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	W3079/2025/1
Applicant	Lake Austin Mining Pty Ltd
ACN	607 635 192
EO number	APP-0029002
Premises	White Well Mine Site Mining tenement M 20/54 As defined by the premises maps attached to the issued works approval
Date of report	31/03/2026
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 W3079/2025/1 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 7 May 2025, Lake Austin Mining Pty Ltd (LAM, 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 is to undertake construction works relating to a processing plant (scrubber wash plant and carbon-in-pulp (CIP)) for the treatment of gold ore, tailings storage facility, mine dewatering pumps, pipelines and production bores, and a putrescible landfill at the premises. The premises is approximately 27 km east of Cue, Western Australia.

The premises relates to the categories and assessed production / design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W3079/2025/1. 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 W3079/2025/1.

2.3 Applicant and premises overview

The White Well Mine Site, located near Cue in Western Australia (Figure 1), has a long history of exploration dating back to the early 1900s, with modern programs conducted by Newcrest Mining and Westgold during the 1980s and 1990s, including a small test pit in 1992 (Figure 2).

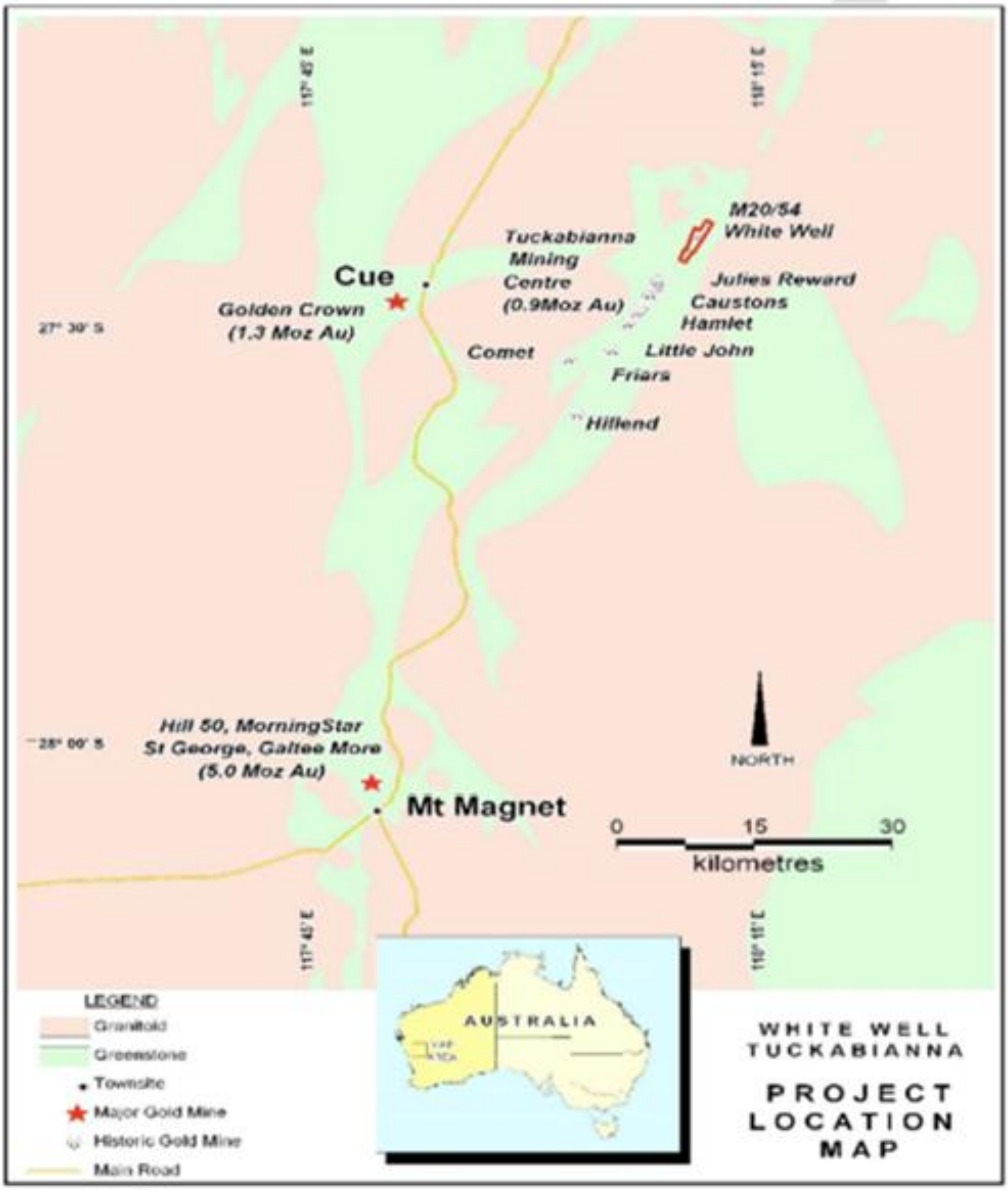


Figure 1: White Well location (M 20/54)

Mutiny Gold undertook drilling in 2008, followed by Cobra Mining in 2012. Lake Austin Mining Pty Ltd (LAM) acquired the project in 2015 and between 2016 and 2019 completed metallurgical test work, diamond drilling, and secured key permits and approvals. LAM purchased a high-capacity scrubbing and screening plant and investigated processing options before approving a Prefeasibility Study (PFS) in 2019 based on on-site processing through a scrubber circuit and semi-modular CIP plant.

Rising gold prices and updated cost inputs prompted LAM to update the PFS in 2024, confirming a mining inventory of 4.76 Mt ore at 0.66 g/t Au, producing approximately 90,977 ounces of gold over a four-year mine life.

The White Well Mine Site was previously a prescribed premises under works approval W5214/2012/1, which expired on 29 August 2025. Multiple amendments to extend the expiry date of the instrument have occurred since it was granted in 2012, but DWER advised the applicant to renew this works approval when it expired rather than seek further amendments.

This advice is recorded in the Decision Report supporting the most recent amendment to the works approval granted on 29 August 2024 and further communicated to the applicant on 18 March 2025.

The applicant has therefore submitted a new works approval application (this assessment) to construct the following infrastructure:

- Processing plant (scrubber wash plant and carbon-in-pulp (CIP) gold treatment plant)
- Waste rock dump (WRD)
- Tailings storage facility (TSF)
- Mine dewatering pumps, pipelines and production bores
- Putrescible landfill site

Note that following a review of previous Amendment Reports, internal DWER records, and satellite imagery, there is no evidence that any infrastructure authorised under W5214/2012/1 has been constructed.

Figure 2: White Well general site layout

2.4 Category 5 Processing plant

The White Well Mine Site processing strategy has been designed to efficiently beneficiate kaolinite-hosted quartz ore and recover gold using a two-stage approach.

The first stage of processing involves a scrubber and screening circuit, which is intended to wash the ore and remove kaolinite clay, thereby liberating the quartz fraction that contains gold.

This circuit comprises a grizzly feed bin, heavy-duty trommel, autogenous scrubber, oversize screen, and associated pumps and mechanical equipment.

During operation, trommel oversize will report to a fine ore stockpile as the quartz fraction, while trommel undersize will be directed to a fines screening circuit to recover the -2 mm +212 μm quartz fraction.

The fines circuit includes two ultra-fine Derrick screens and concentrators for fine gold recovery. This configuration ensures effective separation of clay and maximises the recovery of gold-bearing quartz.

The second stage of processing will occur in a carbon-in-pulp (CIP) plant, which treats the quartz concentrate for gold recovery. The CIP plant design includes a ball mill operating in closed circuit with hydro-cyclones, followed by a trash screen prior to the leach and carbon-in-leach (CIL) circuit.

The CIL circuit comprises one leach tank and six CIL tanks fitted with interstage screens. Loaded carbon will be removed daily and transported off-site for stripping and reactivation before being returned to the plant. The CIP plant is designed to process 30 tph continuously, operating 24 hours per day, seven days per week, with a residence time of approximately 12 hours. Expected gold recovery within the CIP stage is approximately 96%, contributing to an overall recovery of around 90% for the entire process (see Figure 3).

Key design criteria for the processing facilities include a total run of mine (ROM) ore feed of 4.75 million tonnes at an average grade of 0.66 g/t Au, a scrubber plant feed rate of 300 tph, and a concentrate mass yield of 15%, equating to approximately 713,000 tonnes at 4.13 g/t Au.

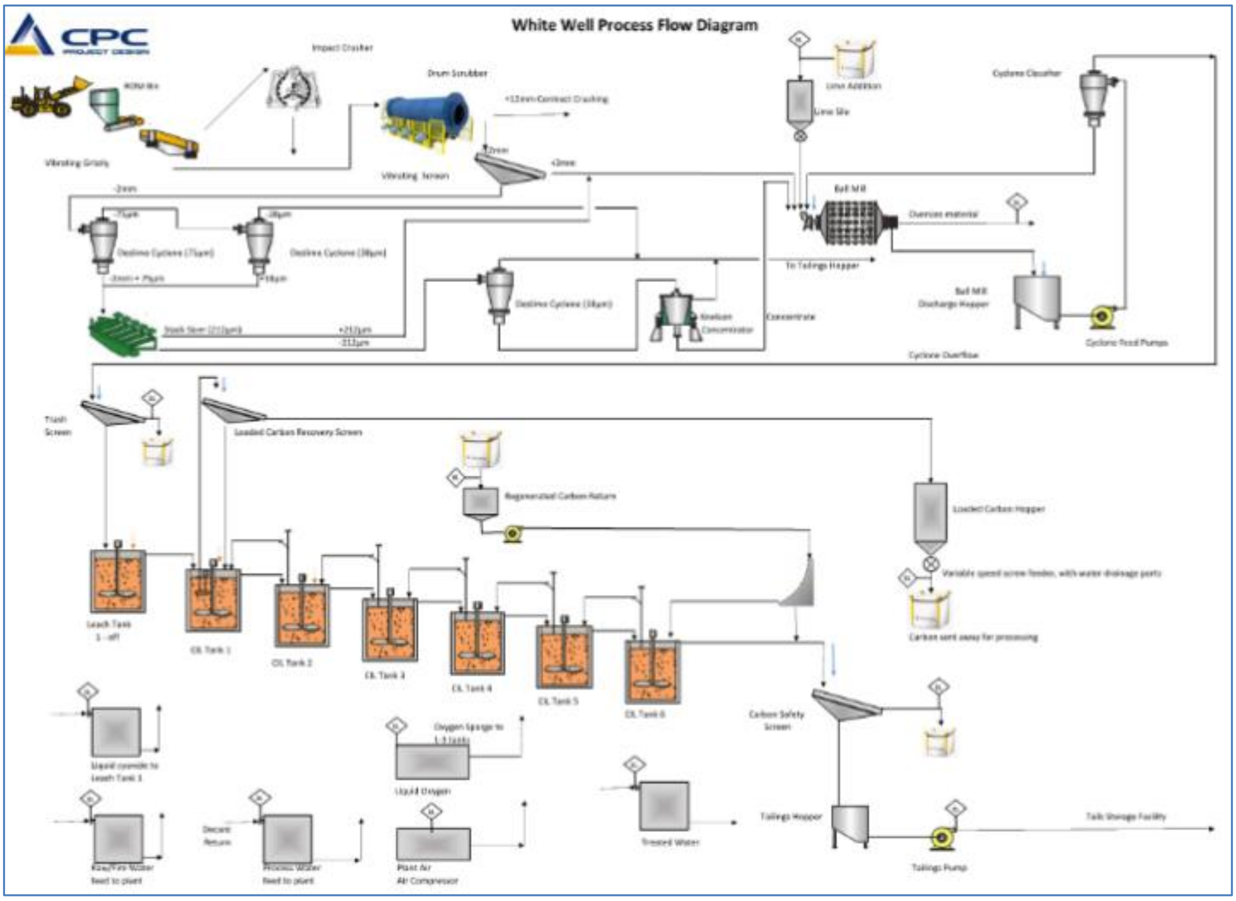


Figure 3: White Well process flow diagram

Run of mine ore will be processed through a wet plant scrubbing and sizing circuit at a nominal rate of 1.8 million tonnes per annum, generating a quartz-gold concentrate approximately 15%

by volume. Gold will be extracted from the concentrates using a conventional grinding and CIP/CIL cyanidation plant at a nominal processing rate of 300,000 tpa. The total water requirement for the project is up to 1 GL per year. Water will be abstracted from the existing pit lake and bores located on mining lease M20/54.

