



Application for Works Approval

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

| | |
|------------------------------|---|
| Works Approval Number | W2897/2025/1 |
| Applicant | Andy Well Mining Pty Ltd |
| ACN | 158 108 895 |
| File number | INS-0002897 |
| Premises | Andy Well project Mining Tenement M51/870 MEEKATHARRA WA 6642 As defined by the coordinates in Schedule 2 of the Licence |
| Date of report | 20 March 2025 |
| Decision | Works approval granted |

Abbie Crawford
MANAGER, WASTE INDUSTRIES

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W2897/2025/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary and overview of premises

On 30 October 2024, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

Andy Well Mining Pty Ltd operates the Andy Well Gold Project with a Category 5 - Processing or beneficiation of metallic or non-metallic ore, Category 6 - Mine dewatering and Category 64 Class II putrescible landfill site under L8698/2012/1 at Mining Tenement M51/870.

The works approval application is to undertake construction works and Time Limited Operation (TLO) of a Wastewater Treatment Plant (WWTP) at the premises. The premises is approximately 40 km north of town of Meekatharra.

The premises relates to the category and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W2897/2025/1. 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 W2897/2025/1.

2.3 Wastewater treatment plant and irrigation spray field

The proposed sequence batch reactor WWTP plant will operate to treat sewage in batches, with sludge removed and disposed of periodically, while the remaining water is subject to both anoxic and aerobic treatment to remove nitrates and phosphates, which will be sent to an irrigation spray field.

The plant has a proposed treatment capacity of 35 m³ per day to cater for up to 140 equivalent persons with a designed water use of 250 litres per person per day. The expected treated effluent target concentrations are shown in Table 1 below:

Table 1: Quality of treated effluent

| Parameter | Limit |
|---------------------------|------------|
| Biochemical oxygen demand | <20 mg/L |
| Total suspended solid | < 30 mg/L |
| pH | 6.5 to 8.5 |
| Total nitrogen | 30 mg/L |

| Parameter | Limit |
|------------------------|-----------------|
| Total phosphorous | 8 mg /L |
| <i>E. Coli</i> | <1000 cfu/100mL |
| Residual free chlorine | 0.2 to 2.0 mg/L |

The applicant proposed to treat the wastewater to meet the authorised maximum inorganic nitrogen and maximum reactive phosphorous in align with “Risk Category D” as described in Table 1 (Eutrophication risk based on soil type and location) of Water Quality Protection Note 22 (WQPN 22).

The irrigation of up to 35 m³/day of treated wastewater requires a 0.85 hectare spray field. The applicant has proposed a 1 ha irrigation spray field with a 0.6 ha contingency area. The original shapefile of the irrigation area, provided with the application, covered an area of approximately 2.4 ha, this was subsequently amended to 1.8 ha to move the spray field further away from sensitive receptors.

Updated location of the irrigation spray field is depicted in Figure 1 below.

2.4 Aboriginal Heritage Act 1972

The Mining Lease M51/870 tenement intersects the boundary of the following 7 Aboriginal Sites and Heritage Places:

- Andy Well 01-12 - Registered place 31786
- Andy Well 02-12 – Registered place 31787
- Andy Well 03-12 - Registered place 31788
- Mountain Devil 04-12 – Registered place 31789
- Andy Well 05-12 - Registered place 31790
- Andy Well 06-12 - Registered place 31791
- Andy Well 07-12- Registered place 31792

The applicant has advised that Doray Minerals Limited (now Andy Well) has applied for consent from the Minister for Indigenous Affairs to disturb three of these Aboriginal heritage sites under Section 18 of the *Aboriginal Heritage Act 1972*.

