

DIANNE COPPER MINE

Progressive Rehabilitation and Closure Plan

October 2025



EA holder: Mineral Projects Pty Ltd and Tableland Resources Pty Ltd
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Queen Street, Brisbane, QLD, 4000
Tenure: ML 2810, ML 2811, ML 2831, ML 2832, ML 2833 and ML 2834
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1 Introduction

The Dianne Copper Mine is located in Cape York Peninsula, Queensland, approximately 160 kilometres northwest of Cairns and 100 km southwest of Cooktown (Figure 1). The Dianne Copper Mine comprises Mining Leases ML 2810, ML 2811, ML 2831, ML 2832, ML 2833 and ML 2834. The mine has been under care and maintenance since copper mining activities ceased in 1982, with mining operations due to recommence early 2025 as part of a major EA amendment application. The proponent for the Dianne Copper Mine is Mineral Projects Pty Ltd and Tableland Resources Pty Ltd.

This Progressive Rehabilitation and Closure Plan (PRCP) has been prepared in accordance with the Environmental Authority (EA) EPML00881213. The plan has also been completed in accordance with the Department of Environment, Tourism, Science and Innovation (DETSI) *Guideline: Progressive rehabilitation and closure plans 2021* and the *Environmental Protection Act 1994*. In addition, publications and advice from the Office of the Queensland Mine Rehabilitation Commissioner have been reviewed and considered throughout the PRCP and PRCP schedule.

This PRCP describes the rehabilitation planning for the Dianne Copper Mine, and is set out as follows:

- Section 1 introduces the mine and this PRCP;
- Section 2 describes rehabilitation planning including:
 - project planning
 - community consultation
 - post-mining land use
 - rehabilitation management
 - risk assessment
 - monitoring and maintenance
- Section 3 provides references for this PRCP;
- Appendix 1 outlines the PRCP schedule; and
- Appendix 2 provides a copy of the technical final landform and cover design report.

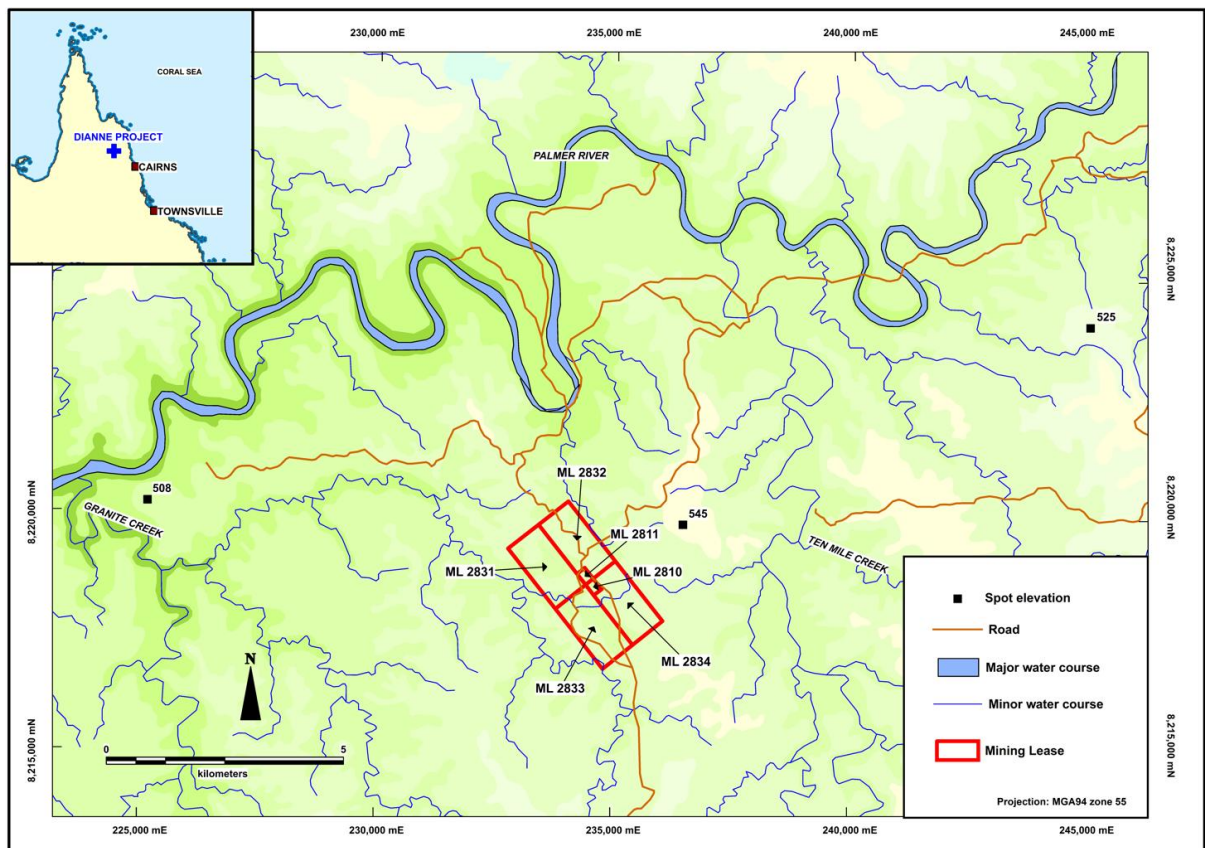


Figure 1: Regional Location of Dianne Copper Mine

2 Rehabilitation Planning

2.1 Project Planning

The historic mining operations under care and maintenance since 1982 at Dianne Copper Mine consist of a total of 14.1 ha disturbance, and include:

- Pit and portal
- Run of Mine site
- Waste rock stockpile
- Settling Dam
- Raw Water Dams 1 and 2
- Roads and tracks
- General re-profiled area, including infrastructure areas
- Rehabilitation areas

The mine was developed for high grade copper ore production in the 1970s and operations ceased in 1982 when the mine was put under care and maintenance due to the global fall of copper prices. At this time, all material handling infrastructure was removed from site and rehabilitation of some areas of the site was carried out.

Exploration activities have been ongoing sporadically as required since commencement of the mine.

Since the mine was put under care and maintenance, the focus has been on rehabilitation of identified areas, review of all available data and including old drill cores supported by strategic exploration drilling. The current EA EPML00881213 came into effect on 31 July 2023.

The Dianne Recommencement Project was submitted in late 2024 for the recommencement of mining at the site as detailed in this PRCP. The mine life is anticipated to be 5 years plus additional rehabilitation periods, which is covered by this PRCP.

Current end of the mining leases is April 2028, which will be extended upon application.

The Dianne Recommencement Project (the project) involves the recommencement of mining and associated activities at the Dianne Copper Mine. The project will include:

- Mining approximately 1.6 Mt of copper ore as a single pit with an approx. depth of 124 m using conventional excavator and truck load and haul methods. A throughput of up to 900,000 tonne per annum of ore will be mined with a target recovery rate of 85%. Note the pit will be located over the old open cut pit and portal. Additional minerals may also be mined, namely silver and zinc. The draft project layout is shown in Figure 2.
- Processing ore via crushing, screening, agglomeration and stacking circuits on up to six heap leach pads. Ore will be crushed and stacked on a specially prepared and lined heap leach pad area with overall approximate dimensions of 300 meters (m) length by 100 meters width. Stockpiles on the pads will be to a height of approximately up to 6 m. No tailings dam is required on site, and spent ore will be rinsed, removed from the leach pads, stockpiled, reprofiled and rehabilitated in a manner that is consistent with the existing approved PRCP.

As detailed in Section 6, definitions of material include:

- Overburden = material removed from above the ore body to allow the excavation of ore, in addition to any material below ore cutoff grade (being 0.25% copper). Overburden material will be used in construction, to backfill the pit for final landform design, and remainder placed in a Waste Rock Stockpile.
- Spent Ore = the material that remains once processing is finished. Spent Ore material will be used to backfill the pit for final landform design where shown this is geochemically suitable, and remainder placed in a Waste Rock Stockpile.
- Waste Rock = the existing waste rock stockpile leftover from historic operations. The existing waste rock will be crushed and processed in the same manner as ore. Once reprocessed, waste rock will be treated as Spent Ore.

Processing of the ore will generally include:

- Mining of copper ore and existing/historical waste rock.
- Beneficiation of ore by crushing using mobile crushing plant typical of a medium-size quarry and then 'agglomerating' the ore into small pebbles.
- Heap leaching the copper from the beneficiated ore by irrigating it with acid on High Density Poly Ethylene (HDPE)-lined pads which will be constructed to contain any runoff from heaps.
- Treating the pregnant liquor (fluid containing copper) by solvent extraction to recycle acid for reuse in the heap leaching process and generate copper-rich electrolyte.
- Using electric circuits to extract sheets of copper on electric cathodes (electrowinning).
- Reprocessing the existing waste rock stockpile to then be treated in the same manner as ore.
- Mine infrastructure upgrades and construction including:
 - Run of Mine stockpile area
 - Access roads to site from Whites Creek Road
 - Temporary accommodation camp and associated sewage treatment plant
 - Water management infrastructure including additional remediation and upgrading of the existing Settling Dam (to be renamed the Release Dam)
 - Heap Leach pads
 - Workshop facility
 - Site office
 - Temporary fuel storage in fully bunded areas
 - Power infrastructure (solar and diesel combination) (Figure 3)
 - Solvent Extraction and Electrowinning processing areas
 - A small landfill for construction and general waste (approximately 2,400 m²)
 - Topsoil and subsoil stockpiles
- Employment of approximately 35 construction and 40 operation staff. Opportunities will be prioritised for Indigenous people supported by on-the-job training, and employment, with an aim of a minimum 20% FTE Indigenous employment. In addition, local employment opportunities will be made available from the Lakeland, Cooktown, Mareeba and Mossman regions.
- Ongoing exploration programs will be aimed at confirming additional mineral resources.