Trommel undersize material (U/S) slurry exiting the scrubbing circuit is pumped to a vibrating screen fitted with 2 mm urethane screen panels. The oversized (O/S) material discharges onto the feed conveyor to the grinding circuit and the U/S slurry from the vibrating screen is pumped to the deslime circuit for removal of the fine kaolin material.

The scrubbing circuit inclusive to the ROM bin has been sourced as secondhand equipment and will be re-conditioned and installed by the applicant.

The deslime circuit consists of two stages of hydrocyclones with the first stage (400 mm diameter) cyclone overflow reporting to the second stage cyclones (250 mm diameter). The second stage deslime cyclone overflow reports to the final tailings pumps for delivery to the TSF.

2.5 Category 5 Tailings storage facility (TSF)

The White Well TSF has been designed by 4D Geotechnics (2012 and 2016) using a centreline and downstream embankment construction method in two alternating cells (TSF 1 and TSF 2). The TSF is to be constructed as a 'paddock' structure using locally available kaolin clay material. The maximum height of the final embankments will be 15 m. The design footprint of the TSF at completion of the project is approximately 11 ha.

The embankments will be constructed from kaolin waste rock with ferricrete armouring on the outer batters for scour protection. The TSF will abut the southeastern flank of the new waste rock dump (Figure 4, and Figure 5) and will be constructed in a staged approach to keep pace with tailing deposition to a final height of 15 metres.

The initial embankment will range in height from 5 m maximum down to ~0.5 m in height at the highest part of the site. Thereafter, the following lifts will all be between 5 – 10 m height.

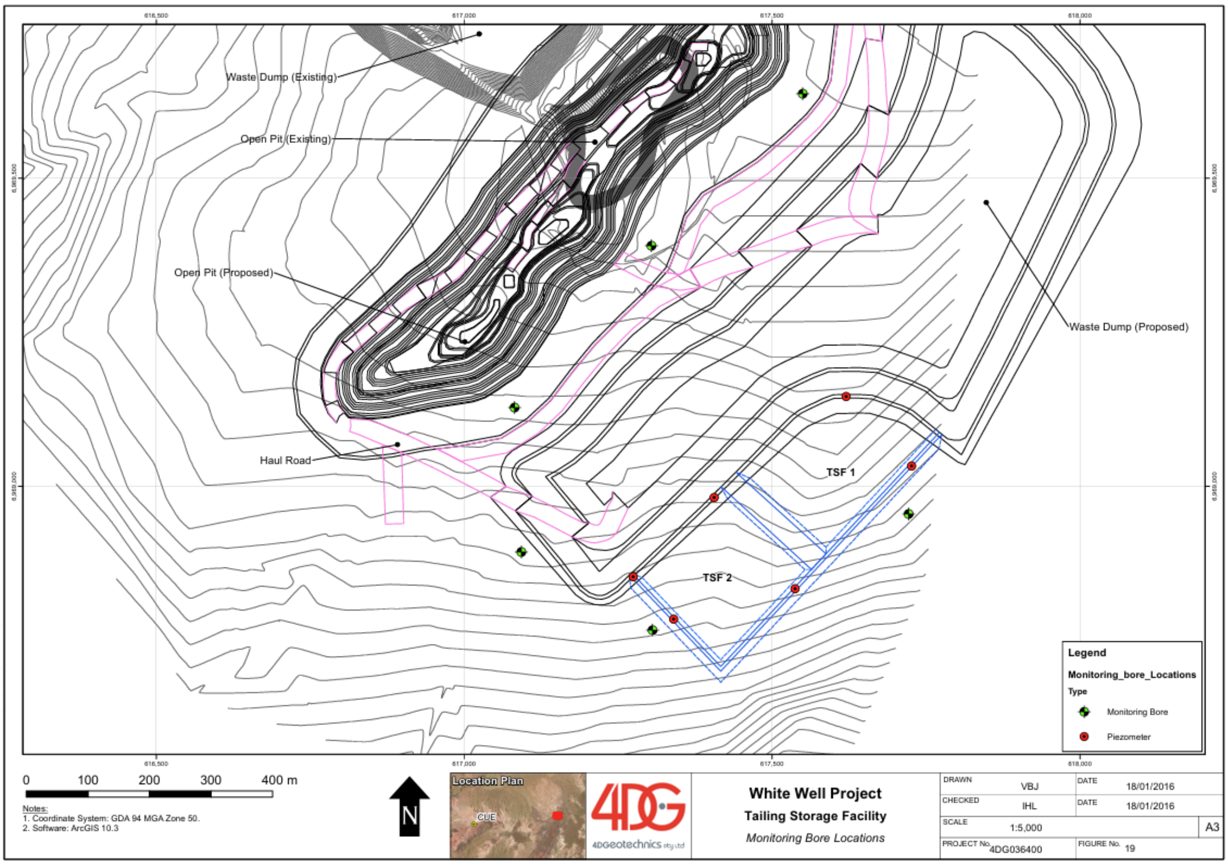


Figure 4: Location of TSF to the southwest of the waste rock dump

The earth fill materials are proposed to be sourced from within the TSF footprint and from future mine waste excavations from the kaolin soils located in either the existing waste dump or mine waste from mining operations. The scour protection source is the laterised zone and ferricrete layer which can be sourced from the cut-off trench excavations, or from an extension of the mine pit.

Where the embankment abuts the waste dump, it will be "keyed" into the waste dump by a minimum 5 metres. Where the embankment fill is placed at the same time as waste dump material, the key will be roller compacted to the same specification as the rest of the embankment for a length of 5 metres into the waste dump footprint. Where the waste dump has been built to a height greater than the embankment fill being placed, a benched slot trench will be dug into the waste dump for the key. Where a trench is dug, each bench should be no greater than 300 mm high to allow for compaction through the edge of the newly placed material.

The floor liner of the TSF will be constructed in lifts, each not to exceed 350 mm loose thickness, and compacted to 92% MMDD at +/- 2% OMC. The floor fill will extend a minimum of 5 m under the waste dump footprint, and as such should be placed prior to constructing the waste dump.

The waste dump will form two walls of the proposed TSF. As the waste dump material is extremely broad compared to the embankment walls, it is not subject to the same requirements for construction, however where the waste dump will form the TSF wall, certain construction modifications are recommended by 4D Geotechnics that the applicant believes will improve erosional characteristics.

Where the waste rock dump forms the TSF wall, the applicant states that material will be dumped longitudinally along the edge of the waste dump, spread, and traffic compacted (by truck and / or dozer) rather than pushed perpendicularly over the edge. The applicant believes this will help produce a dumped wall with lower permeability as well as improving the compaction of the dumped material and hence reducing the erodibility of waste material adjacent to the TSF.

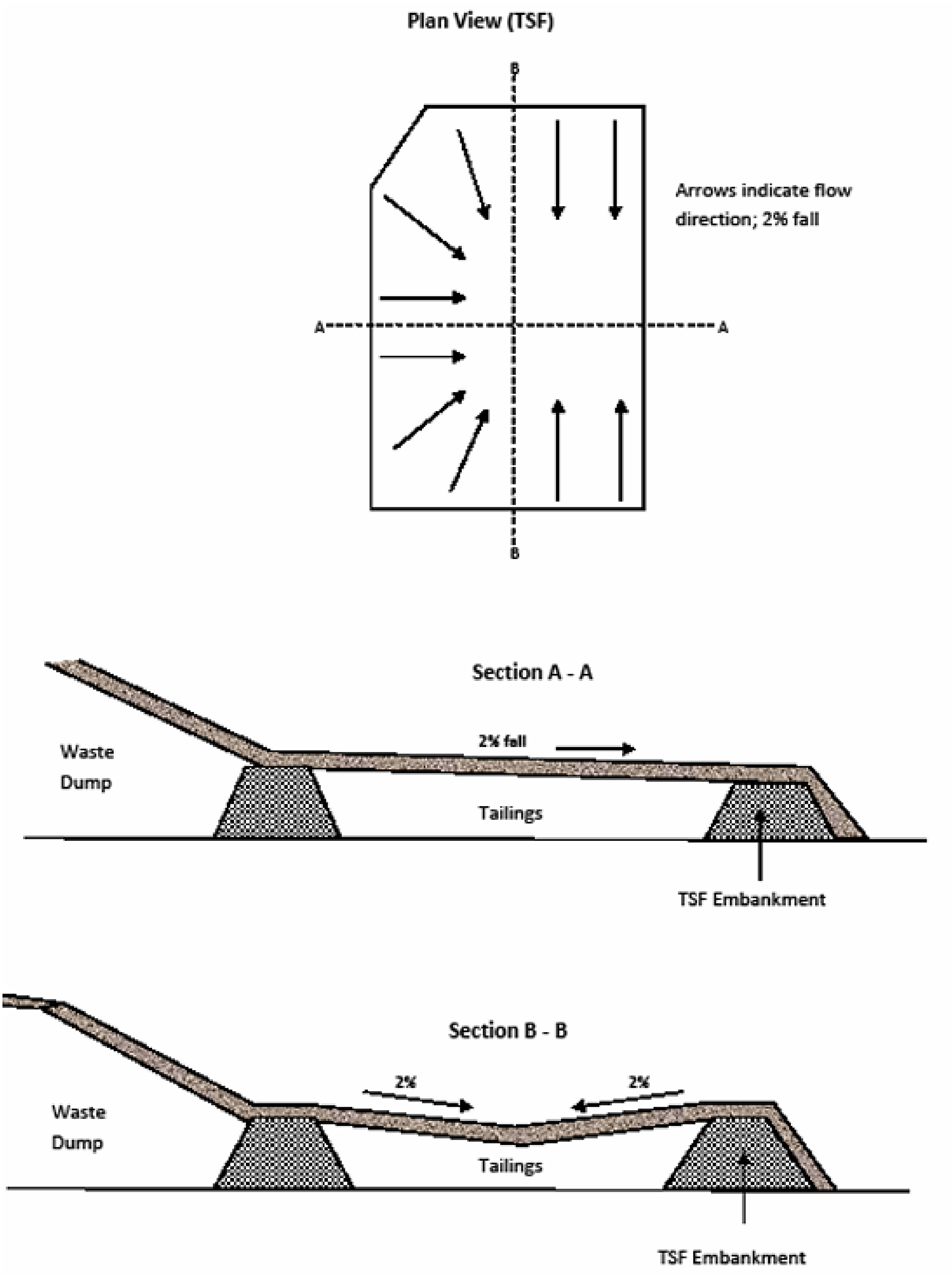


Figure 5: Proposed TSF cross-sectional design

2.5.1 Freeboard assessment

The TSF will operate with a minimum operational freeboard of 500 mm, defined as the vertical distance between the lowest point of the embankment crest and the tailings beach immediately inside the embankment. The TSF has been designed to manage rainfall and runoff from a 100-year ARI event and to prevent overtopping during extreme rainfall.

The embankment staging and beaching strategy ensure that the decant pond remains central and away from embankment walls, reducing overtopping risk. The facility includes decant towers constructed with porous liners and graded rock surrounds, enabling rapid water recovery and maintaining freeboard during high inflow periods.