The application area does not intersect any of the above listed Aboriginal Sites or Heritage places, however it is close proximity to the buffer of the below sites (refer to Figure 1 below):

- Mountain Devil 04-12 – Registered place 31789
- Andy Well 05-12 - Registered place 31790
- Andy Well 06-12 - Registered place 31791

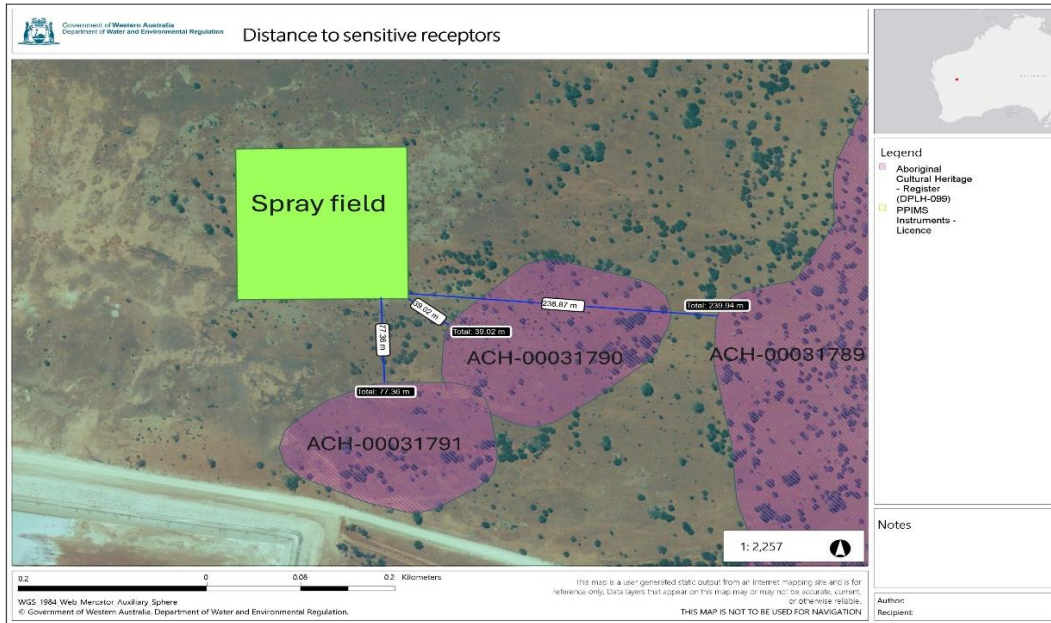


Figure 1: Distance to Aboriginal heritage sites

The Mining Lease M51/870 tenement is covered by the Yugunga-Nya Native Title Claim Group. Department of Planning, Lands and Heritage (DPLH) confirmed that an agreement is in place for the entire Murchison Gold Project.

The Yugunga-Nya native title claim has been determined and Yugunga-Nya Native Title Aboriginal Corporation RNTBC (YNNTAC) is now the relevant native title party for mining tenement M51/870.

3. Risk assessment

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

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

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and 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 WWTP and spray-field | Air / windborne pathway | Clearing will occur during periods of low wind |
| Noise | Vehicle movement on unsealed roads Operation of heavy machinery associated with construction activities | Air / windborne pathway | None proposed |
| Commissioning and time limited operations | | | |
| Noise | Operation of wastewater treatment plant | Air / windborne pathway | None proposed |
| Odour | | Air / windborne pathway | The plant will operate properly and be regularly checked. Odour emissions register will be maintained, and complaints of odour will be investigated. Sludge from the process will be transferred to a sludge tank where it is periodically pumped out by an approved transporter for disposal offsite at an approved landfill facility |
| Spills/leakage of untreated and treated wastewater, treatment chemicals or contaminated stormwater | | Overland runoff / migration into surface water ways Seepage to soil and groundwater | Pipes will be installed by qualified plumbers. Pre-commissioning inspections will be conducted. There will be exclusion zones for machinery around tanks. Spill kits will be available and clean up immediately. Pipelines will be checked and inspected before use. There will be physical separation between pipelines and groundwater. Location of plant upstream of camp to prevent interaction with surface water flows. Diversion drains will be in place if required. Chemicals will be stored as per the Safety Data Sheet (SDS). Chemicals will not be kept in large quantities. There will be high-level alarms on tanks. Alarms checked as per maintenance routine |