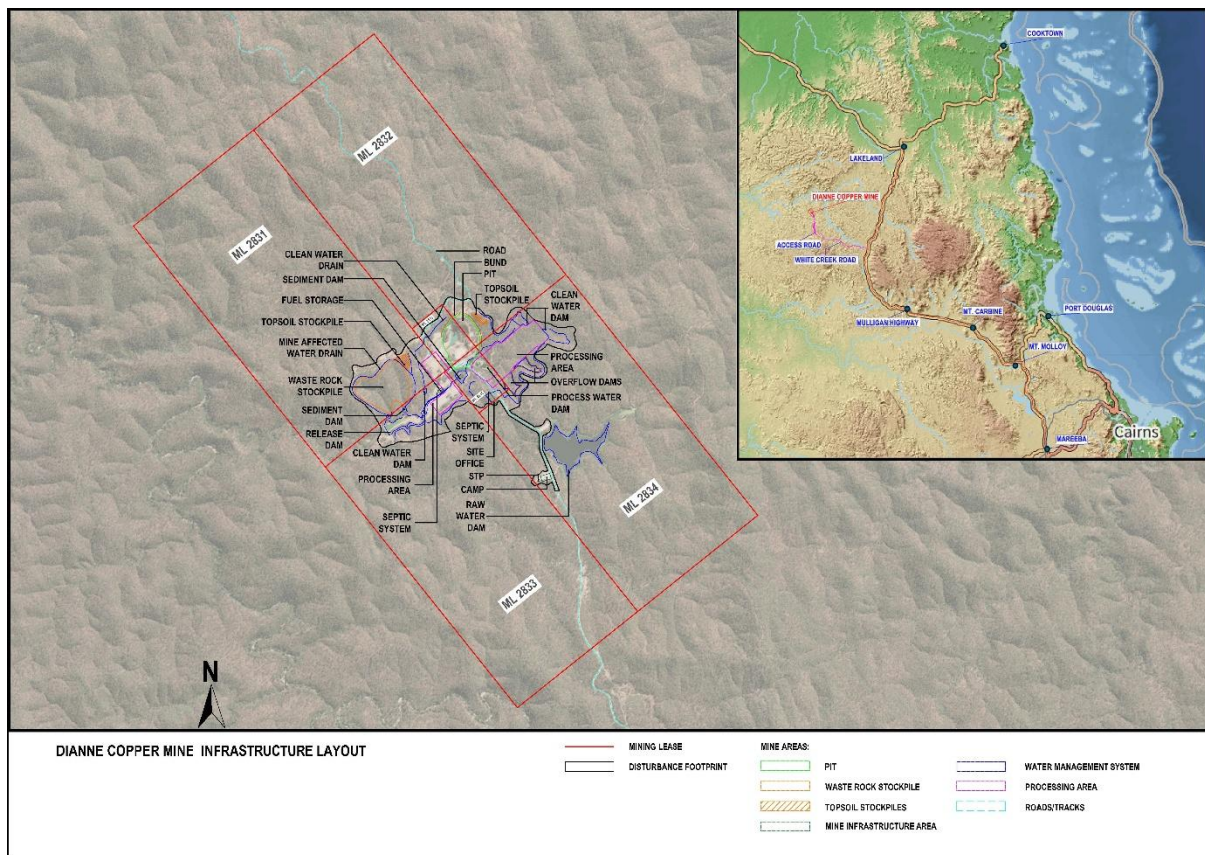


Figure 2: Project Layout



The STP will be located at the temporary accommodation village as shown on Figure 3. It will be adequate for the 40 FTE staff for the project operations and will be compliant with ERA 63 – Sewage Treatment (i.e. sized between 21 and 100 EP) and will be able to comply with “Eligibility criteria and standard conditions Sewage treatment works (ERA 63)” (ESR/2015/1710).

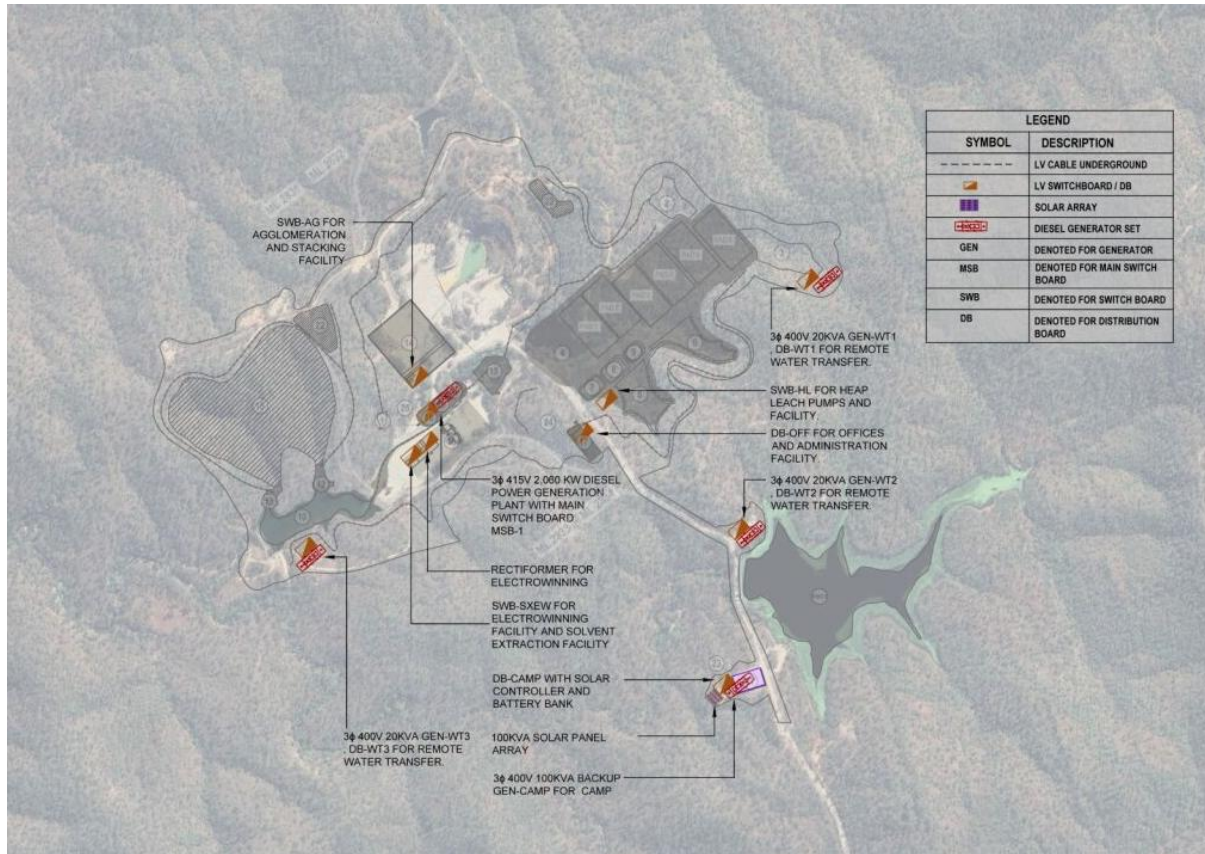


Figure 4: Mine Electrical Reticulation Layout

The major disturbance areas for the project, per Figure 2, are:

- Infrastructure – incorporating the temporary accommodation village, sewage treatment plant, office, workshop and main roads.
- Pit – incorporating the mining operations pit.
- Waste Rock Stockpiles – incorporating the temporary and permanent overburden stockpiles.
- Mine Water Management – incorporating all mine water management systems including dams, drains, etc.
- Processing Area – incorporating the ROM area, heap leach pads and Solvent Extraction and Electrowinning Areas.
- Other – incorporating all other disturbance which includes minor access tracks, power and pipe lines, topsoil stockpiles, fire breaks and buffer areas.

An area marked 'Other Disturbance' zone surrounding the entire project disturbance boundary has been included for the project. These areas are not anticipated to be significantly impacted by the project, and were included in all field surveys and technical studies, including flora and fauna wet season and dry season studies to ensure all potential environmental values for the project were identified. Importantly, they provide space for minor disturbance such as fire breaks and access to monitoring points, in addition to a buffer between mining operations and non-disturbed areas to help mitigate on site impacts. The

application is seeking approval for the total disturbance boundary of 50 ha, however 27.8 ha of this is minor disturbance (access roads, power and pipe lines, topsoil stockpiles, etc.) and buffer areas.



Figure 5: Dianne Copper Mine Site (May 2021)

The current Estimated Rehabilitation Cost (ERC) was approved on 17 May 2022. The ERC will be updated upon approval of the EA amendment.

2.1.1 Mining Tenements

The mining titles held for the mine are outlined in Table 1.

Table 1: Mining Tenements

Title	Type and Purpose	Status	Grant Date	Expiry Date	Area
ML 2810	Mining and exploration	Granted	24/04/74	30/04/28	5.7
ML 2811	Mining and exploration	Granted	24/04/74	30/04/28	5.7
ML 2831	Mining and exploration	Granted	2/08/73	30/04/28	129.5
ML 2832	Mining and exploration	Granted	15/11/73	30/04/28	123.8
ML 2833	Mining and exploration	Granted	15/11/73	30/04/28	129.5
ML 2834	Mining and exploration	Granted	15/11/73	30/04/28	123.8

2.1.2 Environmentally Relevant Activities

The following Environmentally Relevant Activities (ERAs) will occur for the project:

- Schedule 2
 - ERA 8 – chemical storage - 1 storing a total of 50t or more of chemicals of dangerous goods class 1 or class 2, division 2.3 under subsection (1)(a)

- ERA 30 – metal smelting and refining - (d) more than 10,000t of metals or metalloids
- ERA 31 – mineral processing - 2 processing, in a year, the following quantities of mineral products, other than coke— (b) more than 100,000t
- ERA 60 – waste disposal - 2 operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(b)— (a) less than 2,000t
- ERA 63 – sewage treatment - 1 operating sewage treatment works, other than no-release works, with a total daily peak design capacity of— (a) 21 to 100EP— (i) if treated effluent is discharged from the works to an infiltration trench or through an irrigation scheme; or
- Schedule 3
 - ERA 17 – mining copper ore

Under EA Condition A16, exploration will comply with Standard Environmental Conditions contained in the "Eligibility criteria and standard conditions for exploration and mineral development projects" (ESR/2016/1985).