2.5.2 Tailings deposition

Tailings will be piped to the tailings facility via pipes of poly HDPE class 1C 250 mm from the tails/waste pipe surrounding the top of the tailings dam with the option of diverting tailings to individual areas via “Y” or “T” pieces to ensure correct management of the facility. All pipelines will be contained within earthen bunds.

Tailings will be deposited sub-aerially from perimeter spigots installed every 10 meters with 100 mm PVC pipe depositing tailings at the dam floor to ensure the dam wall is not eroded by tailings discharge. The applicant believes this will also optimize tailings beaching to ensure water does not lay against the dam wall.

Tailings discharge will be rotated in sections within each cell to optimize consolidation. Discharge will be rotated in 30 cm layers beginning with the lowest section of the dam continually and moving the flows around the dam to ensure beaching and settling occurs to maximize the recovery of tailings decant water.

2.5.3 Decant water and pond control

Decant water will be returned to the process water pond via a bunded HDPE pipeline, supporting the closed water circuit and reducing pond size.

The applicant states that the combination of embankment design, beaching strategy, and decant recovery systems provides a low risk of overtopping when the TSF is operated as proposed.

The applicant’s proposed process of tailings deposition is aimed at ensuring the pond is positioned around the decant and maintained at the smallest practical size. Minimizing pond size will allow a higher density of the tailings to be achieved during consolidation, thus maximizing the storage capacity of the tailings. Minimizing pond size will also decrease water loss via evaporation and seepage, which improves water efficiency of the operation, and minimizes the risk of groundwater contamination. The size of the pond will also be influenced by evaporation, the percentage of solids in the tailings, and rainfall.

The applicant states that the pond size will be monitored at least once per shift, and inspection will observe the shape and size of the decant water pond. The hydrology of the facility will be monitored via embankment piezometers and perimeter tailings bores (Figure 8).

The decant tower will be constructed using open/porous concrete soak well liners surrounded by competent rock in the range of 20 – 80 mm to allow for maximum water recovery to occur (Figure 6). Decant water will be returned to a process pond located at the plant via a 200 mm HDPE pipe contained within an earth bund.

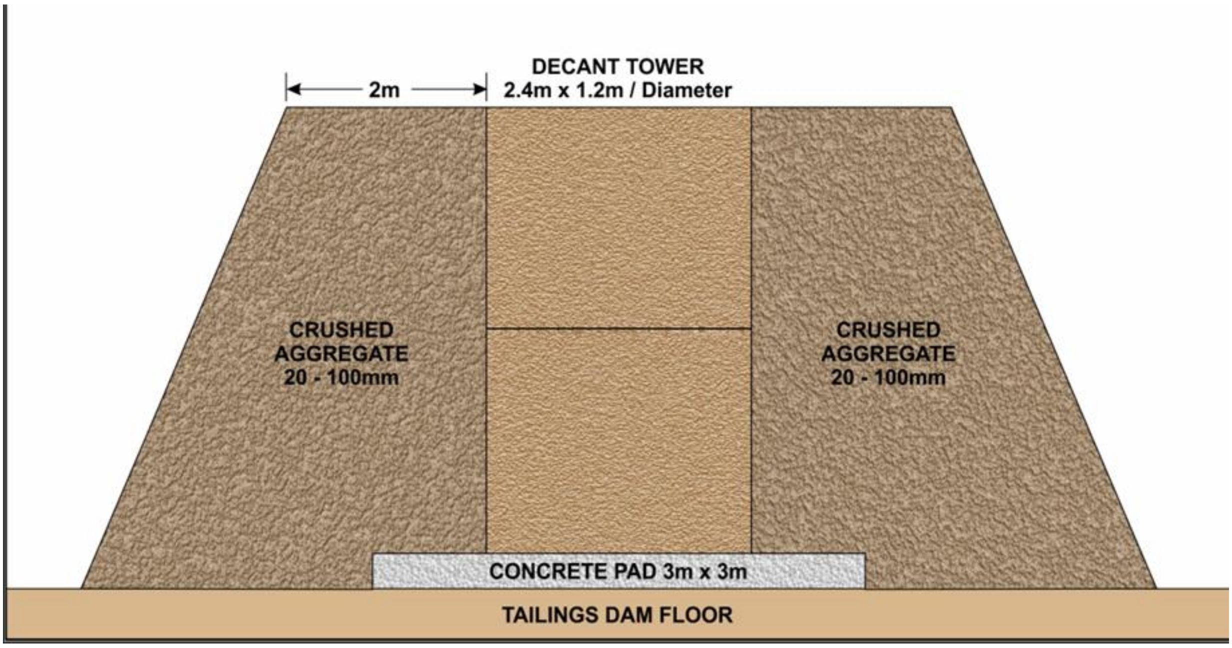


Figure 6: White Well TSF decant tower design

The TSF will have an outer toe drain surrounding the facility, with sumps at low points. This drain will collect rainfall runoff from the tailings embankments. Sumps will be emptied by mobile pumping system and water returned to the tailings area.

2.5.4 Pipelines

An access route alongside a bunded pipeline corridor from the processing plant to the tailings facility will be established along the toe of the ROM pad to accommodate the tailings delivery and return water pipelines to the tailings (Figure 2).

The pipelines will have scour pits and sumps periodically located along the pipeline route to contain any spillage from leaks or pipe breakages. Tailings will be piped to the tailings facility via pipes of poly HDPE class 1C 250 mm from the tailings/waste pipe surrounding the top of the tailings dam with the option of diverting tailings to individual cells and areas within cells via “Y” or “T” pieces to ensure correct management of the facility.

If required, the applicant will ensure that pipelines have vents at locations as designed by the pipeline engineer and the vents will require checking periodically to confirm that their function is adequate to prevent suction to avoid collapse of the pipelines.

2.5.5 Cut-off trenches

The applicant believes that to prevent seepage beneath the TSF embankment, a cut off trench is required. The cut off trench will be excavated to depth of not less than 0.5 metres into the kaolin horizon.

The cut off trench will have a minimum basal width of 3 m so that compaction of the backfill can be easily completed using “padfoot” compactors which are widely used in the construction industry.

Cut off trench cut batters will be constructed within the laterised zone and kaolin at a maximum slope of 1V:1H up to 6 m high to ensure the stability of the excavation during construction.

The applicant states that if signs of instability such as tension cracks or ground movement are detected, a suitably qualified and experienced engineer will inspect the excavations to ensure the works are conducted in a safe manner. The cut off trench will be backfilled with kaolin fill.

2.5.6 Production and monitoring bores

Production bores

The total water requirement for the operation for ore processing and other mining and dust suppression activities is up to 1 GL per year. A production borefield was struck in 2020 (AEMCO) and from 11 pilot holes, four were identified and recommended for production bore development (bores WW1/19, WW4/19, WW7/19, and WW8/19). The estimated yield from the four bores was 11.4 L/s and this was deemed inadequate for ongoing mining activities.

An additional 13 production bores were constructed and after successfully intersecting established banded iron formations nominally 80 to 100 metres below ground level (mbgl) the total yield from the borefield yields is recorded as between 100 and 1,000 m^3/day (1 ML) (Figure 7).

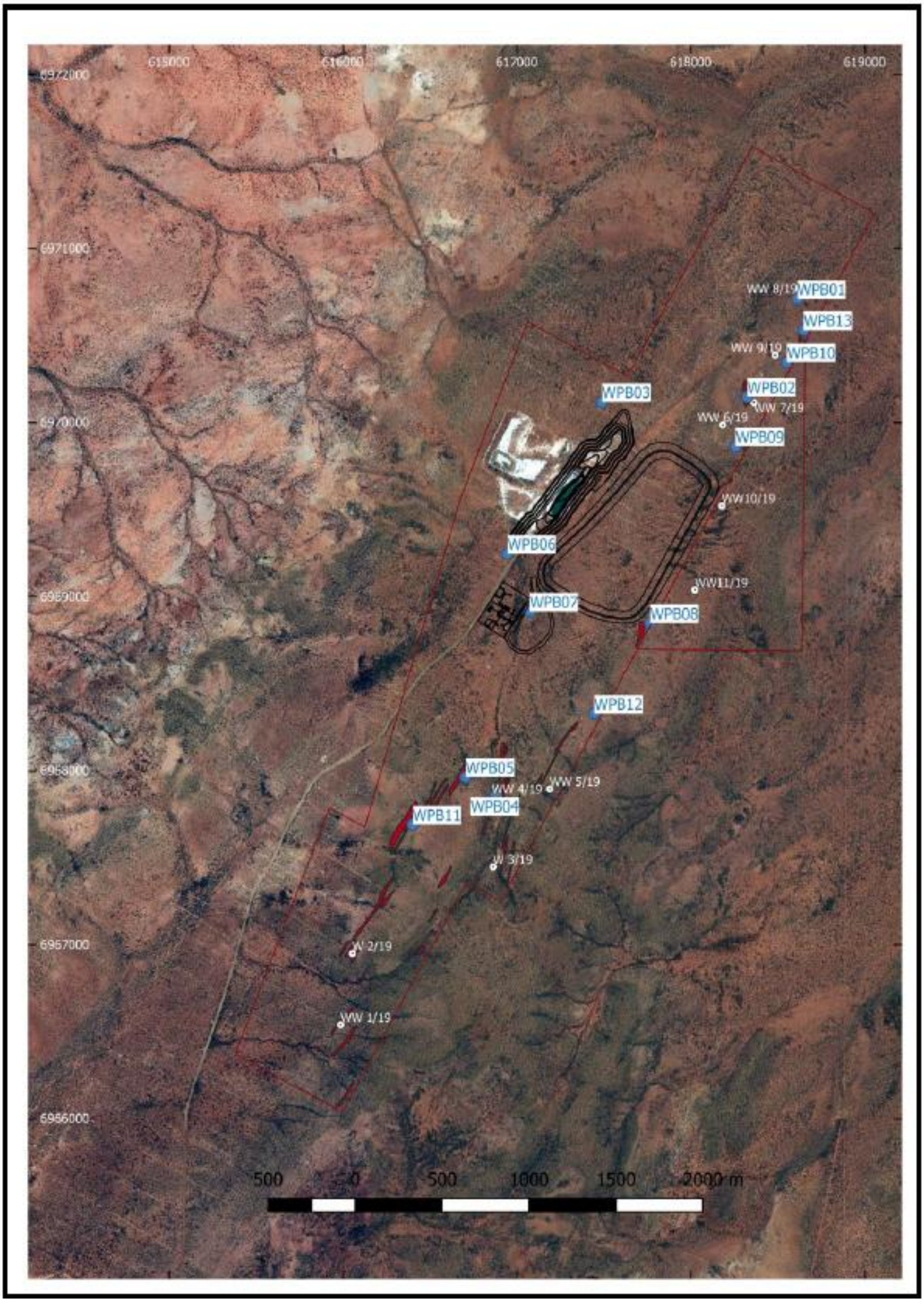


Figure 7: Production borefield

Monitoring bores

While some monitoring bores have been previously constructed to provide early ambient groundwater conditions, a comprehensive groundwater and embankment monitoring network has been designed by a third-party consultant to provide early detection of seepage, verify TSF performance, and track groundwater responses to tailings deposition (LAM 2016 and 4DGeotechnics / MSP 2016).

The applicant specifies that six groundwater monitoring bores (WMB1–WMB6) and six embankment piezometers will be installed prior to commissioning of the tailing storage facility (refer Figure 8).