| Emission | Sources | Potential pathways | Proposed controls |
|--------------------|---|---|---|
| | | | Raw wastewater from the sewage pump station will be screened by a bar screen to remove larger solids and discharged into the balance tank. |
| Treated wastewater | Discharge of treated wastewater onto the irrigation field | <p>Flooding/pooling /overland runoff</p> <p>Seepage through soil and to groundwater</p> | <p>The spray field will be installed as per design with regular inspections.</p> <p>Daily inspections will be conducted to ensure that no standing water is seen.</p> <p>The volume of effluent sent to the spray field will be recorded on a monthly basis.</p> <p>The WWTP is fitted with a flow metre that will measure all water sent to the spray field.</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 3 and Figure 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

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

| Environmental receptors | Distance from activity / prescribed premises |
|--|---|
| Minor surface water lines | Approximately 2.5 km from the proposed irrigation spray field. |
| RIWI - East Murchison Groundwater area | Premises within the RIWI groundwater area |
| Groundwater depth | Depth to water is relatively uniform and has been measured at approximately 5 mbgl across the proposed development area |
| Cultural receptors | Distance from activity / prescribed premises |
| Aboriginal heritage site | <p>The following aboriginal heritage sites are located within the mining tenement;</p> <ul style="list-style-type: none"> • Andy Well 01-12 - Registered place 31786 • Andy Well 02-12 – Registered place 31787 • Andy Well 03-12 - Registered place 31788 • Mountain Devil 04-12 – Registered place 31789 • Andy Well 05-12 - Registered place 31790 • Andy Well 06-12 - Registered place 31791 • Andy Well 07-12- Registered place 31792 |