ERA 63 – Sewage Treatment will be able to comply with "Eligibility criteria and standard conditions Sewage treatment works (ERA 63)" (ESR/2015/1710).

No other ERA Standard Conditions are requested for the project.

2.1.3 Landownership

Underlying tenure for all leases is Lot 66 SP245572, owned by Bonny Glen Holding under a Lands Lease rolling term lease pastoral holding. Bonny Glen Holding is owned by the Gummi Junga Aboriginal Corporation (GJAC), who are also the Traditional Owner representatives of the land. The proponent has an agreement with GJAC for mining activities within the mining leases, who are generally in support of the recommencement of mining at the site.

The Bonny Glen Holding is a grazing property and is also the adjacent land holding to the site.

The Western Yalanji Aboriginal Corporation RNTBC are the registered Native Title body across the site under Native Title Determination QCD1998/001, QCD2006/001, QCD2013/002, QCD2013/003 as registered on 30/12/1998.

Representatives of the Western Yalanji People participated in multiple field surveys throughout 2023 and 2024 to provide an assessment of proposed impacts of the project. The field surveys focused on cultural and ecological values of the proposed area from the perspective of traditional custodians. The ecological values including traditionally used plants such as medicinal plants, food plants, calendar plants and uses of vegetation as habitat for key species, ecosystem services and or significant environmental features. In addition to the culturally important ecosystem services the cultural field surveys included inspection for cultural heritage values, cultural sites and artefacts such as stone tools, scar trees, and occupation sites. The Western Yalanji People cultural heritage and environmental surveys confirmed there are no cultural sites or cultural artefacts of cultural importance in the proposed disturbance area. It is confirmed there are no significant ecosystem services identified during this survey that would be impacted by the proposed project.

All ground disturbance and new clearing works proposed for the project will include Western Yalanji people as monitors to help support identification of any cultural artefacts that maybe identified through ground disturbance and to ensure the project does not harm cultural heritage, which will achieve the duty of care obligation under the *Aboriginal Cultural Heritage Act 2003*.

The proposed mining operations at Dianne Copper Mine consist of the disturbance areas in Table 2.

Table 2: Disturbance Areas

Mine infrastructure	Area (Ha)
Infrastructure	0.93
Pit (including historic pit and portal area)	4.84
Overburden Stockpile	4.74
Mine Water Management Dams (including Overflow Dams, Process Water Dam, PLS Pond and ILS Pond)	7.02
Release Dam (previously Settling Dam)	0.75
Processing Area (including ROM and Heap Leach Pads)	6.97
Other Disturbance (including roads and tracks)	24.77
Total Area:	50

The following section outlines the historical operations at Dianne Copper Mine, and the anticipated future operations.

2.1.3.1 History of Dianne Copper Mine and Copper Ore Reserves

There is a long history of exploration activities that have been undertaken within the Dianne Copper Mine mining leases.

The Uranium Corporation commenced exploration activities in 1958 at the Dianne Copper Mine to assess the deposit. These exploration results were inconclusive.

In 1968, North Broken Hill Pty Ltd carried out core drilling and calculated reserves of 451,000 tonne of oxidised copper ore, although no mining was carried out as reserves were below company targets.

In 1969, Kennecott Exploration Pty Ltd carried out further drilling. The rich supergene zone of the copper massive sulphide deposit was discovered in Kennecott Exploration's second drill hole in 1968, with an intercept of three metres of 30% copper.

In 1979, Mareeba Mining and Exploration Pty Ltd acquired the deposit. Once acquired, they then estimated 90,000 tonnes of ore at 24% copper was located within the mining leases, and commenced developmental work. Production of direct shipping grade ore commenced and the secondary copper was mined to a depth of 90 m where it gave way to a massive sulphide ore. All of the ore from this operation was trucked to Cairns and shipped to Japan and Korea as direct shipment ore (DSO).

Partial mining in the period 1979-82 extracted some 68,000 tonnes of ore at 23% copper by open stoping, with a further 5,800 tonnes of 22% copper from a near-surface open cut. The operation was terminated at the end of 1982 due to the fall in world copper prices.

Mareeba Mining and Exploration Pty Ltd carried out mining as an underground operation followed by a short period as an open cut mine, ending in 1983. It was then taken over by Nickmere Pty Ltd the ownership was transferred to DMC (Dianne Mining Corporation Pty Ltd). Ownership of the DCM changed hands in mid-2005. In 2019/2020, the operation of the mine changed from DMC to Mineral Projects Pty Ltd and Tableland Resources Pty Ltd.

2.1.3.2 Ongoing Mining Activities

The following activities will be undertaken within the mining leases and are shown on Figure 6.

- Mining operations in an open cut pit using conventional excavator and truck load and haul methods.
- Processing of ore via crushing, screening, agglomeration and stacking circuits.
- Mine infrastructure upgrades and construction including:
 - Run of mine laydown area
 - Access roads
 - Temporary accommodation camp and associated sewage treatment plant
 - Water management infrastructure including additional remediation of the existing Settling Dam
 - Workshop
 - Power infrastructure (solar and diesel combination)
 - A small landfill.
- Ongoing exploration activities. Exploration activities including drilling, drill pad preparation, installation of temporary infrastructure and/or upgrade of associated minor infrastructure (e.g. temporary crib hut) and access tracks (undertaken per *"Eligibility criteria and standard conditions for exploration and mineral development projects"* (ESR/2016/1985)). Exploration activities will be ongoing over the life of the mine and be completed across the mining leases as required, and rehabilitated per the EA.
- Rehabilitation of disturbed areas

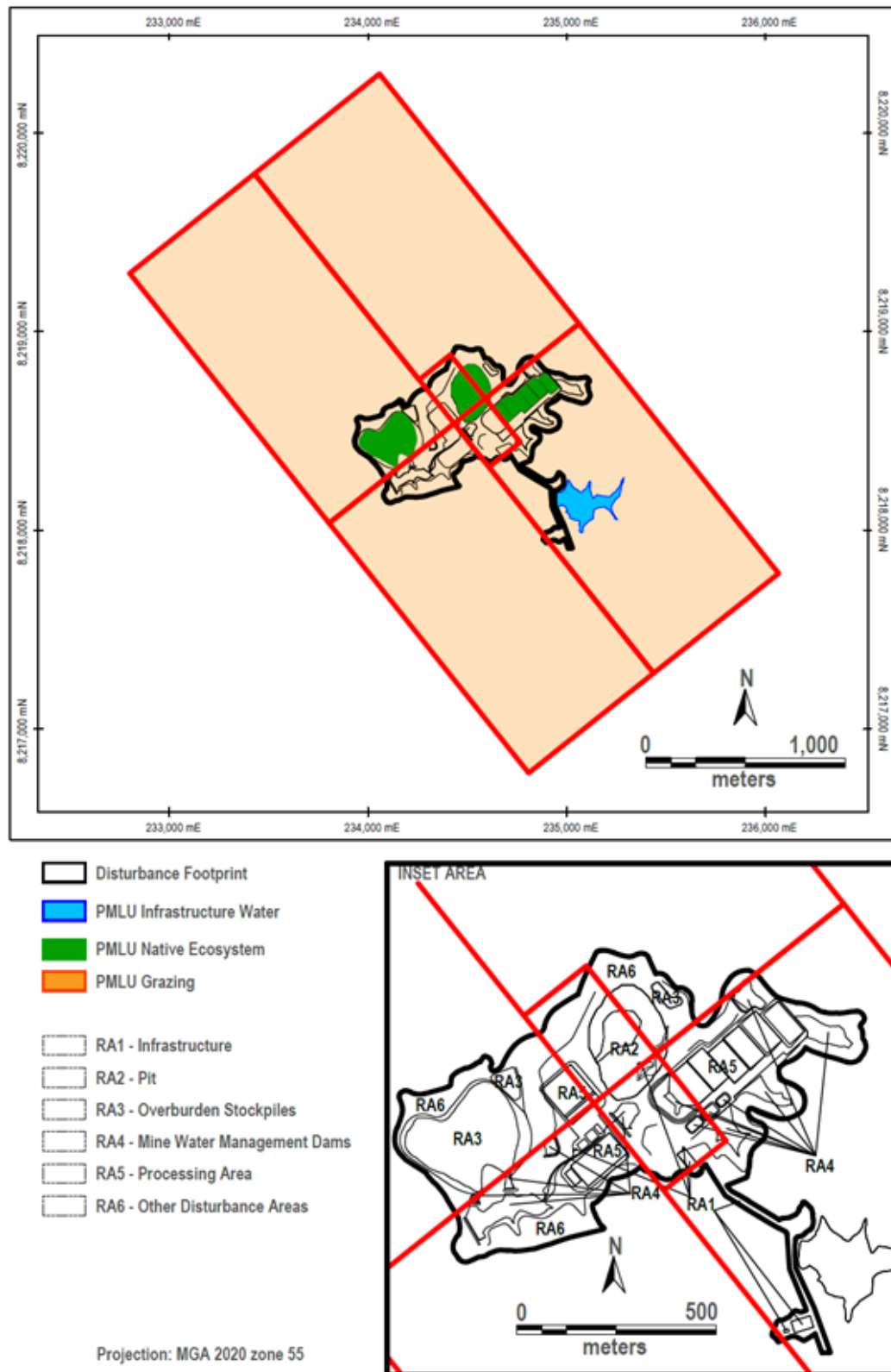


Figure 6: Reference Map
(See also Dwg. J022.130.10-SKE-001.07.1-Reference_Map)

2.1.4 Design for Closure

Any new mining infrastructure will be located and designed to comply with the requirements in the *Environmental Protection Act 1994* (EP Act) including locating in a way to protect environmental values and suitability of topography and structural characteristics of areas.

