p>

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 5 and 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 5: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Great Northern Highway	600m east of TSF3
Yugnunga-Nya Native Title Claim Group	Includes M51/870
Karalundi Aboriginal Education Community	~10 km north of the Premises. Screened out. Distance is considered too great to be considered a receptor for this application.
Killara (Munarra) Homestead	~6 km south-east of the Premises on higher ground (~13 m higher). Screened out. Distance is considered too great to be considered a receptor for this application.
Munarra Station Pastoral Lease Holder	The Premises is located on Munarra Station
Environmental receptors	Distance from prescribed activity
Groundwater	Depth to groundwater is approximately 25 - 27 metres below ground level (mBGL) at the Premises.
Migratory bird species	Premises is located within a defined migratory route (bird corridor).
Threatened/Priority Flora Vegetation	There is no Threatened or Priority Flora recorded within a 2km radius of the Prescribed Activity. Screened out. Distance is considered too great to be considered a receptor for this application.
Threatened/Priority Ecological Communities	There are no Threatened Ecological Communities or Priority Ecological Communities within a 2 km radius of the Premises. Screened out. Distance is considered too great to be considered a receptor for this application.
Threatened/Priority Fauna	No Threatened/Priority Fauna within a 2 km radius of the Premises. Screened out. Distance is considered too great to be considered a receptor for this application.
Surface Water	No permanent surface water systems or drainage channels are recorded within a 2km radius of the Premises. Drainage at the Premises and the immediate

	<p>surrounding area is through broad sheet-flows.</p> <p>Screened out. Distance is considered too great to be considered a receptor for this application.</p>
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3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the delegated officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 6.

Works approval W2997/2025/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 6 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises i.e. TSF3 activities. 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 6: 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 / DWER comments
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Construction								
Vehicle Movements. Clearing of vegetation for pipeline corridors. Activities relating to the construction of the IWL TSF3.	Dust	Air / wind dispersion causing dust impacts, potential health impacts, smothering vegetation.	Surrounding vegetation. General traffic on Great Northern Hwy.	Refer to Section 3.1	C = Minor L = Possible Medium Risk	Y	Condition 1 – Design and construction installation / requirements Condition 2 – Dust management requirements	The general provisions of the EP Act also apply.
	Noise	Windborne noise / vibrations which may disrupt foraging behaviour.	Fauna	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	No conditions imposed. <i>The Environmental Protection (Noise) Regulations 1997</i> apply.
	Sediment laden stormwater	Overland runoff causing sedimentation of surface water drainage	Surrounding vegetation Surface water drainage lines	Refer to Section 3.1	C = Minor L = Possible Medium Risk	Y	N/A	No conditions imposed. <i>The Environmental Protection (Unauthorised Discharges) Regulations 2004</i> applies
Commissioning and Operation (including time-limited-operations operations)								
Deposition of tailings into IWL TSF3	Dust from TSF3 embankments and/or surface	Air / windborne, then deposition. Dust deposition on surrounding vegetation impacting vegetation health	Surrounding vegetation. General traffic on Great Northern Hwy.	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	N/A	No conditions imposed. The general provisions of the EP Act apply
	Tailings supernatant containing dissolved solids, metals	Seepage from the TSF potentially contaminating and waterlogging the soil impacting on vegetation health and groundwater	Soil and vegetation in vicinity of TSF3.	Refer to Section 3.1	C = Moderate L = Possible Medium Risk	N	Conditions 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23 and 24	Conditions 1 to 6 – Design and construction installation / requirements and associated compliance reporting requirements Conditions 7 and 8 – Monitoring well design and construction installation / requirements