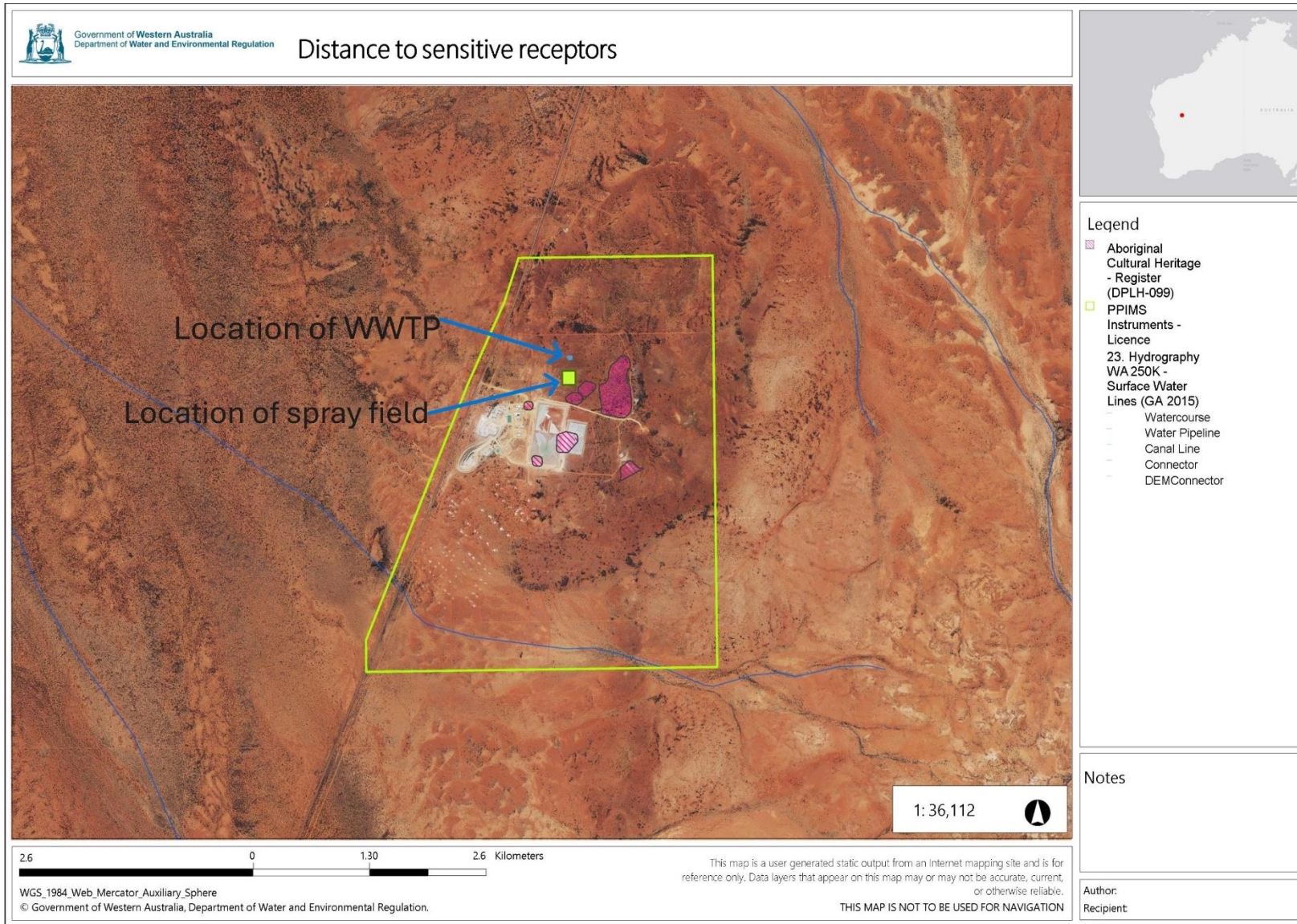


Figure 2: Distance to sensitive receptors

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IR-T13 Decision report template (short) v3.0 (May 2021)

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 4.

Works approval W2897/2025/1 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 registration 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.

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 new WWTP | Dust | Air / windborne pathway causing impacts to health and amenity | No receptors | Refer to Section 3.1 | N/A – no receptors | Y | N/A | N/A |
| | Noise | | | Refer to Section 3.1 | N/A – no receptors | Y | N/A | N/A |
| Commissioning and operation (including time-limited-operations operations) | | | | | | | | |
| Operation of wastewater treatment plant | Noise | Air / windborne pathway causing impacts to health and amenity | No receptors | Refer to Section 3.1 | N/A – no receptors | Y | Condition 1, 23 | N/A |
| Commissioning activities Operation of wastewater treatment plant Incorrect wastewater chemical treatment balance Sludge removal | Odour | Air / windborne pathway causing impacts to health and amenity | No receptors | Refer to Section 3.1 | N/A – no receptors | Y | Condition 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20 and 23 | The environmental siting of the premises and the applicant's proposed controls are considered to be effective in mitigating the impact of odour emissions from the premises during commissioning and time limited operations. Odour can be adequately regulated by section 49 of the EP Act. |
| Operation of wastewater treatment plant Infrastructure and | Spills/leakage of untreated and treated wastewater, | Seepage to soil and groundwater causing contamination | Groundwater ~ 5 mbgl Premises is | Refer to Section 3.1 | C = Moderate L = Unlikely | Y | Condition 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, | The delegated officer reviewed that proposed irrigation area and determined that it is |