2.1.5 Regional Setting and Site Topography

The mining leases are located within an area of ridging topography (Figure 7). The site generally falls to the north, and regionally the area falls to the north and east to the Palmer River.

The Dianne Copper Mine is wholly located within the Bonny Glen pastoral lease, which has been used historically for cattle grazing, which continues outside of the lease areas. The region has been significantly impacted by historical mining operations including alluvial gold mining from the 1850's, with extensive cattle grazing the current main land use.

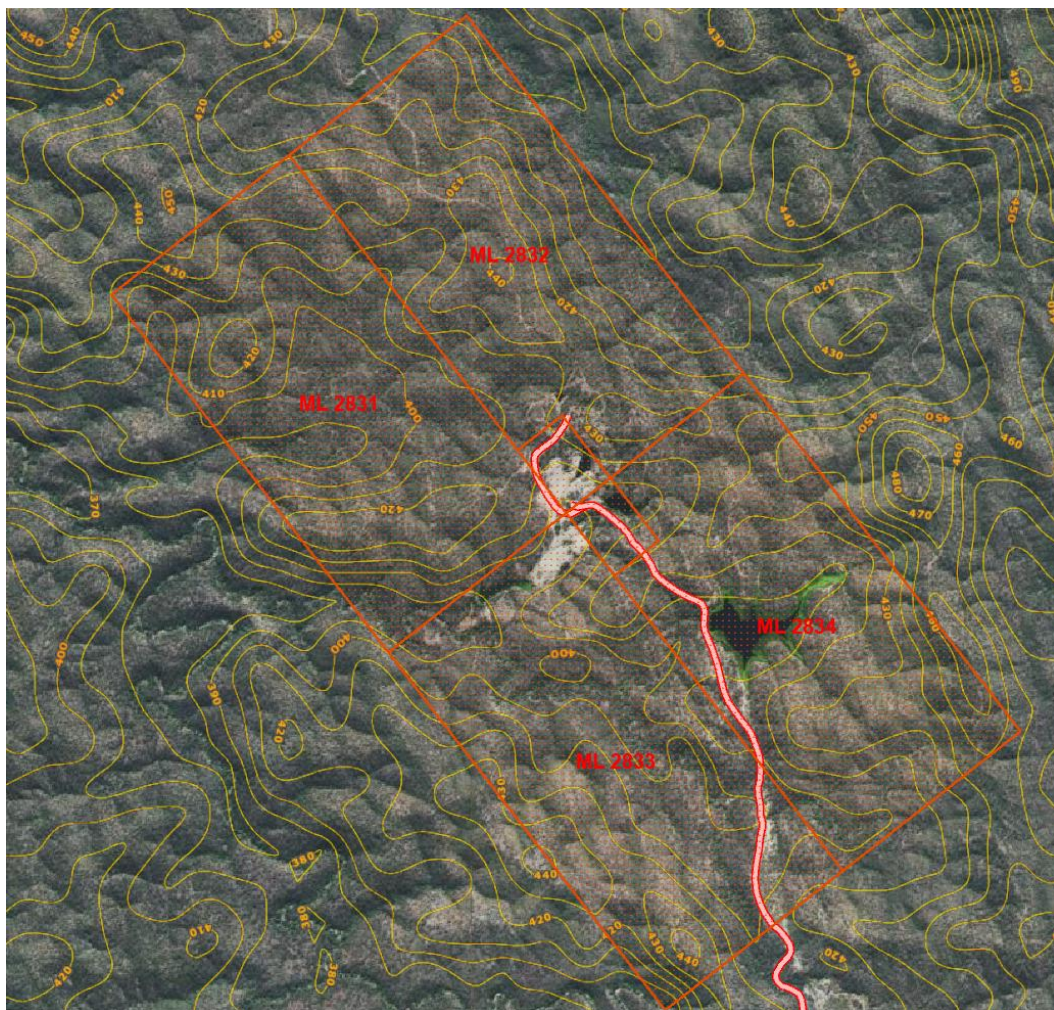


Figure 7: Topography (Queensland Globe, 2021)

2.1.6 Site Hydrology and Fluvial Networks

The main receiving environment of the project site is Gum Creek. The site has two main watercourses, both unnamed tributaries of Gum Creek and referred herein as South Creek and North Creek. Both these tributaries flow into Gum Creek, which joins Granite Creek before entering the Palmer River less than 2 km north of the mine lease boundary. Gum Creek is a contributing catchment to the Palmer River sub-basin, which is part of the Mitchell River basin flowing west into the Gulf of Carpentaria.

The Palmer River sub-basin covers approximately 8,424 km², while the Mitchell River basin contains about 71,622 km². Large portions of the Palmer River catchment area have historically been targeted for gold mining (dating back almost 150 years), including the Gum Creek catchment. While alluvial gold mining still occurs within Gum Creek, it is no longer the dominant land use within the region. Beef cattle grazing is the main land use within the Palmer River catchment area.

Watercourses within the region record peak flows in the wet season, with North Creek being ephemeral (only flowing while rains persist) and South Creek being intermittent (minor flows sustained for an extended period after the wet season via groundwater seepage). It is likely that all three systems dry out entirely over the dry season, although pools are expected to persist year-round in some areas (C&R, 2024).

The mine site is located high in the upper catchment. The drainage lines/watercourses in this area are characterised as steep, small valleys formed in between the many hills. The mine's positioning within the catchment and the geomorphology of the catchment area suggests it would be highly unlikely to be affected by riverine flooding (C&R, 2021).

The area of the Gum Creek catchment above the junction with the site is approximately 3,750 ha. The site has a catchment area of approximately 310 ha.

The region has historically been mined, including alluvial gold mining from the 1850's, with extensive cattle grazing the current main land use.

2.1.7 Groundwater Levels and Properties

A detailed groundwater investigation and impact assessment has been completed for the site, including field work and completion of a conceptual groundwater model. In summary:

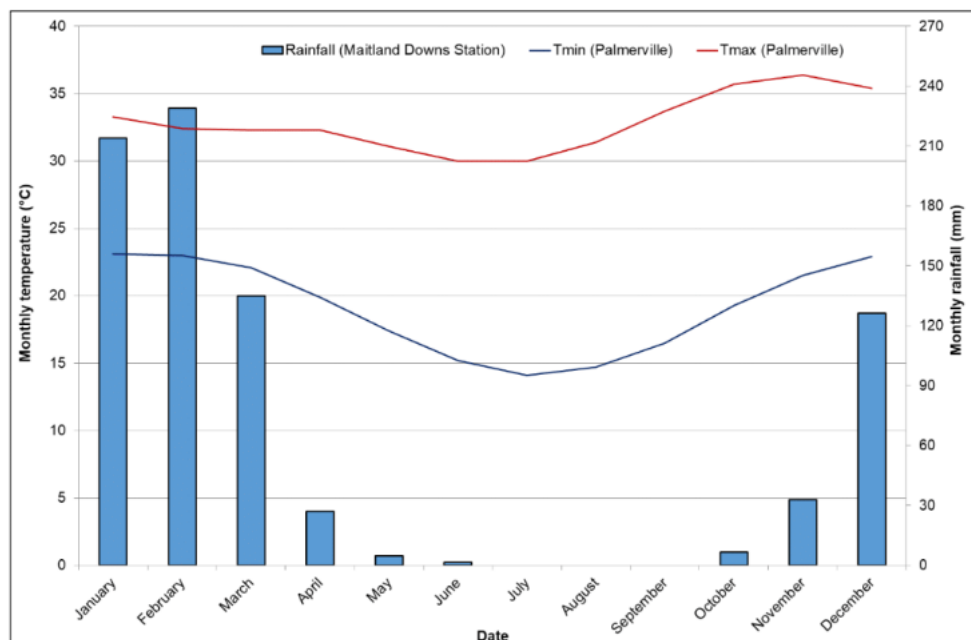
- No registered groundwater bores exist within the bounds of the mining leases, or within a 10 km radius. There are 23 registered bores within a 30 km radius of the site, of which 9 are abandoned. These bores are utilised for groundwater monitoring of nearby mines, exploration, and homestead water supply.
- There are no mapped groundwater dependent ecosystems (GDEs) within the mining leases, however most of the waterways within the local area are considered GDEs because water (flows and remnant pools) is maintained for an extended period (i.e. months) following significant rainfalls.
- Groundwater quality data displays no evidence of impacts from historical mining operations.

2.1.8 Climate

The site sits within the Queensland seasonal dry tropics. The climate in this region is dominated by high rainfall during the wet season (November to April) and low rainfall during the dry season (May to October). The region is characterised by hot weather throughout the year, and as such evaporation usually exceeds total rainfall.

The closest Bureau of Meteorology (BOM) stations to the site are located at Maitland Downs Station (BOM Station 28013) located approximately 24 km south-east of the site, and Palmerville (BOM Station 28004) located approximately 50 km west of the site. The region receives approx. 922 mm of rainfall per annum, with the majority of rainfall falling in the summer months. Average rainfall is shown in Graph 1. Evaporation rates are high and are often higher than 2,000 mm per annum (BOM, 2021), with average annual evaporation shown in Figure 8.