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls / DWER comments
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
	and metalloids	quality	Groundwater.					and associated compliance reporting requirements (includes requirements to install two additional wells as outlined in Section 2.3.2 of this report. Condition 9 – Baseline groundwater monitoring requirements specified Condition 10 to 12 – Environmental commissioning requirements Condition 13 – groundwater monitoring requirements specified for commissioning period
		Groundwater mounding potentially impacting vegetation	Vegetation in vicinity of TSF3. Groundwater impacts. Migratory birds (migratory route)	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y		
	Tailings and contaminated water	Overtopping resulting in direct discharges to land causing contamination of surrounding soils and impacting vegetation health	Soil and vegetation in vicinity of TSF3. Groundwater impacts. Migratory birds (migratory route)	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23 and 24	Condition 14 and 15 – Environmental commissioning reporting requirements Condition 20 – Infrastructure and equipment requirements during time limited operations Condition 21 and 22 – Monitoring during time limited operations and emission limits Condition 23 and 24 – time limited operations reporting requirements
	Weak acid cyanide (WAD-CN) levels in tailings / supernatant pond	Direct interaction with TSF supernatant pond and ingestion of pond water Detrimental impact on health and wellbeing of fauna.	Fauna / migratory birds.	Refer to Section 3.1	C = Major L = Possible Medium Risk		Conditions 13, 14, 15, 20, 21, 22, 23 and 24	See above for a description of the conditions imposed. The Delegated Officer has determined that additional regulatory controls are required for managing the risk of tailings supernatant impacting transient wildlife (including birdlife) as a result of direct ingestion of tailings supernatant. Specifically, the applicant is required to undertake monitoring of the decant pond water quality during time limited operation (Condition 21). Weak acid dissociable cyanide (WAD CN) concentrations at the decant pond is of

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls / DWER comments
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
								particular concern, because: <ul style="list-style-type: none"> previous tests measuring WAD CN concentrations above 50 mg/L. water quality at the decant pond may not be saline enough to render to water unpalatable.
Tailings delivery and return water pipelines	Spillage of tailings and return water through leaks, pipeline ruptures or failure	Direct discharge to surrounding soils and overland flow to nearby drainage lines. Contamination of soils causing ecosystem disturbance. Contamination of surface water with sediment and metals in sediment causing ecosystem disturbance. Potential impacts to underlying groundwater from leaks and spills infiltrating to ground	Impacts to groundwater. Native vegetation	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Conditions 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22, 23 and 24	See description above of conditions imposed. <ul style="list-style-type: none"> Conditions 1 to 6 – Design and construction installation / requirements and associated compliance reporting requirements Condition 11 requires visual inspection of pipeline infrastructure during commissioning. Condition 20 requires visual inspection of pipeline infrastructure during operations. Licence L9423/2024/1 also has existing conditions in relation to pipelines including: <ul style="list-style-type: none"> Condition 14 – Pipeline management

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

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

4. Consultation

Table 7 provides a summary of the consultation undertaken by the department.

Table 7: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 7 July 2025.	None received	N/A
Local Government Authority advised of proposal on 7 July 2025.	The Shire of Meekatharra provided no response.	N/A
Department of Mines, Petroleum and Exploration (DMPE) advised of proposal 7 July 2025.	DMPE replied on 30 July 2025 advising that the applicant has submitted an amended mining proposal (Reg ID 500333) which includes the proposed integrated waste landform and is currently under assessment by DMPE. DMPE did not find anything significantly concerning or wrong with the proposal, but are awaiting comments and certain items to be addressed by the proponent.	N/A
Yamatji Marlpa Aboriginal Corporation – representing the Yugunga-Nya Native Title Claim Group – advised of proposal on 7 July 2025.	YMAC advised they no longer represent Yugunga-Nya Native Title Claim Group on 25 July 2025.	The department has reached out to the Yugunga-Nya Aboriginal Corporation RNTBC (YNPBC) in response to the comments received YMAC.
Yugunga-Nya Aboriginal Corporation RNTBC (YNPBC) – advised of proposal on 28 July 2025.	See Appendix 1.	See Appendix 1.
Applicant was provided with draft documents on 8 December 2025	Information was provided by the applicant as to spigot locations and monitoring bore identifiers. No further comments provided, draft documents accepted.	N/A

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

- Australian National Committee on Large Dams (ANCOLD), 2019, *Guidelines on Tailings Dams - Planning, Design, Construction, Operation and Closure*, Rev 1, Australia
- Australian National Committee on Large Dams (ANCOLD), 2012, *Guidelines on the Consequence Categories for Dams*, Australia
- Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia
- Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia
- DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia
- Department of Environment and Conservation (DEC), 2010. *Assessment Levels for Soil, Sediment and Water*. Government of Western Australia
- Department of Mines and Petroleum (DMPE), 2015, *Guide to the preparation of a design report for tailings storage facilities (TSFs)*, Government of Western Australia
- Department of Mines and Petroleum (DMPE), 2013a, *Tailings storage facilities in Western Australia*, Government of Western Australia
- Department of Mines and Petroleum (DMPE), 2013b, *Code of Practice: Tailings storage facilities in Western Australia*, Government of Western Australia
- Meeka Metals, 2025, *Works Approval Application and Supporting Information Document*, Western Australia (APP-0028165).
- National Water Commission, 2012. *Australian Groundwater Modelling Guidelines*. NWC Waterlines Report Series, No 82.
- Waterhouse, J. and Friday, R., 2000. *To line or not to line – the effect of geometry on seepage rates from tailings storage facilities*. Proceedings of the 7th Congress of the International Mine Water Association.