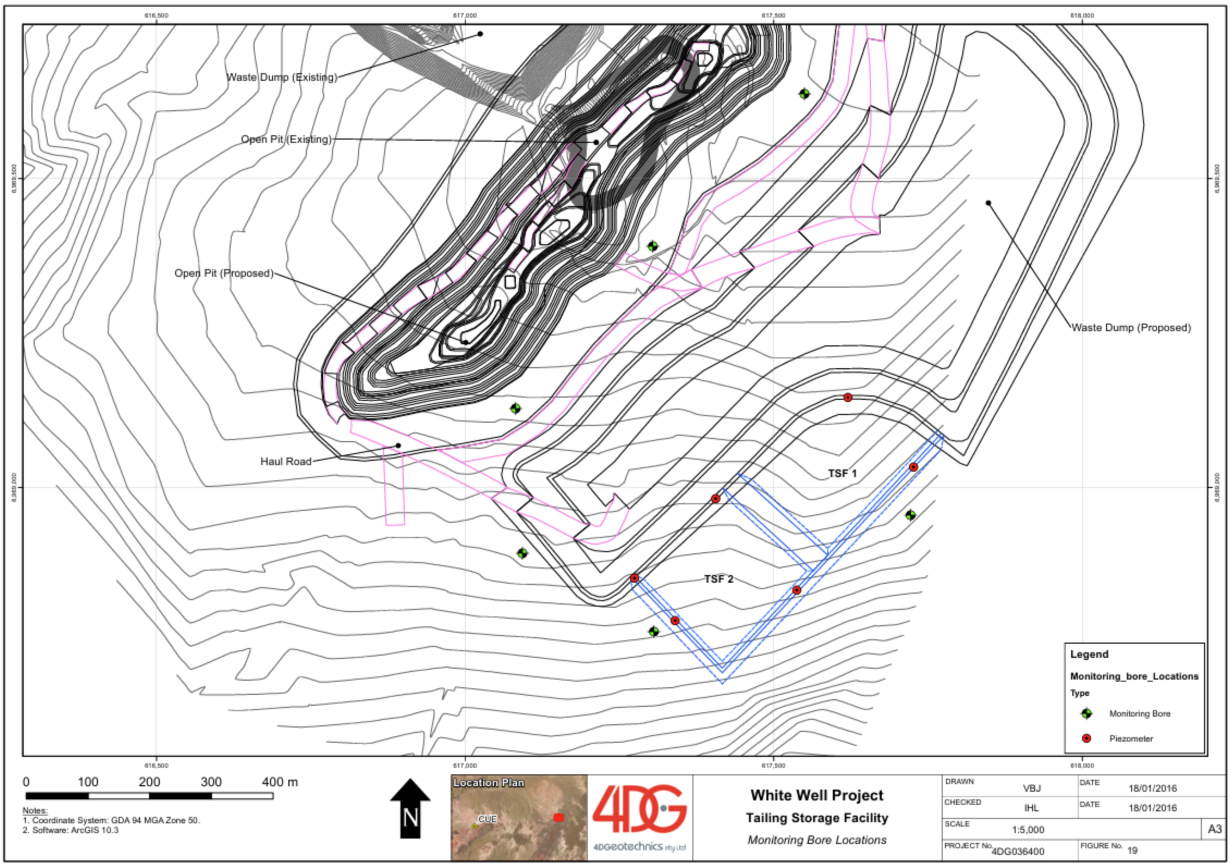


Figure 8: Monitoring bore locations

These instruments are positioned to monitor groundwater inflow directions, seepage migration, and potential drawdown effects from the open pit.

The associated monitoring program includes:

- Weekly measurement of standing water levels in all embankment piezometers.
- Fortnightly standing water level monitoring in groundwater bores WMB1–WMB5.
- Monthly field analysis of electrical conductivity (EC), pH and weak acid dissociable cyanide (WAD CN).
- Quarterly laboratory analysis (NATA accredited) of EC, pH, and WAD CN; and
- Annual comprehensive water quality testing, including major ions and a full metals suite, for decant water and bore samples.

The 4DGeotechnics (2016) report confirms that the monitoring system is required to be established before tailings deposition, noting that piezometers within the embankment walls allow for "early detection of any embankment seepage" and that monitoring bores are to be installed 50–100 m from the embankment to ensure interception of seepage plumes.

2.5.7 Tailings physical and chemical characteristics

The applicant has provided detailed geotechnical test data for the tailings-forming material, including particle size distribution, Atterberg limits, permeability, dry density, and shear strength, (4DGeotechnics / MSP Engineering, 2016).

Tailings from the stage 1 wet plant process will comprise a slurry of oxide kaolin waste and process water. Slurry densities are expected to be approximately 45 – 50%. Residual process chemicals contained in the tailings slurry from the stage 2 CIL/CIP plant are expected as follows:

- TDS – 1,800 µg/cm.
- pH – 10.
- WAD CN – <50 mg/L
- Total CN – 200 mg/L.

2.6 Category 6 Dewatering infrastructure

The White Well Mine Site includes a historical open pit approximately 45 metres deep, which currently contains water at its base (Figure 9). Dewatering of this pit is required to enable safe mining operations and to provide supplementary water for processing.

Figure 9: White Well current pit lake

The pit is expected to require removal of approximately 158,000 m³ of water during the first year of operation, at a nominal pumping rate of 5 L/s. Lake Austin intends to reuse the water extracted from pit dewatering as part of its process water and dust suppression supply for the operation.

The applicant supplied a numerical hydrogeological model and project documentation to confirm that water recovered from the pit will supplement the borefield abstraction to meet the plant's annual demand of up to 1 GL per year. This water will be pumped to the raw water storage ponds and integrated into the processing circuit for the scrubber wash plant and CIP facility.

The process water pond is 76 x 63 m (long x wide) and 5 m deep. With 500 mm freeboard the pond volume has been calculated at 16,758 m^3. Steady state process water demand of the processing plant is proposed to be 627.3 m^3/hour. At 5 L/s, maximum input into the pond from dewatering activity will be 3.6 m^3/hour.

The reuse strategy reduces reliance on external water sources and aligns with the applicant's commitment to minimise environmental impacts by avoiding unnecessary discharge or disposal of mine water.

No discharge to the environment is proposed; instead, the water will be managed within the site's closed water circuit, which includes:

- Raw water and process water ponds for storage and distribution.
- Return water systems from the tailings storage facility (TSF) to maximise recycling.
- Integration with borefield supply to maintain consistent water availability for the scrubber and CIP circuits.

2.7 Category 89 Landfill

The proposal includes the establishment of a Class II purtescible landfill within the footprint of the new waste rock dump (WRD) at the White Well Mine Site. The WRD disturbance area is approximately 52.99 ha, with a maximum height of 31 m; the landfill will occupy a small portion of this footprint.

The landfill is intended for disposal of putrescible and/or inert wastes generated during construction and operation of the premises. The landfill will be comprised of 12 trenches. Each trench will be constructed only in the location identified on the proposed landfill layout map within the Waste Rock Dump (Figure 10). Each trench will be 30 m length by 10 m wide and 2 m depth and have contoured banks and bunds to direct uncontaminated stormwater away from the trench.

The landfill will be unlined. It will be constructed beneath the later extent of the WRD footprint, ensuring containment within the waste rock landform and progressive coverage during WRD development.

Waste segregation and recycling will be implemented to minimise landfill volumes. Hydrocarbon-contaminated soils will be treated in a bioremediation facility located within the WRD footprint, not in the landfill.

The landfill will be progressively covered with waste rock and capped with ferricrete during closure to ensure physical stability, prevent erosion, and restrict fauna access.

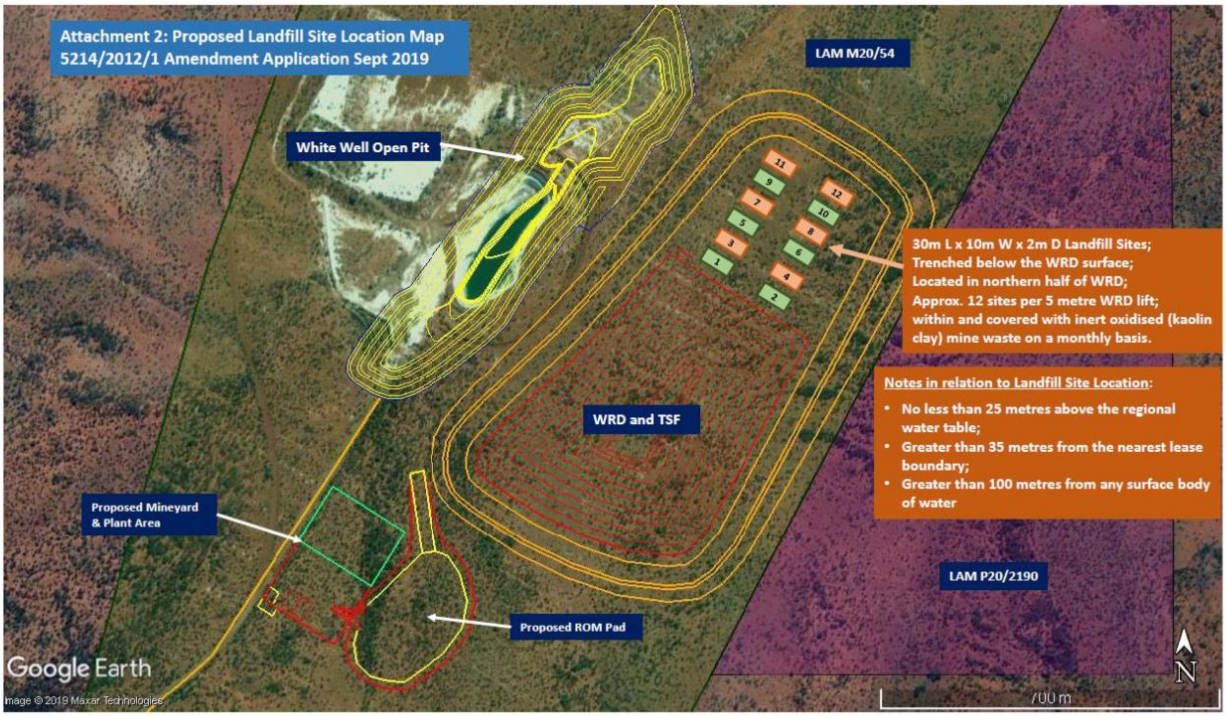


Figure 10: Proposed landfill layout

2.7.1 Bioremediation facility

The applicant proposes to establish a bioremediation facility within the footprint of the new waste rock dump (WRD) at the White Well Mine Site. The facility is designed to treat hydrocarbon-contaminated soils generated during construction and operation (e.g., from fuel handling, maintenance activities, and minor spills) rather than disposing of these materials in the inert landfill. This approach aligns with best practice for on-site remediation and minimises environmental risk.

The bioremediation pad will be constructed on a foundation of kaolin clay waste material, providing a low-permeability base to reduce leachate risk. The facility will comprise two cells, each approximately 5 m wide and 7 m long, surrounded by earthen bunds for containment and controlled access (Figure 11). Bunds will prevent runoff and ensure that contaminated material remains within the designated treatment area.