Temperatures are higher in summer and cooler in winter (Graph 1).



Graph 1: Average Rainfall and Temperature (C&R, 2024).

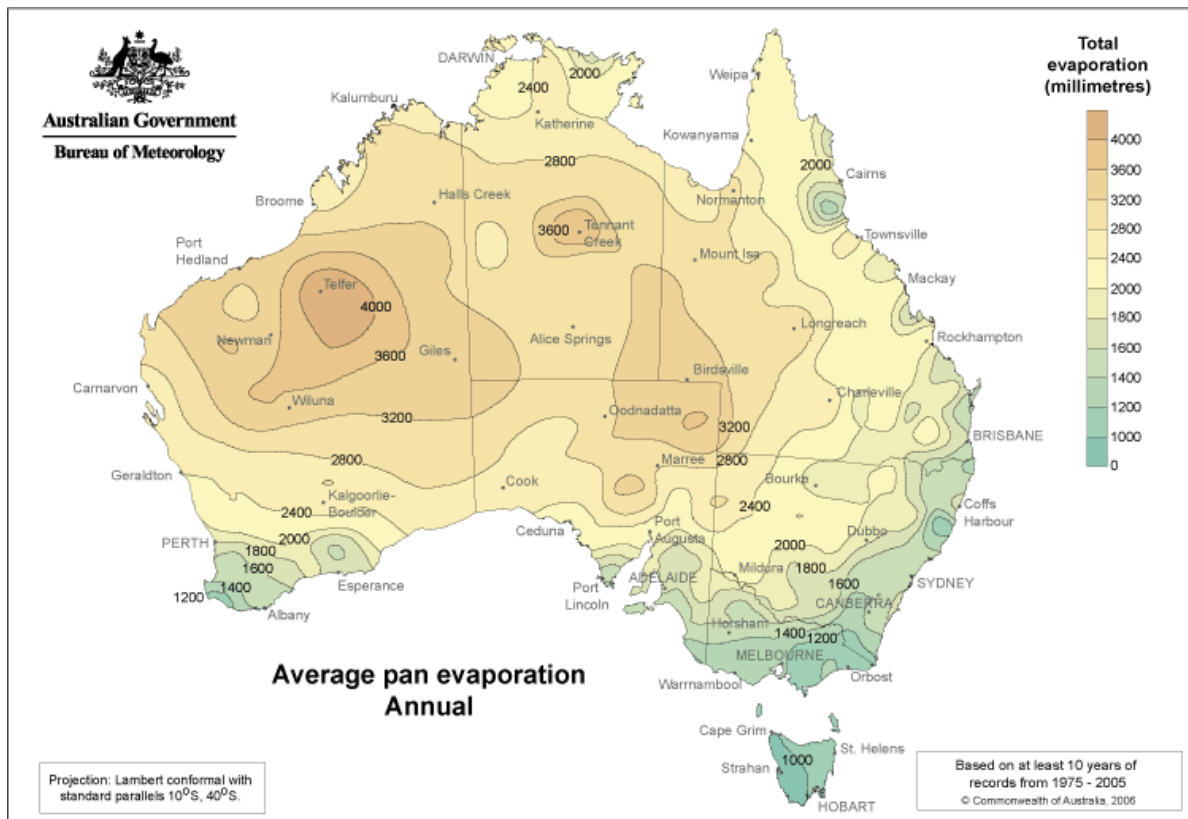


Figure 8: Total Annual Evaporation (mm) (BoM, 2021).

Long-term climate projections for the region will be influenced by continually evolving climatic change. The long-term climate projections for Queensland and the region include (Climate Change in Australia, 2021):

- Increased temperatures.
- Increase number of 'hot' days above 35 °C.
- Longer fire seasons.
- More intense extreme rainfall events during the wet season.
- Dryer dry seasons.

2.1.9 Geological Setting

The DCM lease area in the central northwestern Hodgkinson Province comprises an Ordovician to Early Carboniferous metasedimentary package with minor mafic intrusive dykes (Hodgkinson Formation; Halfpenny and Hegarty, 1991; Kositcin et al, 2015). Regional deformation resulted in strong folding and faulting of strata, characterised by north-northwest stratal alignment, dipping steeply eastward (Henderson and Donchak, 2013). Strata are disrupted by extensive north-northwest-oriented fault-bounded belts (Withnall and Cranfield, 2013).

The geological structure is characterised by shallow plunging isoclinal folding and associated pervasive slaty cleavage aligned north-northwest. The dominant fault system trends north to northwesterly, subparallel to the major bedding and cleavage direction (Davis and Henderson, 2013). An overprinting (i.e. late) east-southeast trending fault set persists across the region, along with extensive dolerite and microdiorite dykes aligned parallel to the northwest major

faults. These structures and fabrics are associated with the main shortening events (D1 and D2) of the Mossman Orogen (Davis and Henderson, 2013).

The DCM deposit is situated on the sheared western limb of a kilometre-scale antiformal fold that closes to the east of the mine. Shear zones occur at an acute angle relative to the north-northwest regional fabric and at all scales. The western limb is disrupted by multiple shear zones with sinistral movement forming a north-northwest oriented zone known as the Dianne high strain zone (DHSZ). At a local scale, this strain results in pervasive subvertical conjugate cleavage fractures and pencil cleavage where stratal bedding and cleavage intersect.

Pit-scale mapping shows well-developed horizontal sheeting joints. Sheeting joints typically develop from compressive horizontal stress and unloading. They are persistent, closely spaced and form within tens of metres from ground surface but tend to disappear below depths of 100 m (Fernandez et al., 2023).

The local geological context of deformed, metamorphosed, fractured, folded and faulted, fine- to medium-grained siltstone and sandstone (Hodgkinson Formation) is characteristic of a fractured aquifer system. Groundwater storage, therefore, is most likely within open cavities within the indurated, low permeability, meta-siltstone and -sandstone host rock, and associated with joints and fractures developed through multiple geological deformation events. Moderate to highly weathered near-surface rocks are potential additional groundwater repositories.

2.1.10 Soils and Land Productivity

Detailed soil and geology information has been provided within the Groundwater and Surface Water Report completed for the project (C&R, 2024) and Soil Assessment Report (C&R, 2025). Topsoils within the project site are clayey loam with a finer-textured, light to medium clay subsoil, and consist of brown dermosols, red dermosols, and historically disturbed areas (anthroposols). Topsoil sampling locations and site soil mapping is provided in Figure 9.

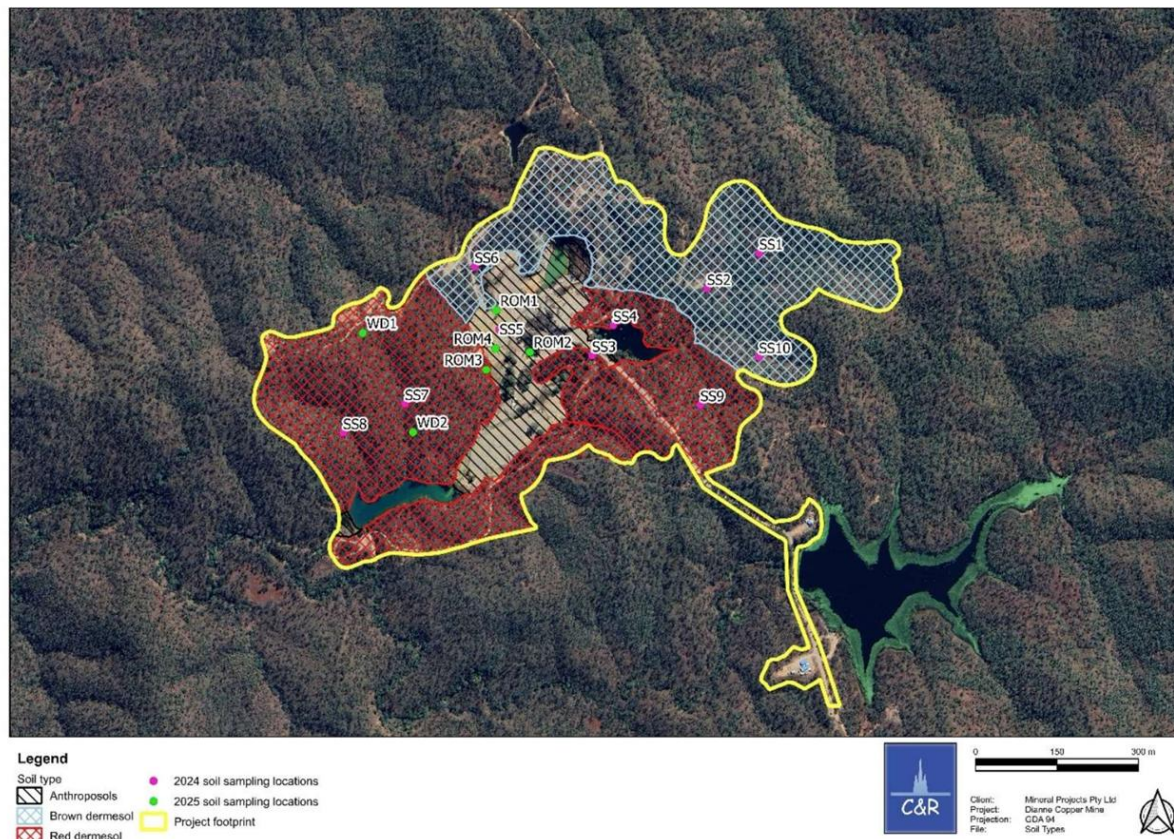


Figure 9: Soil Types and Soil Sampling Locations (C&R, 2025)

The primary soil type on the site is tenosol (Fu25), generally found in low, hilly to hilly lands closely dissected by numerous, small streams. Undulating areas occur marginally and there are some areas of high hills with very steep slopes and common rock outcrops. The dominant soils are very shallow, gravelly, bleached loams (Um2.12), with lesser areas of similar loams (Um2.21, Um4.1, and Um4.21). Smaller areas of similar, sandy loams (such as Uc2 and Uc4) occur locally. Associated throughout the unit are areas of shallow, gravelly duplex soils (namely Dy3.41, Dr2.41, and Dr3.41), particularly on lesser slopes. In some valley floors, there are small areas of Dy3.43 soils. Small areas of basic volcanic rocks in the unit have deeper, red, friable clays (i.e. Uf6.31). At the northern margin of the project site, the unit may be capped by small sandstone mesas of unit Ca35.