| Risk events | | | | | Risk rating ¹ | Applicant controls sufficient? | Conditions ² of works approval | Justification for additional regulatory controls |
|---|--|---|--|----------------------|--|--------------------------------|---|--|
| Sources / activities | Potential emission | Potential pathways and impact | Receptors | Applicant controls | C = consequence L = likelihood | | | |
| equipment failure Maintenance works Irrigation of treated effluent that does not meet discharge quality criteria. Spills, leaks and/or discharges of untreated sewage treated effluent not meeting discharge criteria, sludge and chemicals. Storage of chemicals | treatment chemicals or contaminated stormwater | and impacting water quality | located within the Proclaimed East Murchison Groundwater area Minor surface water lines ~ 2.5 km from the proposed irrigation spray field | | Medium Risk | | 20 and 23 | sufficiently sized to accept the proposed nitrogen and phosphorous levels in the treated water. The required irrigation area was calculated to be 0.85 ha. The applicant has proposed a larger area of 1 ha, with a contingency area of 0.6 ha. Through assessment the applicant revised the location of the irrigation area to move it further away from the listed heritage sites (now approximately 40 m away). The premises is also sloped to the north west so in the event of overspray or large storm events wastewater/storm water will not flow into the heritage sites. |
| Discharge of treated wastewater onto the irrigation field | Treated wastewater | Flooding/pooling /overland runoff potentially causing ecosystem disturbance or impacting surface water quality Seepage through soil and to groundwater causing contamination and impacting water quality | Aboriginal sites and heritage places ~40 m from the proposed irrigation spray field | Refer to Section 3.1 | C = Moderate L = Unlikely Medium Risk | Y | Condition 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 20 and 23 | The delegated officer considers that the environmental siting of the premises and applicant's controls are likely to be sufficient to mitigate spills of untreated and treated wastewater, treatment chemicals or contaminated stormwater and seepage |

| 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 | | | | |
| | | | | | | | | of treated wastewater during commissioning and time limited operations. |

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 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 24 December 2024 | None received | N/A |
| Local Government Authority (Shire of Meekatharra) advised of proposal on 28 January 2025 | None received | N/A |
| Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal 28 January 2025 | None received | N/A |
| Department of Health (DoH) advised of proposal on 30 January 2025 | <p>DoH replied on 30 January 2025, stating the DoH has no objection to the proposal subject to ensuring the wastewater treatment plant complies with the Department's legislative requirements.</p> <p>Also, DoH advised that the proposed development is in proximity to a major river system. Therefore, a site-specific Site and Soil Evaluation (SSE) needs to be undertaken by a qualified consultant during the wettest seasonal time of the year (Feb - March) as per AS/NZS 1547:2012 to ensure the land application area is located and sized appropriately.</p> <p>DoH further advised that the proponent will be required to submit a formal application for each onsite wastewater treatment system, upgrade, and/or relocation of a system to the local government for assessment.</p> | <p>Noted</p> <p>The applicant has since provided a copy of DoH approval (No. 212.24) to the department.</p> |
| Department of Planning, Lands and Heritage (DPLH) advised of proposal on | DPLH replied on 31 January 2025, confirming that the area provided in the shapefile 'AW_Camp_WWTP Pad and Sprayfield area' does not intersect with any Aboriginal sites, and | <p>Noted.</p> <p>The delegated officer sent formal correspondence to</p> |