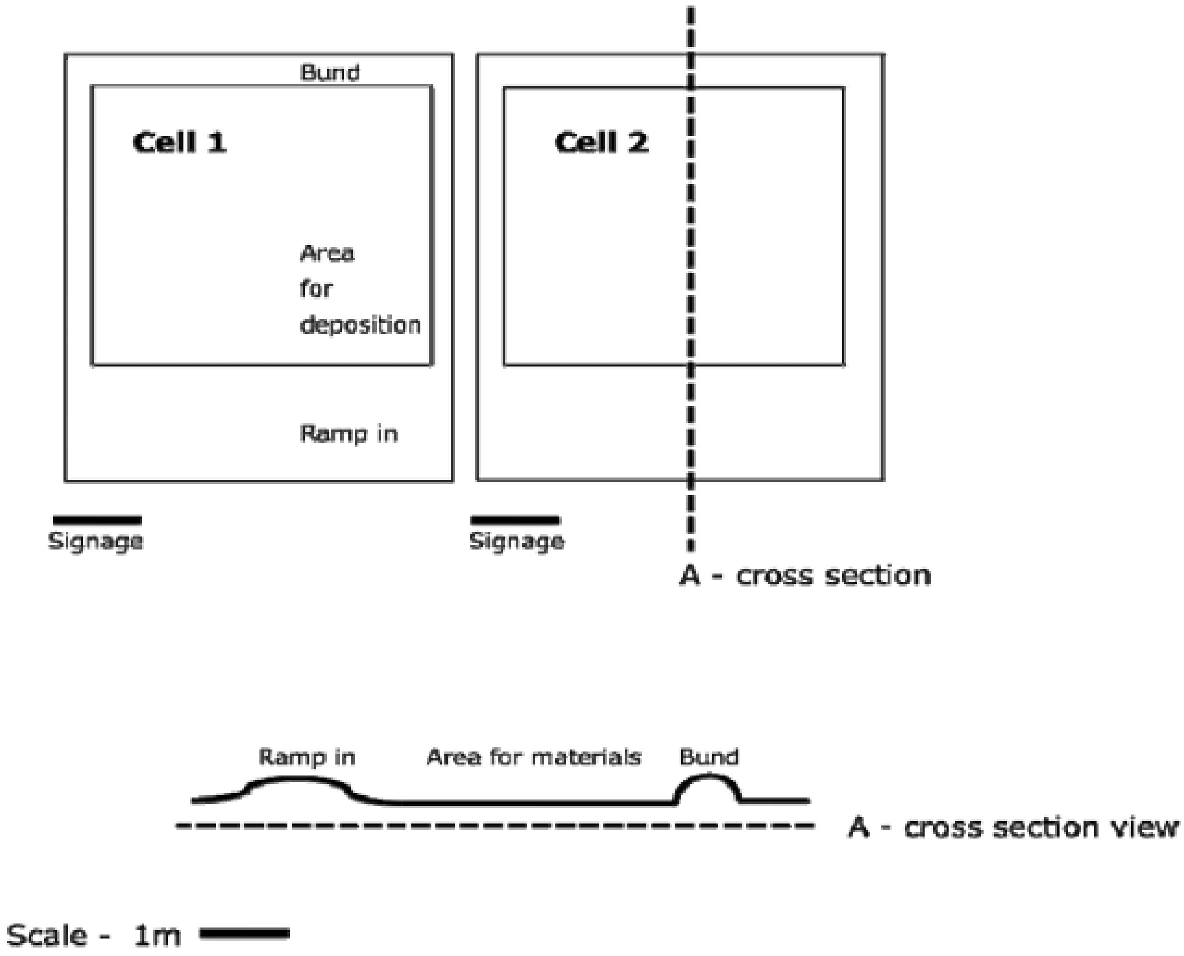


Figure 11: White Well bioremediation area design

Bioremediation cells will operate on a six-month rotation, alternating mid-winter and mid-summer so that each cell rests during optimal bioremediation periods (autumn and spring). Hydrocarbon-contaminated soils will be mixed with bioremediation granules to accelerate microbial breakdown of hydrocarbons. Access will be via a ramp over the bund for vehicles depositing material. Signage will be installed at the facility detailing operating procedures and safety requirements.

The kaolin clay base provides containment and minimises seepage to soil and groundwater. No discharge to the environment is proposed; treated soils will remain onsite and may be reused in rehabilitation if suitable. The facility will be monitored for effectiveness and compliance with internal environmental procedures.

At mine closure, any residual contaminated material will be treated or removed for offsite disposal if necessary. The bioremediation area will be rehabilitated in accordance with Department of Mines, Petroleum and Exploration (DMPE) approved Mine Closure Plan, including contouring, topsoil application, ripping, and seeding.

3. Surface water hydrological assessment

3.1.1 Surface water hydrology scope

The White Well project area lies within an arid region characterised by ephemeral drainage systems and sheet flow regimes rather than well-defined creek channels. Surface water flows generally occur following significant rainfall events and are highly variable, both in frequency and volume.

A site-specific surface water study was completed (AQ2, 2016), defining catchments, rainfall inputs, flood estimation methods and engineering controls. Flood peaks were derived using Runoff Analysis and Flow Tracking System (RAFTS) and Australian Rainfall and Runoff Regional Flood Frequency Estimation (ARR RFFE) for the 6.4 km² upstream catchment; both methods converge on Q_{100} = 8 m³/s (Table 1).

Table 1: Estimated peak flow (6.4 km² catchment)

Average recurrence interval (years)	Flow (m³ / s)
2	0.2
5	0.7
10	1.5
20	3
50	5
100	**8**
1,000	17
10,000	28
100,000	41

Design rainfall intensities/volumes for critical durations (including 72-hr events) were taken from ARR/IFD, with a 100-year 72-hour depth of 190 mm adopted for pit storage considerations

3.1.2 Diversion design (east, west, south)

To protect the pit and infrastructure, three operational diversions are proposed and sized to their local 100-year ARI flows:

- West diversion: catchment 3.6 km², Q_{100} = 4.5 m³/s; grade 0.5%, base width 4 m, flow depth ~0.75 m, velocity ~1.2 m/s.
- East diversion: catchment 1.8 km², Q_{100} = 2.3 m³/s; grade 0.5%, base width 2 m, flow depth ~0.6 m, velocity ~1.0 m/s.
- South diversion: catchment 1.3 km², Q_{100} = 1.6 m³/s; grade 0.5%, base width 3 m, flow depth ~0.5 m, velocity ~0.8 m/s.

The clean/dirty water layout (diversions, bunds, sediment basin, drainage pathways) is shown in Figure 12, demonstrating segregation of undisturbed (clean) flows from disturbed areas.

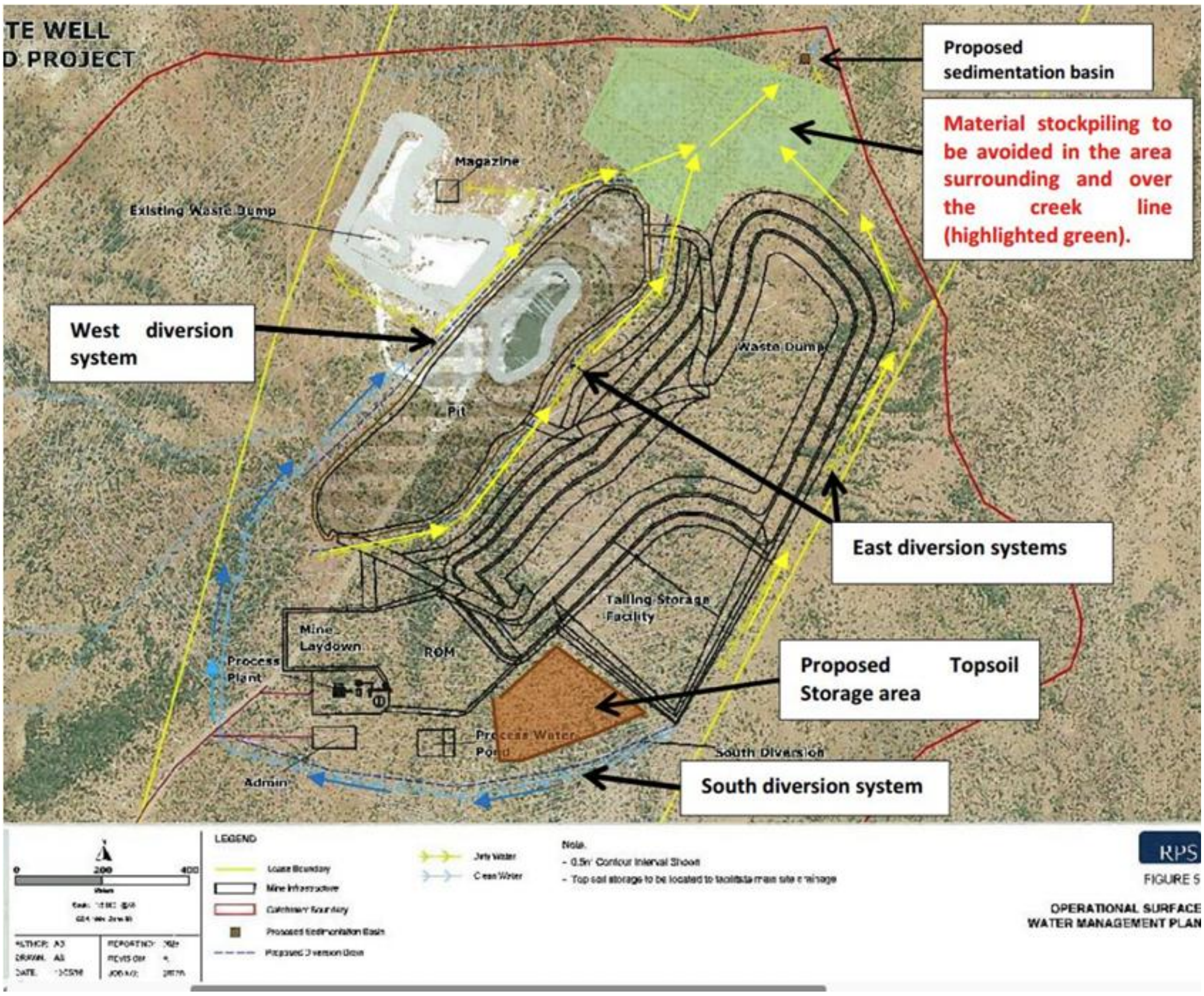


Figure 12: Proposed stormwater management infrastructure

Material selection and compaction requirements are specified to achieve higher permissible velocities and the applicant states that rock armouring is available where operational experience indicates exceedance or for permanent closure works.

Sediment control targets a 5-year ARI inflow with 50 µm particle removal efficiency. Basin sizing is based on settling-velocity criteria (e.g., the northern basin requires ~445 m² surface area for $Q_5 = 0.7\ m^3/s$; minimum water depth 1.2 m). Outlet/spillway configurations are provided for wet/dry basin options and emergency capacity.

4. Groundwater hydrogeological assessment

The White Well project is situated within the East Murchison Groundwater Area, specifically the Meekatharra Groundwater Sub-area. Groundwater in this region occurs predominantly within fractured rock aquifers associated with banded iron formations (BIF), saprolitic clay zones, and structural features such as faults and shear zones. Recharge is limited and highly variable, occurring primarily during episodic rainfall events, with groundwater generally flowing down hydraulic gradients toward discharge areas such as Lake Austin to the south.