Topsoil and subsoil will be stripped to a minimum of 200 mm depth for all new disturbance for the project. Generally, the soils within the project site have light to medium clay B horizons. In these areas, and where necessary (e.g. to get sufficient capping material for the overburden stockpile rehabilitation), additional stripping of clay material will be undertaken to 500 mm depth. It is anticipated that these areas will total 12.8 ha (approximately 38,000 m³) and focus on the gully areas of the Overburden Stockpile and Raw Water Dam. As a conservative measure, these areas of additional clay subsoils have not been included in the preliminary soil material balance (Table 3).

The stripped material will be placed in topsoil stockpiles, with a maximum height of 2 m, and seeded if left for greater than 12 months. The haul distance across the entire project disturbance area is less than 1,000 m, and between topsoil stripping areas and topsoil stockpiles it is an average of 230 m, ranging from 200 m between the overburden stockpile

and the adjacent topsoil stockpile, 185 m from the pit to the adjacent topsoil stockpile, and 300 m from the processing area to the nearest topsoil stockpile. Conversely, the haul distance between topsoil stockpiles and rehabilitation areas is an average of 230 m. The topsoil material will be used in rehabilitation, with subsoil to be used for capping of the permanent overburden stockpiles and backfilled pit as required (store and release with vegetation).

Generally, topsoils used for rehabilitation will have the following characteristics, based on topsoil characteristics across the project site:

- pH range 5.5 to 9
- Salinity <1,000 us/cm EC
- Organic matter >1.5%
- Copper <270 mg/kg (per sediment monitoring requirements in the EA)

An Appropriately Qualified Person (AQP) will assess the suitability of topsoil and outline any required ameliorants prior to use in rehabilitation. Ameliorants that may be used include gypsum and/or vegetation matter.

The material balance is provided in Table 3, with the following assumptions:

- All disturbance areas will be stripped to 200 mm.
- Existing disturbance areas are assumed to have no topsoil available
- Other Disturbance Areas will have minor disturbance, so for a conservative material balance it is assumed no topsoil stripping. However, any disturbance occurring in this area will be stripped of topsoil at a minimum of 200 mm to be used for rehabilitation.
- The Raw Water Dam 2 will remain post-mining.
- Topsoil will be placed at a minimum of 100 mm for rehabilitation.
- Overburden Stockpile will be rehabilitated with 500 mm cover.

The preliminary material balance shows that there is sufficient topsoil/subsoil for use in rehabilitation.

Table 3: Preliminary Soil Material Balance

Mine Feature Name	Topsoil Stripping Area (ha)	Stripped Topsoil (m³)	Stripped Subsoil (m³)	Topsoil Required for Rehabilitation (m³)
Pit	1.01	2,020	0	4840
Overburden Stockpile	4.70	9,400	3,600	23700
Release Dam	0	0	0	1260
Process Water Dam	1.19	2,380	0	1310
PLS Pond	0.13	260	0	130
ILS Pond	0.15	300	0	150
Raffinate Pond	0.09	180	0	90
Raw Water Dam 2	0	0	60,200	0
Processing Area	5.36	10,270	0	7020
Water Management Dams (Sediment Dams, Clean Water Dams)	4.86	9,720	0	4370

Mine Feature Name	Topsoil Stripping Area (ha)	Stripped Topsoil (m ³)	Stripped Subsoil (m ³)	Topsoil Required for Rehabilitation (m ³)
Topsoil Stockpiles	0	0	0	550
Infrastructure (including Roads)	0.17	340	0	840
Other Disturbance (including Buffer Areas)	0	0	0	0
Total	17.66	35,320	63,600	44,260

The soils within the project site are not overly susceptible to erosion based on physical and chemical properties observed. However, the following erosion and sediment controls will be in place for topsoil stripping:

- Erosion and sediment controls, per the Water Management Plan, such as silt fences, clean water diversion drains, etc. will be installed prior to the commencement of disturbance.
- Clearing and topsoil stripping will be limited during and immediately after rainfall.
- Once stockpiled, erosion and sediment controls will be installed around topsoil stockpiles.
- Any topsoil stockpiles to be in place for greater than 12 months will be seeded as soon as practicable, with a seed mix in line with that used for rehabilitation.

2.1.11 Land Stability

There has been significant historical disturbance on site, from the mid 1800's including gold mining activities, copper exploration and copper mining, and extensive cattle grazing. At a regional level, the significant disturbance has resulted in pre-existing land degradation and moderate levels of erosion. At a site level, land stability is improving due to the rehabilitation and erosion and sediment control due to efforts being undertaken including reprofiling and shaping, revegetation, and for any new disturbance activities the installation of silt fences and check drains.

2.1.12 Pre-Mining Land Use

Other than previously described copper mine development the pre-mining land use for the site was alluvial gold mining and cattle grazing.

The existing land use within the mining leases and surrounding areas is cattle grazing, with a number of mining tenements overlaying the grazing properties. The area remains subject to formal exploration and unauthorised exploration and mining activities, primarily alluvial gold and tin and copper.

2.1.13 Ecology – Vegetation Communities and Fauna Presence

The region has been heavily impacted for over 120 years, with significant areas cleared and disturbed historically for gold mining including alluvial and instream mining; and cattle grazing; and is subject to frequent uncontrolled fire. Approximately 30% of the proposed disturbance area has previously been cleared for historic mining operations and exploration activities, with much of the remainder historically disturbed for cattle grazing.

The vegetation within the project site is listed as Least Concern Regional Ecosystems and consists of Eucalypt low, open woodlands. No threatened ecological communities or flora species have been identified. The project has a maximum disturbance area of 50 ha, which includes 16.1 ha of non-remnant (i.e. cleared), 33.1 ha of mapped remnant, 0.3 ha of regrowth vegetation, and 0.5 ha of open water (i.e. existing dams).

A detailed flora and fauna survey was completed in 2023 and 2024 by C&R Consulting, which outlined ecological values of the mining leases (C&R, 2024). Remaining vegetation on site consists of least concern vegetation class (Figure 10) under the *Vegetation Management Act 1999*, namely:

- Regional Ecosystem (RE) 9/11/3a (60%) - Woodland to low, open woodland of *Eucalyptus cullenii* (Cullen's ironbark) +/- *Corymbia clarksoniana* (Clarkson's bloodwood) +/- *Erythrophleum chlorostachys* (Cooktown ironwood) +/- *C. erythrophloia* (red bloodwood) +/- *C. dallachiana* (Dallachy's gum)
- RE 9/11/3b (20%) - Low, open woodland to woodland of *Eucalyptus cullenii* (Cullen's ironbark) +/- *Corymbia hylandii* (Hyland's bloodwood) +/- *C. clarksoniana* (Clarkson's bloodwood)
- RE 9/11/25 (15%) - Low woodland to low, open woodland of *Eucalyptus tardecidens* (box) or *E. chlorophylla* +/- *Corymbia* spp. +/- *E. cullenii* (Cullen's ironbark) +/- *Melaleuca* spp.
- RE 9/11/26a (5%) - Woodland of *Eucalyptus leptophleba* and *E. platyphylla* (poplar gum) +/- *Corymbia tessellaris* (Moreton Bay ash)

No threatened flora species are known to occur within the study area and field surveys have not identified any threatened flora species.