Appendix 1: Summary of consultation undertaken by the department

Condition	Summary of applicant's comments	Department's response
Yamatji Marlpa Aboriginal Corporation (YMAC) advised of proposal 1 July 2025.	1. YMAC advised that they are not representing Yugunga-Nya NT on 25 July 2025.	DWER reached out to YNPBC on 28 July 2025.
Yugunga-Nya RNTBC (YNPBC) advised of proposal on 28 July 2025.	2. YNPBC requested an additional 7 days alongside original 15-day period to comment on the application. YNPBC provided comments 15 August 2025.	DWER granted an additional 7 days to provide comment on the application.
	3. <u>Conflicting, Misleading, and False Information</u> Meeka Metals falsely claims there is an existing Native Title Mining Agreement and that YNPBC supports the Andy Well Project. YNPBC states no such agreement exists and they do not support the project. Claims of robust heritage practices and voluntary relocation of infrastructure are disputed; actions were only taken after regulatory instruction, with no engagement with YNPBC.	DWER notes YNPBC's claims with respect to an existing Native Title Mining Agreement <i>not</i> being in place for the Murchison Gold Project (as reported in the corresponding works approval application – APP-0029322). On the 10 September 2025, DWER sent YNPBC's feedback to the Licence Holder. The Licence Holder reiterated that a Native Title Mining Agreement is currently in-place. On 16 September 2025 DWER also sent YNPBC's feedback to DPLH for consideration. Please refer to the section below for DPLH's response. DWER has assessed the potential impacts of the proposed activities on sensitive human and environmental receptors, noting that Aboriginal heritage sites were considered in DWER's risk assessment process (refer to Section 3). DWER considers that the risk of potential impact from the proposed activities have been assessed and can be adequately managed through works approval W2997/2025/1.
	4. <u>Invalid and Outdated Heritage Information</u> Heritage surveys cited are outdated, methodologically flawed, or irrelevant to the current development area. No recent or appropriate heritage surveys have been conducted since the formal Native Title determination in 2021. Heritage information relied upon is from before the recognition of Yugunga-Nya as Native Title holders.	Any additional approvals or surveys required under the <i>Aboriginal Heritage Act 1972</i> (AHA) will be communicated to the Licence Holder by DPLH (refer to DPLH section below).
	5. <u>Incomplete Supporting Documentation</u> Key reports referenced in the application were not provided, preventing verification. Some referenced surveys predate Meeka Metals' ownership or fall outside accepted validity	DWER requested updated documentation from Meeka Metals as per a request for information (RFI) sent on 23 September 2025. A response and updated documentation was received 28 October 2025.