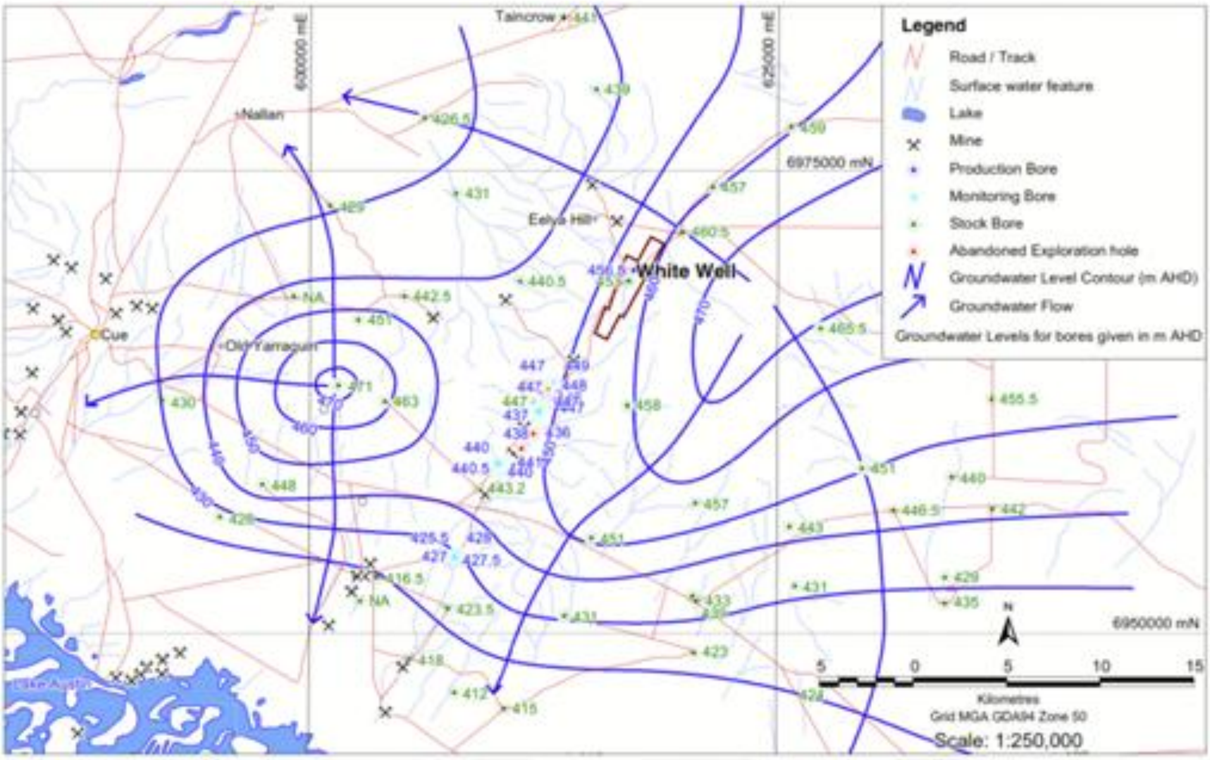


Figure 13: Regional groundwater contour lines

Historical hydrogeological investigations and recent modelling undertaken by Lake Austin Mining indicate that groundwater beneath the proposed tailings storage facility (TSF) lies at approximately 25 to 30 metres below ground level. Water is also present in the base of the existing open pit, which has partially filled since previous mining ceased.

The quality of groundwater at the mine site is reported to be brackish, with salinity levels typically less than 5,000 mg/L total dissolved solids (TDS), although regional groundwater salinity varies widely from fresh to hypersaline, ranging between 650 mg/L and 130,000 mg/L TDS.

LAM commissioned a numerical hydrogeological model using MODFLOW-based software to evaluate the feasibility of pit dewatering and its potential impacts on surrounding groundwater systems. The model incorporated key geological units and structural features to simulate hydraulic connectivity and recharge pathways.

Boundary conditions were established to reflect steady-state groundwater levels prior to abstraction, and simulations were run under multiple scenarios to account for variations in hydraulic conductivity.

Importantly, the modelling suggests that groundwater drawdown will not extend to neighbouring water users or groundwater-dependent ecosystems, and no permanent impacts are anticipated based on demonstrated recovery of water levels following historic pumping in the Tuckabianna area.

The applicant states that groundwater monitoring will be undertaken throughout the life of the project, including regular measurements of water levels and quality in monitoring bores and piezometers installed around the TSF and pit. These measures will provide ongoing assurance that groundwater conditions remain within acceptable limits and that the facility operates in accordance with best practice environmental management.

4.1 Seepage and groundwater mounding

The current planned TSF is located on deep ferricrete materials that are considered a significant seepage risk with associated elevated groundwater and the development of seepage plumes.

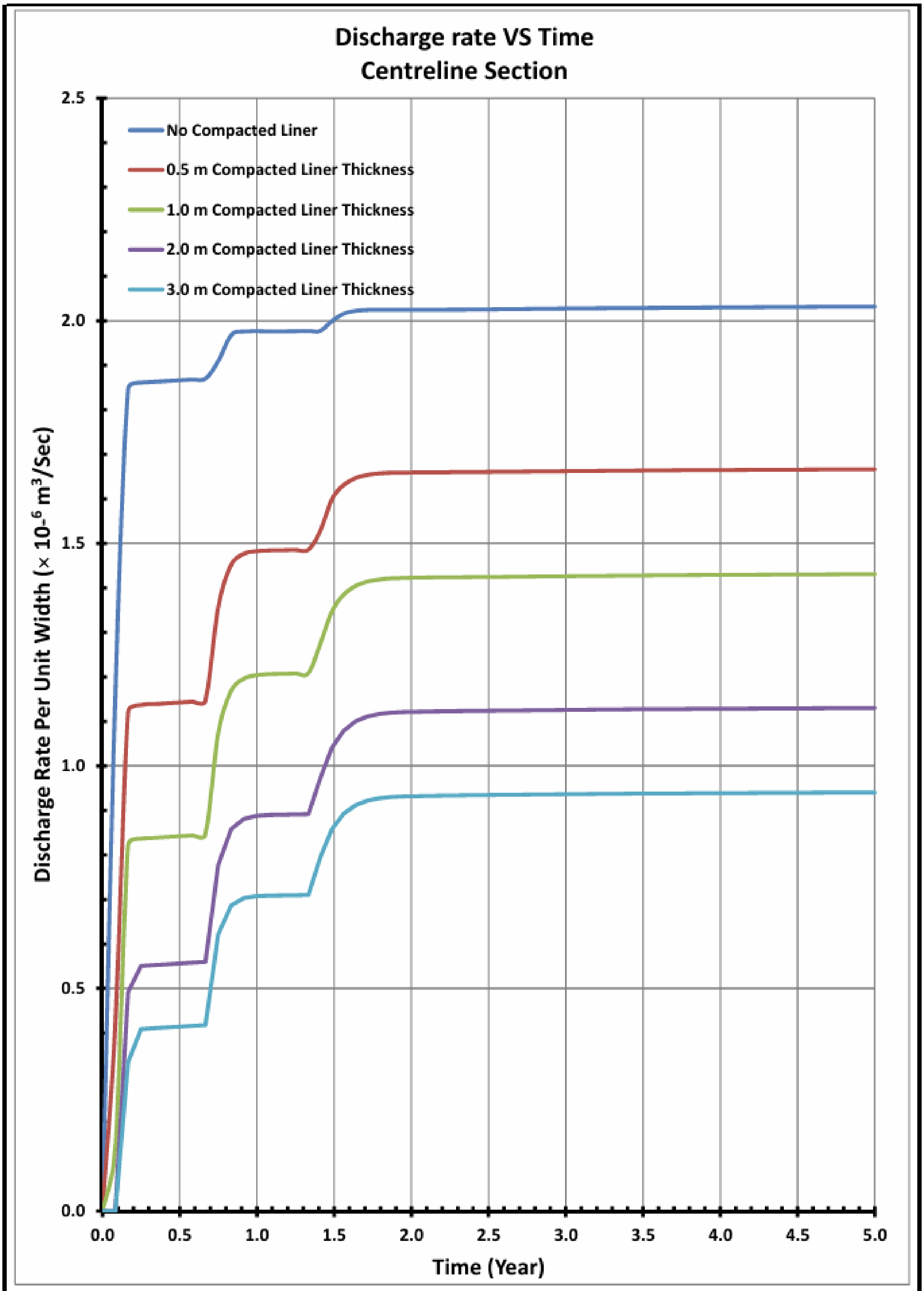
The thickness of the ferricrete is considered too great to cut-off likely seepage solely with a trench, so the applicant propose to use a horizontal blanket/liner as an alternative.

To assess the impact of the construction of a lower permeability liner material blanketing the floor of the TSF, a series of seepage analysis was carried out using commercially available finite element software package Seep/W (Version 7.23) prepared by GEO-SLOPE.

The seepage analyses have been completed for two typical sections representing the centreline and downstream construction profiles for various thicknesses of lower permeable material of 0.0 m, 0.5 m, 1.0 m, 2.0 m and 3.0 m.

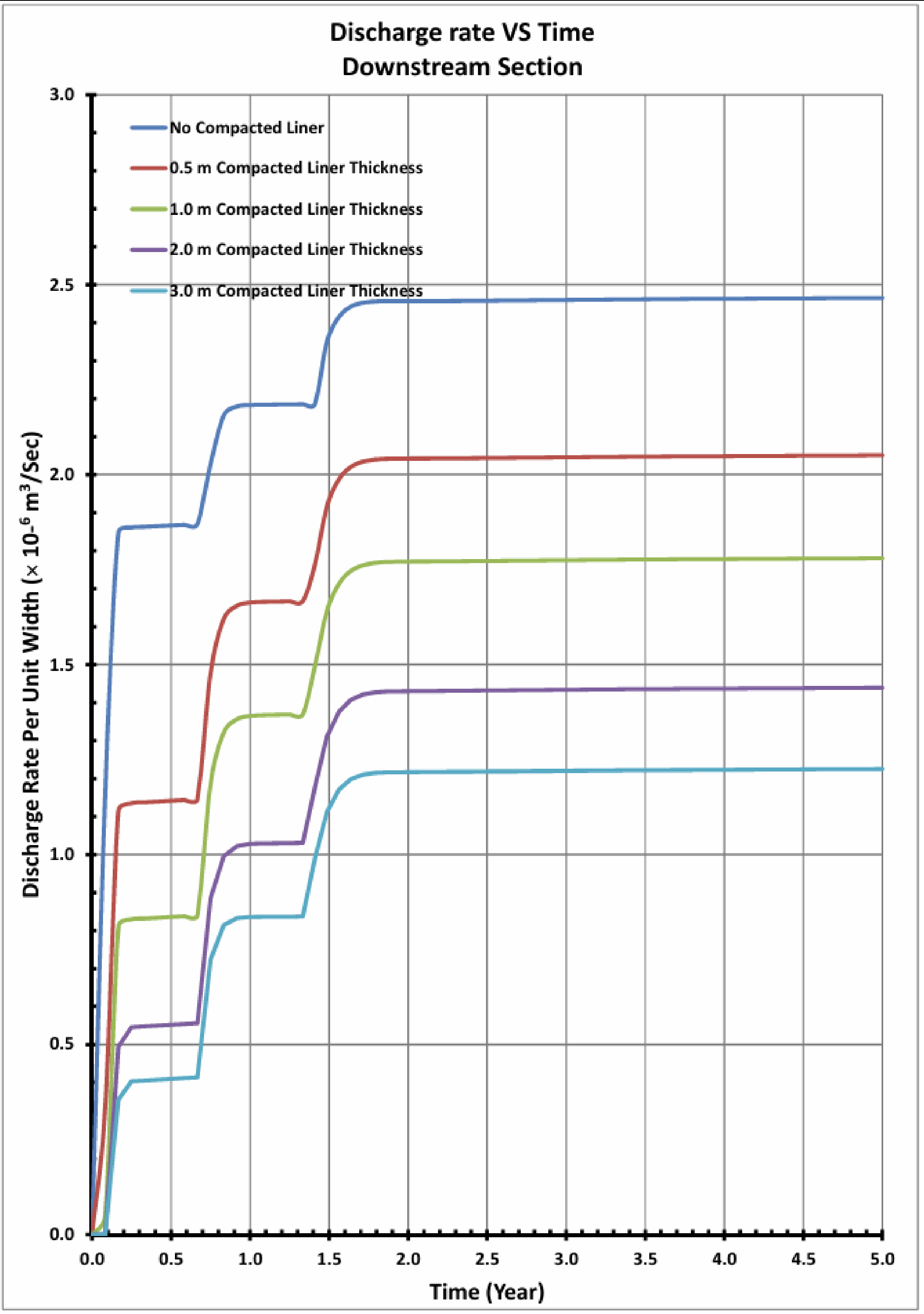
The analyses are 2-D assessments that represent seepage conditions likely to develop and show both the modelled geometry and the calculated flow conditions at the end of the fifth year when the site is considered to have reached a steady state condition.