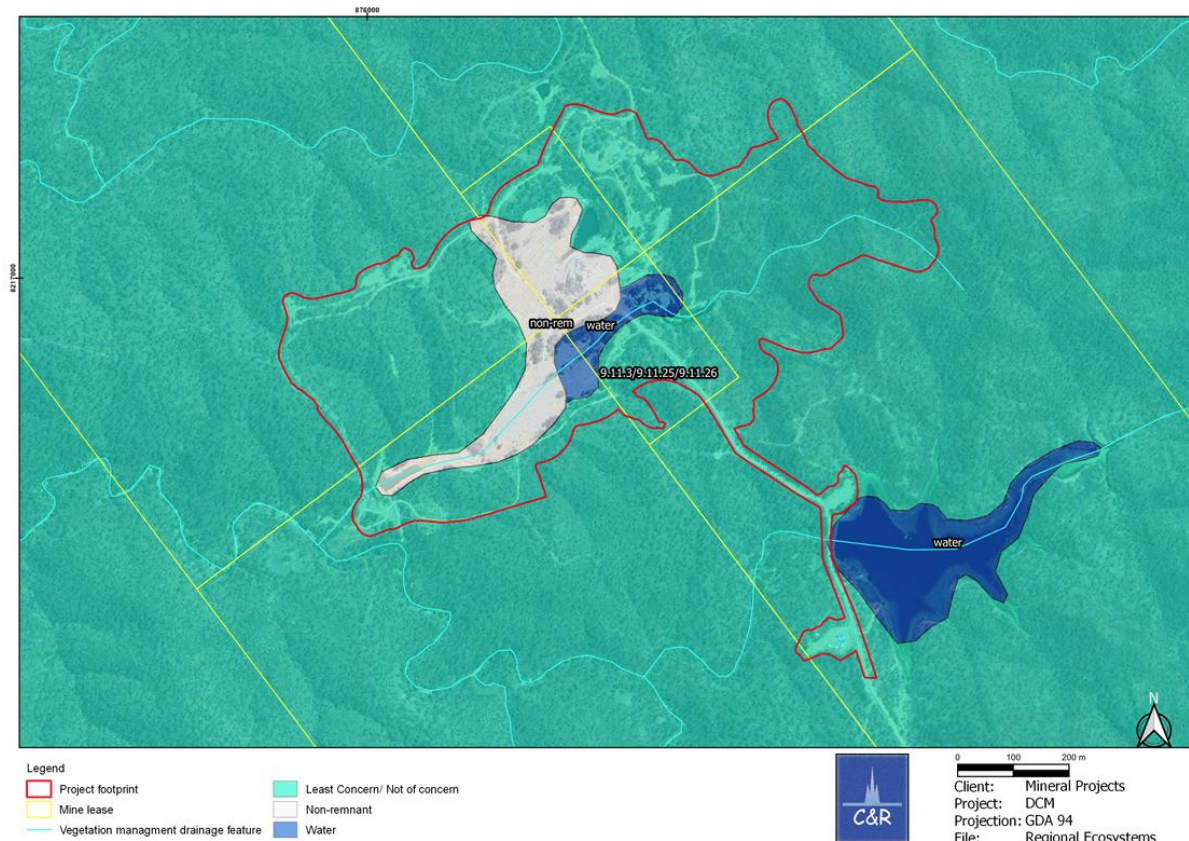


Figure 10: Regional Ecosystems (C&R, 2024).

There are no listed world heritage properties, national heritage places, wetlands of international importance, or listed threatened ecological communities present on site. An EPBC Referral determined that the project is Not a Controlled Action in relation to Matters of National Environmental Significance on 18 June 2025.

A number of threatened fauna species or their habitat have been identified as potentially occurring within the project site during detailed site surveys. Site specific assessments were completed for the following species known or expected to occur within the project site, with no significant, residual impacts anticipated and no offsets required to be in place:

- Gouldian Finch
- Buff-Breasted Button-Quail
- Australian Painted Snipe
- White-Throated Needletail
- Mertens' Water Monitor
- Northern Quoll
- Large-Eared Horseshoe Bat

Only one species was recorded during surveys, Mertens' Water Monitor.

The project has been designed to reduce the total disturbance footprint as much as possible, in addition to being designed for closure to reduce impacts as much as possible. Mitigation measures in place will include:

- Minimising disturbance footprint and utilise existing historical disturbance as much as practical
- Progressive disturbance and progressive rehabilitation
- Fauna spotter catcher to be present for all vegetation clearing
- Stockpiling of fallen logs and trees with hollows for use in rehabilitation
- The freshwater dams will be remediated as required and kept post-mining
- Weed and pest control management measures will be in place for construction and operations
- Species specific mitigation measures are in place.

Given the nature of the project in the immediate vicinity of an existing disturbed site and in the context of the broader region, the risks to the identified terrestrial ecology values from most of the identified hazards can be appropriately mitigated within the design phase of the project through the adoption of current best-practice measures. Therefore, it is concluded that there is unlikely to be significant impacts to threatened or migratory species, their habitat, or connectivity from the project.

2.1.14 Air Quality and Greenhouse Gas

The project will be operated in a way that will protect environmental values in relation to air quality. Due to the remote nature of the site, short duration of the project, and small scale of the project, no air quality impacts are expected at any sensitive receptor or environmental values (e.g. fauna) due to the project.

The existing air quality environmental values for the project are limited to flora and fauna, due to the remote nature of the site. Air quality emissions from the project are anticipated to be minor in nature, with a number of mitigation measures in place, and be limited to the following:

- Dust from vehicle movement and clearing
- Greenhouse gas emissions
- Dust from blasts

The project will be operated in a way that will protect environmental values of the acoustic environment, in line with *Guideline: Application requirements for activities with air impacts*.

In addition, the following mitigation measures will be in place to reduce noise and vibration impacts:

- Dust suppression will be utilised on roads when excessive dust is being produced e.g. water carts
- Speed limits will be in place on site of 50 km/hr
- Blasting will be undertaken during appropriate weather conditions to limit distribution of fumes and dust
- Use of heavy equipment operating will be limited at night (between the hours of 10 pm and 6 am)
- All equipment will be operated in accordance with their operating manual to protect the health and safety of employees
- Disturbance will be progressive

- Progressive rehabilitation will be undertaken
- Any complaints in relation to air quality will be investigated as soon as practicable
- The project is in line with both State and Commonwealth renewable energy transition targets, in particular the *critical minerals strategy*.

The project will be operated in a way that will limit Greenhouse Gas Emissions, as forecasted below (based on the current forecast diesel usage):

Item	Description	Fuel Burn (l/hr)	Forecast Usage (hrs)	Total Forecast Fuel (kl)	Total Forecast GHG (t CO ₂)
1	40t Artic. Dump Truck	27.9	27,225	760	1,930
2	90t Rigid Dump Truck	75	4,675	351	892
2	D10 Bulldozer	69.8	3,985	278	706
4	30t Excavator	20.5	1,130	23	58
5	45t Excavator	38.1	13,661	520	1,321
7	180t Excavator	165	1,430	236	599
8	14' grader	25.8	4,550	117	297
10	30kL Watercart	32.6	4,753	155	394
11	Roller compactor	23.5	1,851	43	109
	Crushing plant	82	8,015	657	1,669
21	Light vehicles	11	9,360	103	262
22	Generator (large)	110	32,955	3,625	9,208
23	Generator (medium)	24	48,920	1,174	2,982
	TOTALS			8,042	20,427

2.1.15 Noise

The existing noise environment includes roads, alluvial gold mining, and cattle grazing activities. Within the site, there is also background noise related to exploration and rehabilitation activities.

There are no permanent sensitive receptors or sensitive places in the vicinity of the project site. The closest public road is located approximately 20 km south of the project.

There are a number of small, sporadic alluvial gold mining areas approximately 10 km from the project site. No adverse noise impacts are expected at these locations.

The existing noise environmental values for the project are limited to fauna, due to the remote nature of the site. Noise emissions from the project are anticipated to be minor in nature, with a number of mitigation measures in place, and be limited to the following:

- Noise from machinery
- Blasts

The project will be operated in a way that will protect environmental values of the acoustic environment, in line with *Guideline: Application requirements for activities with noise impacts*. Due to the remote nature of the site, short duration of the project, and limited nighttime activities, no noise or vibration impacts are expected at any sensitive receptor or environmental values (e.g. fauna) or cultural values due to the project. Sound from the project is not anticipated to be audible at any sensitive receptor.

It is anticipated that there will be approximately 20 blasts required across the life of the project.

In addition, the following mitigation measures will be in place to manage and reduce noise and vibration impacts so that adverse effects on environmental values, including health and wellbeing and sensitive ecosystems, are prevented or minimised:

- Blasting will be limited to between the hours of Monday to Friday 6 am to 6 pm
- Use of heavy equipment operating will be limited at night (between the hours of 10 pm and 6 am)
- All equipment will be operated in accordance with their operating manual to protect the health and safety of employees
- Disturbance will be progressive
- Progressive rehabilitation will be undertaken
- Any complaints in relation to noise or vibration will be investigated as soon as practicable

2.1.16 Existing Rehabilitation

As part of the current care and maintenance operations, all infrastructure for mining and processing was sold and removed from the site in the 1980s when operations ceased. Remaining infrastructure is limited to access roads, minor remaining concrete pads, and the mine water management system including Raw Water Dams 1 and 2.

Current disturbance at the site is minimal, totalling 14.1 ha across all mining leases. Rehabilitation related activities to date have focused on water management, in particular the construction and maintenance of infrastructure to isolate the waste rock stockpile from overland flow and manage mine affected water (Figure 11). A total of 3.1 ha of rehabilitation has been undertaken to date (i.e. >20% of the existing disturbance area has been rehabilitated), with the majority being undertaken between 2021 and 2024 as described in more detail below. Additionally, all exploration areas completed to date have been rehabilitated in accordance with Environmental Authority Condition A16 and Eligibility criteria and standard conditions for exploration and mineral development projects“ (ESR/2016/1985).

Since this time, all non-mining waste (e.g. scrap metal and general rubbish) has been cleaned up and removed from site to appropriately licenced facilities. Areas of rehabilitation include:

- An area downstream of the Settling Dam has been recontoured and seeded.
- An old access road to the east of the pit has been reshaped, ripped and seeded (8 kg/ha)
- Erosion and sediment controls have been installed throughout the site.

There is one existing waste rock stockpile on site, totalling 0.98 ha. The existing waste rock stockpile will be reprocessed as part of the project. The existing waste rock stockpile has been reprofiled and compacted to prevent ponding and reduce water infiltration, including the installation of contour drains to ensure run off flows into the Settling Dam. A drainage channel has been installed north of the waste rock stockpile to divert water around the area and directly into the Settling Dam. An additional bund has been installed upstream of the waste rock stockpile, to divert all overland flow (clean water) around disturbance areas.

Rehabilitation generally occurs over the dry seasons due to safety and access.



Figure 11: Waste Rock Stockpile (May 2021)

No rehabilitation areas to date have been applied for or approved as progressively certified under the EP Act.

The existing rehabilitation sites and reference sites will be disturbed as part of the project, and a new rehabilitation monitoring system will be put in place.

Significant effort has been made for the project to plan for closure, including progressive rehabilitation. As discussed in Sections 2.3 and 2.4, the project will be rehabilitated to current standards, including backfilling of the pit.