| | | |
|--|--|---|
| <p>9 January 2025</p> | <p>as such, no approvals under the <i>Aboriginal Heritage Act 1972</i> (AHA) are required for works within the shapefile area.</p> <p>Also, DPLH advised that while some Aboriginal heritage surveys have been completed over the subject land, it is unknown whether there is unrecorded Aboriginal cultural heritage present. Therefore, DPLH advised that the applicant needs to be made aware of its obligations, as the AHA protects all Aboriginal sites in Western Australia, whether they are registered or not. This includes Aboriginal sites, objects, and ancestral remains. DPLH also advised that the applicant regularly check ACHIS should new Aboriginal Cultural Heritage be reported within the subject area.</p> <p>The DPLH stated that an agreement is in place for the entire Murchison Gold Project and that Yamatji Marlpa Aboriginal Corporation (YMAC) has been advised the approval process has commenced and an activity notice has been issued.</p> <p>DPLH further advised that the Yugunga-Nya native title claim has been determined and that the Yugunga-Nya Native Title Aboriginal Corporation RNTBC (YN PBC) is now the relevant native title party. DPLH advised the proponent to contact YNNTAC as the representative for the Yugunga Nya native title holders.</p> | <p>Yugunga Nya native title holders requesting their advice regarding this proposal.</p> |
| <p>Yugunga-Nya Native Title Aboriginal Corporation (YNNTAC) advised of proposal on 13 January 2025</p> | <p><u>Correspondence summarised below:</u></p> <p>On 10 February 2025, a representative of YNNTAC provided advice regarding this application, stating the mining tenement M51/870 is 1,109.50000 ha in size and wholly within an area where Yugunga-Nya PBC holds native title rights and interests in trust for the Yugunga-Nya People pursuant to the Yugunga-Nya People Part A Determination WCD2021/0008 WAD2019/29.</p> <p>YNNTAC, via their representative, stated that pursuant to the <i>Aboriginal Heritage Act 1972</i> (WA), sites do not have to be registered to be recognised as Aboriginal heritage sites, and as such, this area is of particular cultural significance to the Yugunga-Nya People, and there is numerous other Aboriginal heritage sites present in the area subject to mining tenement M51/870.</p> <p>Furthermore, it was stated that Yugunga-Nya PBC will need to confirm whether there are satisfactory cultural heritage surveys over the area of the tenement that address the extent of the proposed activities on the tenements and their duration.</p> <p>YNNTAC raised concern that sufficient assessments had not been undertaken to determine whether the irrigation of treated wastewater would impact soil and vegetation health and if discharge would lead to water pooling. YNNTAC would also like to see contingency measures put in place in case of system failure, as well as conditions to monitor soil and vegetation health.</p> | <p>The delegated officer communicated YNNTAC representatives and explained the applicant proposed controls, soil type and regulatory controls for the emissions related construction and operation of proposed WWTP and irrigation spray field.</p> <p>The delegated officer also communicated with Andy Well Mining Pty Ltd and requested to reduce the land area in the proposed spray field to move it further way from the heritage sites. As a result, Andy Well Mining Pty Ltd provided a revised</p> |

| | | |
|---|---|--|
| | <p>On 13 March 2025, DWER received updated advice regarding the application. In the updated comments, YNNTAC representatives stated that the current design of both the proposed spray field and the already constructed tailing storage facility encroaches within the 30 m buffer zone of registered Aboriginal heritage sites, and the proposed design of the spray field seems to fail to mitigate potential impacts on Aboriginal cultural heritage adequately.</p> <p>YNNTAC advised that Andy Well 05-12 (SITE ID 31790), Andy Well 06-12 (SITE ID 31791), and Andy Well 04-12 (SITE ID 31789) Aboriginal heritage sites are not included in adjacent Section 18 processes relevant to this project, meaning these heritage sites are at risk of being disturbed if the works approval is granted. It was recommended that the spray field be redesigned to not impact Aboriginal cultural heritage.</p> | <p>shapefile with a ~1.8 ha area; this change increases the distance between the spray field and the Aboriginal heritage area.</p> <p>To address the concerns raised by YNNTAC representatives the delegated officer has added conditions to the works approval requiring the infrastructure to be constructed on a bunded hardstand as a contingency measure in case of system failure. Conditions were also added requiring a minimum spray field area to ensure there is no pooling, or over application of nutrients doesn't occur. Conditions relating to monitoring of treated wastewater were also added.</p> |
| <p>Applicant was provided with draft documents on 20 March 2025</p> | <p>On 20 March 2025, the applicant waived the comment period</p> | <p>N/A</p> |

5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Department of Water (DOW), July 2008. Water Quality Protection Note 22 (WQPN22): Irrigation with nutrient rich wastewater. Perth, Western Australia