On the basis of the results obtained from the analyses, the discharge rate versus time (covering a 5 year time period) per unit width for both centreline and downstream sections are presented on Figure 14 and Figure 15.



Title:	Discharge rate VS Time Centreline Section	**Figure No:**	12
		Prepared by:	PXS
Project:	WHITE WELL PROJECT- TAILINGS STORAGE FACILITY	**Checked by:**	
Client:	MSP Engineering Pty Ltd	**Date:**	15/01/2016

Figure 14: Discharge rate vs. time centreline section



4DG	Title:	Discharge rate VS Time Downstream Section	Figure No:	13
			Prepared by:	PXS
	Project:	WHITE WELL PROJECT- TAILINGS STORAGE FACILITY	Checked by:	
	Client:	MSP Engineering Pty Ltd	Date:	15/01/2016

Figure 15: Discharge rate vs. time downstream section

Figure 14 and Figure 15 illustrate the progressive increase in seepage to be expected as the stored head increases, but as the modelling incrementally adds a completed 5 m depth of wall and saturated tailings instantaneously, the discharge curves show a sudden step up in discharge with each lift.

These would be slow increases as the tailings depth comes up. For each lift, the discharge is shown to tend to steady state discharge. According to the above results the following conclusions are made:

- The discharge rate per unit for the centreline section with no compacted liner constructed on the floor is shown to be around 2.3×10^{-6} m/sec at the time of completion of the tailing storage filling. This value is shown to decrease incrementally by 18%, 30%, 45% and 55% for 0.5 m, 1.0 m, 2.0 m, and 3.0 m thick compacted liner constructed on the floor.
- The discharge rate per unit for the downstream section with no compacted liner constructed on the floor is shown to be around 2.46×10^{-6} m/sec at the time of completion of the tailing storage filling. This value is shown to decrease incrementally by 17%, 28%, 42% and 50% for 0.5 m, 1.0 m, 2.0 m, and 3.0 m thick compacted liner constructed on the floor.
- The total discharge per unit width for the centreline section with no compacted liner constructed is shown to be around 330 m^3 within five years. This value is shown to decrease by 22%, 35%, 50% and 60% for 0.5 m, 1.0 m, 2.0 m, and 3.0 m thick compacted liner constructed on the floor; and
- The total discharge per unit width for the downstream section with no compacted liner constructed is shown to be around 370 m^3 within five years. This value is shown to decrease by 20%, 33%, 47% and 55% for 0.5 m, 1.0 m, 2.0 m, and 3.0 m thick compacted liner constructed on the floor.

Based on the analyses, the applicant will incorporate a 2.0 m thick compacted liner in the design of the TSF to control seepage through the laterite foundations underlying the TSF.

The applicant does believe that the supporting analysis represents a worst-case scenario for seepage where the tailings level remains at full embankment height for the life of the structure. This worst-case approach was used by the applicant to simplify the model and allow comparison of different floor thicknesses for the compacted liner. The applicant believes that actual seepages from the TSF will be smaller than those calculated.

Sufficient suitable materials for TSF construction are expected to be available from the open pit waste, including lateritic materials for erosion protection of the final embankment, which should be stockpiled such that they are available for this use following completion of the final lift of the TSF.

5. Mining Proposal and Department of Mines, Petroleum and Exploration (DMPE)

The works approval application was referred to the Department of Mines, Petroleum and Exploration (DMPE) which confirmed that the project is approved under Mining Proposal (MP) ID 58394 and Mine Closure Plan ID 76790.

DMPE noted that the approvals are from 2016, and the applicant is still able to operate under this MP, but that it would not be expected that historic plans would align with current DMPE guidelines.

The applicant is advised to ensure compliance to all aspects of the *Mining Act 1978* (Mining Act) and to notify DMPE if any significant diversions to Mining Proposal ID 58394 and approved Mine Closure Plan ID 76790 are proposed.

6. 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.

6.1 Source-pathways and receptors

6.1.1 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 and operations (roads, ROM, WRD, TSF embankments)	Air / windborne pathway	• Water carts for road / construction surface wetting • Speed limits • TSF dust program with triggers and contingency (suppress/cease) • Progressive rehabilitation
Contaminated or sediment-laden stormwater	Disturbed areas (plant, roads, WRD/TSF surfaces)	Overland flow to environment	• Clean/dirty water segregation via east/west/south diversions and bunds • Sedimentation basin(s) sized for 5-year ARI and 50 µm target • Inspection and maintenance
Operation			
Tailings or decant water with elevated levels of silt or clay, cyanide, arsenic and other heavy metals transported via pipeline.	Overland release and infiltration; vegetation contact	Direct contact with soil contaminating ground. Direct contact with vegetation	• Pipelines in bunded corridors with sumps/scour pits • Telemetry/auto cut-offs • Routine visual checks • Spill response and cleanup within dirty-water system
Tailings or decant water with elevated levels of silt/clay cyanide, arsenic and other	Overtopping of TSF	Direct contact with soil contaminating ground. Direct contact with	• Minimum 500 mm operational freeboard • Pond minimisation/central decant

Emission	Sources	Potential pathways	Proposed controls
heavy metals		vegetation	• Water balance control • Daily inspections
Leachate	Seepage through base and sides of TSF	Groundwater mounding coming into contact with vegetation root zones	• Compacted liner 2 m thick • Toe drains and sumps with return pumping • Monitoring network (6 bores + 6 piezometers)
Dust (dried tailings) with elevated levels of cyanide and other heavy metals	Dried tailings / TSF embankment potentially containing heavy metals and cyanide.	Air / windborne pathway	• Water carts; speed limits; surface wetting • TSF dust program with triggers and contingency (suppress/cease) • Progressive rehabilitation
Contaminated or sediment laden stormwater	Disturbed areas (plant, roads, WRD/TSF surfaces)	Overland flow to environment	• Channels sized to Q100 (east/west/south) with defined grades/velocities • Armouring where required by permissible velocity criteria • Visual inspections of infrastructure after rain

6.1.2 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 environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Native vegetation	No threatened or priority ecological communities within or near the premises. The area proposed to be cleared contains a total of eight individuals of the Priority 3 (P3) species *Drummondita miniata* recorded at three different sites within the application area.
Underlying groundwater (non-potable purposes) *Rights in Water and Irrigation Act 1914* – East Murchison Groundwater Area	Groundwater depth beneath the proposed TSF is about 25 - 30 mbgl. Water is noted as being present in the base of the existing open pit, however, it is not known if this is

	groundwater or surface water ponding in the base of the pit (MPS 2016). The water quality at the mine site is reported to be <5,000 mg/L (i.e. “brackish”), with regional groundwater salinity ranging from fresh to hypersaline, 650 – 130,000 mg/L TDS.
Minor, non-perennial watercourses	Within premises, to the southwest of the TSF. Seasonal minor creek 500 m to the northeast. When it is wet it runs northward, as part of the catchment to Nallan Creek, which is about 25 km to the northwest.
Priority Ecological Community – Lake Austin vegetation complexes (banded ironstone formation) – Priority 1	About 8 km south of the premises

6.2 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 6.1. 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 6.1), 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 W3079/2025/1 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, i.e. Category 5, 6, and 64 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 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 regulatory controls / DWER comments
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Tailings storage facility including pipelines, tower decant system and seepage recovery infrastructure (toe drain, sumps and pumps). Waste rock dump (WRD) and inert landfill. Process plant complex: gold processing plant (conventional grinding and CIP / CIL cyanidation plant), ROM pad and process pond for decant recovery	Dust	**Pathway**: Air/windborne pathway and deposition on leaf tissue **Impact**: Decline in health or death of native vegetation	Native vegetation	Refer to Section 6.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 1, and 2: Infrastructure and equipment – construction phase. Condition(s) 5 – 8: Compliance reporting	The dust emissions during construction of White Well TSF, WRD and gold processing plant are not likely to significantly impact nearby sensitive receptors (native vegetation). No human or fauna receptors were identified during the assessment.
	Contaminated or sediment-laden stormwater	**Pathway**: Runoff and infiltration and direct contact with plant or uptake by roots **Impact**: Decline in health or death of native vegetation		Refer to Section 6.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1, and 2: Infrastructure and equipment – construction phase. Condition(s) 5 – 8: Compliance reporting	Conditions are included in the works approval to ensure adequate stormwater diversion and capture. The nearest main water body is Nallan Creek 25 km from the prescribed premises.
Commissioning								
Commissioning of gold ore processing plant and associated pipelines	Dust	**Pathway**: Air/windborne pathway and deposition on leaf tissue **Impact**: Decline in health or death of native vegetation	Native vegetation	Refer to Section 6.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 1: Infrastructure and equipment – construction phase. Condition(s) 10 – 13: Environmental commissioning requirements and reporting	Dust management systems to be fitted during construction and tested during commissioning phase.
	Tailings or decant water with elevated	**Pathway**: Runoff and infiltration and direct contact with	Native vegetation	Refer to Section 6.1	C = Minor	Y	Condition(s) 10 – 13: Environmental commissioning	Commissioning requirements include process control alarms (for loss of containment) to be

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for regulatory controls / DWER comments
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
	levels of silt/clay cyanide, arsenic and other heavy metals	plant or uptake by roots **Impact**: Decline in health or death of native vegetation, degraded quality of groundwater for post-mine use	Groundwater beneath the premises		L = Unlikely **Medium Risk**		requirements and reporting	tested. All pipeline flow meters are to be tested; and all pressure meters are to be calibrated.
Operation (including time-limited-operations operations)								
Operation of TSF, including deposition and storage of tailings	Tailings leachate with elevated levels of silt/clay, cyanide, arsenic and other heavy metals	**Pathway**: Seepage and migration in groundwater including mounding to root zone of nearby vegetation **Impact**: Decline in health or death of species, degraded quality of groundwater for post-mine use	Native vegetation Groundwater beneath the premises	Refer to Section 6.1	C = Moderate L = Unlikely **Medium Risk**	Y	Conditions 4 and 9: Monitoring and production bore installation conditions Conditions 16 - 19: Identifies the emissions, discharge points, monitoring and compliance reporting parameters required for operating the facility.	These are standard conditions for works approvals where critical containment infrastructure is being authorised for time limited operations. The risk rating justifies the inclusion of emission management infrastructure such as seepage and groundwater recovery systems.
	Decant / process water with elevated levels of cyanide, arsenic and other heavy metals	**Pathway**: Runoff and infiltration and direct contact with plant or uptake by roots **Impact**: Decline in health or death of native vegetation	Native vegetation Seasonal minor creek 500 m north-east	Refer to Section 6.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1: Infrastructure table outlining the infrastructure to be constructed including specifications. Conditions 16 - 19: Identifies the emissions, discharge points, monitoring and compliance reporting parameters required for operating the	Conditions included in the works approval for the management of decant / process water, including for the dewatering water to be used for dust suppression.