Condition	Summary of applicant's comments	Department's response
	<p>periods.</p> <p>The rehabilitation and mine closure plans are missing or lack critical detail. Documentation contains errors, inconsistencies, and unprofessional content (e.g., "Commission plan – steal from somewhere").</p>	
	<p>6. <u>Inadequate Assessment of Cultural Heritage Risk</u></p> <p>No proper assessment of risks to cultural heritage values, including direct and indirect impacts. No consideration of culturally significant flora or fauna. No heritage surveys have been conducted over the actual development area since Meeka Metals' acquisition.</p>	<p>The department has assessed the potential impacts of the proposed activities on sensitive human and environmental receptors. Note: Aboriginal heritage sites were assessed as part of wider environmental receptors (refer to Section 3). TSF 3 footprint intersects with the actual boundary of Registered site Andy Well 02-12 (ID 31787) DPLH has confirmed all of the information required regarding the salvage of these three sites to finalise a review and update the status of each to Historic (not a site).</p> <p>The department considers that the risk of potential impact from the proposed activities have been assessed and can be adequately managed through works approval W2997/2025/1.</p>
	<p>7. <u>Inadequate Environmental Risk Assessment</u></p> <p>Environmental surveys (flora, fauna, hydrology) are outdated and do not reflect current conditions or legislative requirements. No baseline groundwater data provided.</p> <p>Management of fauna interactions is inadequate and lacks transparency. No consideration of culturally significant species not listed as conservation - significant. Potential indirect impacts (e.g., spray drift, runoff) on native vegetation are not addressed.</p>	<p>Baseline groundwater data has been provided to the department through the submission of Annual Environmental Reports (AER).</p> <p>Clearing and the validity of previous vegetation surveys for the IWL will be considered under the <i>Mining Act 1978</i> as part of DMPE's assessment on the amendment to clearing permit as required (CPS10466/2) i.e. it is not within the scope of this Part V EP Act amendment application.</p>
<p>Department of Planning, Lands and Heritage (DPLH) advised of proposal</p>	<p>8. <u>Non-Compliance and On-Site Failures</u></p> <p>Construction proceeded without proper heritage clearance or consultation.</p> <p>Infrastructure (spray field) was built within 6 metres of registered heritage sites, against regulatory advice.</p> <p>On-site staff were unaware of heritage sites; no protective measures in place. YNPBC lodged a formal report of harm with DPLH.</p>	<p>The department assesses potential impacts of the proposed activities on sensitive human and environmental receptors, where Aboriginal heritage sites were assessed as part of wider environmental receptors (refer to Section 3).</p> <p>The spray field concerns raised by the TO comments were not considered relevant to this application. Any formal reports of harm under the AHA will be administered by DPLH.</p> <p>The department understands that the proposed activities will not result in direct impact of existing known heritage sites as advised in correspondence by DPLH and summarised above in item 6.</p>
	<p>9. Advice received from DPLH provides a review of the Register of Places and Objects, as well as the DPLH Aboriginal Heritage Database, indicating potential approvals may be needed under the AHA as additional infrastructure and tailing</p>	<p>DPLH advice was provided to the Applicant 18 September 2025 with instructions to contact DPLH for potential further approvals that may need to be required under the AHA. DWER is aware that the Licence Holder has</p>

Condition	Summary of applicant's comments	Department's response
<p>20 August 2025 – comments received on 16 September 2025..</p>	<p>storage (scope of a separate works approval application) may be needed as the mine has not been in use since 2017 and anticipated mine production is almost doubled since its last operation.</p> <p>DPLH also noted that a s18 Consent to Doray Minerals Ltd and Murchison Resources Pty Ltd was granted in June 2012. The section 18 Consent does not cover all of the recorded Aboriginal Heritage sites within the subject area. A condition of the Consent is that it is not transferable to any new owners of the subject land.</p> <p>Considering the above, DPLH advised that the proponent may be required to apply for new approval under the AHA for the proposed works. DPLH requested the Licence Holder to contact them to discuss potential approval requirements.</p>	<p>engaged in further discussions with DPLH about requirements under the AHA and received feedback on 8 October 2025.</p> <p>The advice noted that further to previous DPLH advice, that the following Aboriginal sites within tenement M51/870 will be avoided as part of the current proposal:</p> <ul style="list-style-type: none"> • Andy Well 05-12 (ID 31790) • Andy Well 06-12 (ID 31791) • Andy Well 07-12 (ID 31792) • Mountain Devil 04-12 (ID 31789) <p>TSF 3 footprint intersects with the actual boundary of Registered site Andy Well 02-12 (ID 31787) DPLH has confirmed all of the information required regarding the salvage of these three sites to finalise a review and update the status of each to Historic (not a site). DPLH are currently processing the update and will advise once it has been finalised.</p> <p>Once the changes have taken effect, no approvals under the <i>Aboriginal Heritage Act 1972</i> (AHA) will be required within the boundaries of Andy Well 01-12 (ID 31786), Andy Well 02-12 (ID 31787) or Andy Well 03-12 (ID 31788).</p> <p>DPLH also noted that the Yugunga-Nya Native Title Aboriginal Corporation has raised concerns around the methodology of previously undertaken heritage surveys. The AHA protects all Aboriginal sites in Western Australia, whether they have been evaluated and registered or not. Meeka Metals will need to remain aware of its obligations under the AHA.</p> <p>In closing, DPLH advised that Meeka Metals is encouraged to undertake ongoing consultation with Yugunga-Nya Native Title Aboriginal Corporation to further discuss the proposal and provide them with an opportunity to comment on the management of Aboriginal heritage in the area.</p>