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for regulatory controls / DWER comments
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
							facility.	
	Dust (dried tailings) with elevated levels of cyanide and other heavy metals	**Pathway**: Air/windborne pathway and deposition on leaf tissue **Impact**: Decline in health or death of native vegetation	Native vegetation	Refer to Section 6.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 16: Infrastructure and equipment requirements during time limited operations Condition 20 and 21: Compliance reporting requirements	Infrastructure and equipment requirements during time limited operations include conditions related to ongoing dust management within the gold processing plant and TSF.
Operation of processing plant, including ore processing, storage of decant recovery	Dust	**Pathway**: Air/windborne pathway and deposition on leaf tissue **Impact**: Decline in health or death of native vegetation	Native vegetation	Refer to Section 6.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 16: Infrastructure and equipment requirements during time limited operations Condition 20 and 21: Compliance reporting requirements	
	Sediment laden stormwater	**Pathway**: Runoff and infiltration and direct contact with plant or uptake by roots **Impact**: Decline in health or death of native vegetation	Native vegetation Seasonal minor creek 500 m north-east	Refer to Section 6.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 16: Infrastructure and equipment requirements during time limited operations	Conditions are included in the works approval to manage stormwater runoff around project activities.
Transport of process water, tailings and decant water via pipelines	Tailings or decant water with elevated levels of silt/clay cyanide, arsenic and other heavy metals	**Pathway**: Runoff and infiltration and direct contact with plant or uptake by roots **Impact**: Decline in health or death of native vegetation	Native vegetation Seasonal minor creek 500 m north-east	Refer to Section 6.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 16 and 17: Infrastructure and equipment requirements during time limited operations. Conditon 18: Emission and discharges during	Conditions are included in the works approval to manage tailings delivery, process water and decant return water pipelines. The applicant is also required to monitor emissions and discharges during time limited operations.

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for regulatory controls / DWER comments
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
							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.

7. 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 1 December 2025	One comment received 22 December 2025.	Refer to Appendix 1
The Shire of Cue was advised of the proposal 16 December 2025.	No comment.	N/A
Yugunga-Nya Native Title Aboriginal Corporation RNTBC advised of proposal 16 December 2025	No comment.	N/A
Department of Mines, Petroleum and Explorations (DMPE) advised of proposal 16 December 2025	DMPE responded on 3 February 2026 and confirmed that the project is approved under Mining Proposal (MP) ID 58394 and Mine Closure Plan (MCP) ID 76790. DMPE noted that the approvals are from 2016, and the applicant is still able to operate under this MP, but that it would not be expected that historic plans would align with current DMPE guidelines. If the applicant proposes to deviate from approved MP or MCP then DMPE should be notified.	Noted.
Applicant was provided with draft documents on 20 March 2026	The applicant responded to the draft documents on 30 March 2026 and waived the remainder of the comment period. No comment was made.	N/A

8. 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. Lake Austin Mining (LAM) 2024, *White Well Gold Project Prefeasibility Study Report LAM-WW-J0RP-020*, Welshpool, Western Australia.
5. Lake Austin Mining (LAM) 2016, *White Well Gold Project Tailing Storage Facility Operating Manual*, Welshpool, Western Australia.
6. 4DG / MSP Engineering Pty Ltd (4DG / MSP) 2016, *White Well Project Tailing Storage Facility Geotechnical Assessment Report*, West Perth, Western Australia.
7. The Australian Environmental and Mining Company Pty Ltd (AEMCO) 2020, *White Well Gold Project Numerical Hydrological Model Report*, Neergabby, Western Australia.
8. AQ2 Pty Ltd (AQ2) 2016, *White Well Gold Project Surface Water Assessment*, Perth, Western Australia.
9. Lake Austin Mining (LAM) 2016, *White Well Gold Project Mining Proposal Revised, Rev. 4*, Welshpool, Western Australia
10. MSP Engineering (MSP) 2020, *White Well Gold Project Process Design Criteria*, West Perth, Western Australia.
11. Lake Austin Mining (LAM) 2025, *White Well Gold Project Cyanide Management Plan*, Welshpool, Western Australia.
12. The Australian Environmental and Mining Company Pty Ltd (AEMCO) 2020, *White Well Gold Project Production Bore Wellfield Construction and Aquifer Testing Report*, Neergabby, Western Australia.

Appendix 1: Summary of stakeholder comments

Summary of stakeholder comment	Department's response
<u>Surface water management</u> The stakeholder expressed concerns that the project's surface-water work is based on older information and may not reflect current understanding. They noted that: • the hydrological modelling relies on 2016 data and does not appear to account for more recent rainfall trends or future climate-change impacts. • the diversion drains may not be large enough to safely pass major storm events, increasing the risk of overtopping or erosion. • there is limited discussion of the hydraulic capacity and erosion protection of the drains; and • sedimentation basin sizing and performance objectives are not clearly explained.	The surface water assessment underpinning the proposal is based on a site-specific hydrological study completed in 2016. While the modelling is not recent, the adopted rainfall–runoff methods, design criteria and recurrence intervals remain appropriate for the purposes of a works approval assessment. Diversions and drainage infrastructure are designed to accommodate the 1% AEP (100-year ARI) event, with defined grades, flow depths and velocities, providing a conservative design margin for episodic extreme rainfall typical of the region. Flood estimation used established RAFTS and ARR methodologies, which remain accepted practice for mine-site surface water design in Western Australia. The decision report has confirmed that clean and dirty water systems are segregated, diversion channels are sized well above routine flows, and sediment controls are included to manage erosion and sediment transport during higher-intensity storm events. These measures reduce sensitivity to variability in rainfall magnitude and temporal distribution. Surface water impacts under this works approval are limited to on-site controls and do not rely on precise prediction of downstream hydrological response. The department is satisfied that the existing modelling, combined with conservative design assumptions and inspection and maintenance requirements included in the works approval, is sufficient to manage surface water risks associated with construction and time-limited operations.
<u>TSF stability</u> The stakeholder comment raises the view that the TSF embankment design information is incomplete. Specifically, the stakeholder states that: • no rapid-drawdown or seismic analysis has been provided, making it difficult to assess embankment performance during extreme conditions. • kaolin-based embankments can be susceptible to liquefaction, yet no liquefaction assessment was included; and • further detail is needed on filters, drainage, and the instrumentation used to monitor stability over time.	The TSF is designed as alternating centreline/downstream embankments to a maximum height of 15 m using kaolin waste rock with ferricrete armouring. Geotechnical submissions include static and pseudostatic stability analyses by lift and a liquefaction assessment of kaolin materials. Construction details (embankment geometry, materials, filters/drainage) and instrumentation are addressed. Part V has imposed construction and monitoring requirements relevant to emissions risk, however TSF consequence classification and population at risk (PAR) assessment are regulated under the Mining Act and fall within DMPE's regulatory jurisdiction. The applicant is approved under Mining Proposal (MP) ID 58394 and Mine Closure Plan ID 76790. These matters are not assessed under Part V and therefore are not considered further in this

Summary of stakeholder comment	Department's response
	report.
<u>TSF seepage and monitoring</u> The stakeholder remains concerned about how seepage will be controlled and monitored. They suggest that: • seepage control design (liners, underdrainage) has not been fully justified. • the monitoring network (piezometers and groundwater bores) is not clearly described, including construction details, sampling frequency, or analytes. • baseline monitoring should be completed before operations begin; and • the project needs a clear and structured response plan if seepage or groundwater levels exceed expectations.	Seep/W analyses were undertaken for centreline and downstream sections for multiple liner thicknesses. Based on reductions in predicted discharge, a 2.0 m compacted floor liner is incorporated, complemented by an outer toe drain with sumps and return pumping. A monitoring network of six groundwater bores (WMB1–WMB6) and six embankment piezometers is to be installed prior to tailings deposition. Monitoring frequencies include weekly piezometric levels, fortnightly standing water levels (WMB1–WMB5), monthly field EC/pH/WAD CN, quarterly laboratory EC/pH/WAD CN, and annual comprehensive water quality for decant water and bores. These requirements are included in the works approval and provide baseline and operational performance verification without deferral.
<u>Tailings physical and chemical characteristics</u> The stakeholder comment notes that while physical properties of the tailings have been described, chemical risks have not been characterised to the same level. In particular, the submitter suggests: • testing of tailings solids for total metals, leachability, and acid-forming potential. • confirmation of supernatant chemistry; and • greater clarity on the long-term behaviour of the tailings in the TSF environment.	Physical properties of tailings-forming material are evidenced (particle size distribution, Atterberg limits, permeability, dry density, shear strength). Supernatant chemistry for the process circuit is provided (e.g., pH ~10; WAD CN <50 mg/L; Total CN ~200 mg/L). The works approval requires ongoing field and laboratory monitoring and annual comprehensive analysis of decant water and groundwater, ensuring chemical risks are tracked. The applicant must maintain characterisation records in the TSF operating documentation and manage any identified risks through operational controls under the works approval.
<u>Landfill design</u> The stakeholder believes the landfill description is incomplete. The comment highlights: • an apparent absence of liner, leachate collection, gas venting or closure considerations; and • concern that any landfill seepage could interact with the dewatering system or stormwater flows during large rainfall	The proposal is for a Class II putrescible landfill located within the WRD footprint. The landfill comprises 12 trenches (approx. 30 m × 10 m × 2 m) with contoured banks/bunds to divert uncontaminated stormwater, and it will be progressively covered within the WRD and capped at closure. Additional location and design details have been incorporated into the decision report and instrument. Related construction and operational requirements are consistent with those outlined in the *Environmental Protection (Rural Landfill) Regulations 2002*, which is applicable to Category 89 landfill premises.

Summary of stakeholder comment	Department's response
events.	
<u>Cumulative impacts</u> The stakeholder comment raises a broader issue regarding cumulative effects. It states that: • the application does not consider how multiple components of the project (altered runoff, sediment transport, seepage, and potential contaminants) might interact at the catchment scale; and • downstream environments such as Nallan Creek and Lake Austin may be subject to cumulative pressures that are not addressed here.	Part V assessments address the direct risks to receptors from the prescribed activities under this application. Downstream context has been considered - e.g., minor non-perennial watercourses occur within the premises, and a seasonal creek ~500 m to the northeast, with Nallan Creek ~25 km to the northwest. Risk-based conditions regulate site contributions via diversion capacity, erosion/sediment controls and monitoring.
<u>Heritage and cultural management</u> The stakeholder comment notes that there is: • no Cultural Heritage Management Plan provided; and • an expectation that Traditional Owners should be consulted and that survey coverage and engagement should be demonstrated.	A review of the application and DWER's internal GeoCortex system indicates that the nearest registered Aboriginal heritage site is located approximately 11 km from the White Well Project area. No Aboriginal heritage sites occur within, or immediately adjacent to, the proposed disturbance footprint. The stakeholder submission does not identify any concerns regarding direct impacts to Aboriginal heritage sites within or near the premises.
<u>Clean/dirty water segregation</u> The stakeholder comment queries how clean runoff will be separated from dirty water on site. They indicated that: • the application does not clearly show how upstream clean flows are diverted around disturbed areas; and • locations and design details of bunds, drains and sedimentation basins should be clearly documented.	The applicant submitted an "Operational Surface Water Management Plan" which outlines clean/dirty water segregation, east/west/south diversions (and other site bunding) and a sedimentation basin at low points. These measures are adopted in Section 3 and are subject to construction completion and compliance reporting requirements under the works approval.
<u>Groundwater and dewatering linkages</u> The stakeholder comment raised concerns about the interaction between	A MODFLOW-based numerical model indicates dewatering drawdown is largely confined to the pit vicinity under tested scenarios. The monitoring program (bores and piezometers, with specified frequencies and analytes) provides the mechanism to confirm modelled responses

Summary of stakeholder comment	Department's response
pit dewatering and TSF seepage, stating that: • it is unclear how groundwater drawdown from dewatering will interact with seepage beneath the TSF. • there is no clear explanation of risks if inflows or groundwater gradients change; and • groundwater modelling assumptions need to be transparent.	during operations and to manage any deviations through reporting and operational controls within the works approval.
Application completeness The stakeholder comment finally notes several administrative issues, including that: • key sections of the application form were marked "N/A" when additional detail was expected. • the application lacked consolidation of essential supporting studies; and • the overall completeness of documentation affects confidence in the assessment.	This decision report includes hydrology, geotechnical / seepage and monitoring evidence and proposals. Residual items not originally included with the application were sought through Request for Information (RFI) process during the assessment phase. Additional reports and supporting information were supplied periodically by the applicant (when requested by the department) and these additional details have been included in the decision report where relevant.