2.2 Community Consultation

2.2.1 *Community Consultation Register*

Consultation on rehabilitation and post mining land use has been undertaken to date with relevant stakeholders for the project as outlined in Table 4, including:

- The landowner
- Surrounding landowners
- Traditional Owners
- The Cook Shire Council and Mareeba Shire Council
- DETSI
- Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development
- Commonwealth Department of Climate Change, Energy, the Environment and Water

Table 4 outlines community consultation undertaken in relation to the project, with historical consultation not included.

Due to the remoteness of the site, there are no towns or additional sensitive receptors within the vicinity of the mine that may be impacted by mining activities or rehabilitation outcomes.

The landowner and Traditional Owner representatives Gummi Junga Aboriginal Corporation (GJAC) has been involved with the final land use design and has provided written agreement on post-mining land use (namely to retain valuable infrastructure and to rehabilitate to grazing land to continue support for surrounding agricultural practices).

Table 4: Community Consultation Register

Consultation Date	Community Member	Consultation Type	Information Provided	Issues Raised	How Issues Were Considered	Outcomes/Decisions and Commitments
Feb-20	Cook Shire Council - Linda Cardew and Robyn Holmes	Meeting and workshop in Cooktown	Outline of intended activities on site, including traffic use and frequency of activity along public access roads.	Nil. Request by Council to notify of any recommencement of permanent operations.	Agreed.	Council to be notified of any recommencement of operations.
Jun-20	GJAC – Barb Rose	Meeting and site visit	Site visit to show extent of works completed on site and inspection by GJAC	Recognition from GJAC about the significant positive impact made by Mineral Projects since commencing. Barb stated we were the first and only group who had lived up to commitments made in relation to site work and all commercial payments.	NA	Nil
Aug-20	GJAC – Lenore Casey	Meeting	Presentations made on work achievements completed and outline of future work scope.	Nil	NA	Nil
Apr-21 to Aug-21	GJAC – Leeann Latu and Stephen Wallace	Meeting	Presentations provided on site works completed and improvements completed.	Nil	NA	Agreement reached to include GJAC on any work involving new disturbance of any areas across the ML's.
Various – 2021 and 2022	DETSI	Emails, meetings and phone discussion	Draft PRCP information	PRCP	All comments are being updated in the PRCP for submission	Update PRCP prior to submission, final PRCP approval
Sept-22	GJAC	Meeting	Ongoing site updates with a focus on exploration activities	Nil	NA	GJAC involvement in ongoing exploration clearance works
Sept-23	DETSI	On site inspection	Overview of current activities, brief update on proposed project	Focus on current operations		
Jul-24	DETSI	Online meeting	Overview of EA amendment and updates to	Per email/DETSI correspondence		

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Consultation Date	Community Member	Consultation Type	Information Provided	Issues Raised	How Issues Were Considered	Outcomes/Decisions and Commitments
			PRCP			
Aug-24	DETSI	On site inspection	Overview of current activities and update on proposed project	Agree the project will provide positive environmental outcome, DETSI focus on remediation of Settling Dams	On going discussions on remediation plan and current options	Ongoing per discussions with DETSI
Jul-24	Cook Shire Council – Mayor Holmes, CEO Joiner and full Council	Meeting	Presentation to full Council membership on the details of the mine recommencement	Nil. Request to maintain ongoing liaison with Manager Engineering Infrastructure for any Whites Creek Road upgrade requirements	Strong support for regional activity and potential employment opportunities	Inform Council again once timetable for planned operations commencement is known
Jul 24	GJAC – President Anthony Rosendale	Meeting	Presentation and detailed outline of mine recommencement, duration of work and scale of upgrade activities	Employment opportunities and Bonny Glen station assistance in proximity to mine (fencing, fire breaks, access roads)	Strong support for mine recommencement and the eventual planned rehabilitation of the mine area	Ongoing GJAC engagement in the lead up to operations commencement.
Jul 24, Feb 25	Palmer River Roadhouse – Brett Moylan and Kierstan Simon (Owners)	Meetings and phone discussions	Presentation and detailed outline of mine recommencement, duration of work and scale of upgrade activities, and commencement timeframes	Potential increase of new business generated from mine reopening, potential catering/employment interest.	Discussed the type and nature of operations. Brett and Kierstan have worked in the CQ coal industry previously.	Ongoing engagement in the lead up to operations commencement.
Feb 24, Mar 24, Apr 24, May 24, Jun 24, Jul 24, Sep 24, Nov 24, Feb 25, Mar 25, Jun 25	WYAC – Brad Grogan, Floyd, DJ Williams, Danny Le Chu	Meetings, Site Clearance, Ecology Surveys, phone discussions	Several ongoing meetings, presentations and workshop discussions relating to mine recommencement activities	Employment, training, skills development of younger GJAC community	Strong levels of interest in participating in both construction and future operations activities.	Maintain ongoing meetings to outline timetable of planned activities.
Jul 24, Nov 24, Mar 25	Mareeba Shire Council – Mayor	Meetings	Presentation and outline timetable of planned	Nil	Strong support for regional activity and potential	Inform Council again once timetable for planned

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Consultation Date	Community Member	Consultation Type	Information Provided	Issues Raised	How Issues Were Considered	Outcomes/Decisions and Commitments
	Toppin , CEO Franks, Councilor Graham		recommencement. Mareeba will be a prominent location for support services and mine employment.		employment opportunities	operations commencement is known
Apr 24, May 24, Jun 24, Aug 24, Jan 25, Jun 25, Aug 25	Palmerville Station – Darren Pearson (Western neighbouring station)	Online meeting and phone discussions	Presentation and detailed outline of mine recommencement, duration of work and scale of upgrade activities	Interest in potentially providing some accommodation and heavy earthmoving equipment to support the project	Understood capability of Palmerville and discussed timeframe and potential camp capacity/location	Maintain regular contact as construction and operations commence.
Jul 24	Maitland Downs Station – John and Tanya Ahlers (Eastern neighboring station)	Meeting	Presentation and detailed outline of mine recommencement, duration of work and scale of upgrade activities	Nil	Strong support for mine recommencement and activity into the region.	Occasional updates on progress once the operations commencement was imminent.
Sept 24 and Mar 25	Cook Shire Council - Manager Engineering Infrastructure	Phone discussion	Provide update on the project status	Nil	-	Ongoing discussions to provide project updates
Aug 24, Nov 24, Jan 25, Jul 25, Aug 25, Sept 25	DETSI	Meetings and formal correspondence	Ongoing discussions on the project and site activities	Ongoing discussions, focused on waste management and geochemistry, surface water and groundwater management, and rehabilitation.	Detailed review of all Information Request items	Update of PRCP and detail in Information Request response.
Nov 24, July 25, Aug 25	Bonny Glen Station (landowner) - Geoffrey Rosendale (CEO GJAC Board); Adam Mellers (Station Manager)	Phone discussions	Provide an update on the project status; discussions on the cattle operations on Bonny Glen	Need for coordination of musting and notification/access protocols when in proximity to mine site	-	Ongoing discussions
Feb 25, May 25, Jun 25	Commonwealth Department of Climate Change,	Meetings and formal correspondence	Detailed overview of the project and potential impacts to Commonwealth	Nil	Detailed EPBC Act referral completed and submitted for assessment.	Project determined Not a Controlled Action.

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Consultation Date	Community Member	Consultation Type	Information Provided	Issues Raised	How Issues Were Considered	Outcomes/Decisions and Commitments
	Energy, the Environment and Water		matters. Formal submission of an EPBC Act referral, with a decision confirmed of Not a Controlled Action			
Aug 25	Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development	Meeting	Detailed overview of the project	Nil	-	Generally supportive of the project.

**All references to GJAC refer to consultation with GJAC as both the landowner and Traditional Owner representatives*

**All references to DETSI also refer to previous versions of the Department*

2.2.2 Community Consultation Plan

Ongoing consultation will continue with the community focused on updates on mining and rehabilitation including employment and contracting opportunities. The objective for consultation is to bring the community on the rehabilitation journey with the site, and to provide updates in the form of discussions, site visits, and presentations as required. Consultation with relevant stakeholders will continue throughout the life of the mine and the proposed community consultation plan is outlined in Table 5.

Table 5: Community Consultation Plan

Stakeholder	Consultation Objective	Consultation Type	Consultation Frequency	Information to be Provided	How Feedback will be Considered
Cook Shire Council	Ongoing updates as local council	Information package, in person discussion and/or site visit	Every 2 years	Update on progress and forward plan	Considered against approvals and update rehabilitation plans if suitable and compliant
GJAC (landowner and Traditional Owners)	Ongoing updates and agreement as landowner and Traditional Owners	Information package, in person discussion and/or site visit	Every year	Update on progress and forward plan	Considered against approvals and update rehabilitation plans if suitable and compliant
DETSI	Approvals and compliance for any changes to rehabilitation	Provision of any draft updates for discussion prior to finalisation	During any update to the PRCP, or proposed EA amendment	Provision of any draft updates for discussion prior to finalisation	All feedback to be considered in final submissions of any PRCP updates

2.3 Post Mining Land Use

The post mining land uses for the Dianne Copper Mine have been assessed against pre-mining land uses, the long-term landowner objectives for the site post-mining, rehabilitation planning and site and regional context. Post mining land uses include cattle grazing, native ecosystem, and infrastructure (freshwater dams and access roads). As per the EA, the site will:

- Be geo-technically and geo-chemically stable with no subsidence or erosion gullies;
- Have established groundcover to ensure erosion is minimised;
- Have established vegetation of floristic species composition analogue background data and which are not weed species;
- Maintenance requirements for rehabilitated land is no greater than that required for the land prior to its disturbance caused by carrying out the mining activities;
- Be safe for humans and wildlife.

Detail of the post-mining land uses (PMLUs) and non-use management areas (NUMAs) are provided in the following sections, and detailed milestones provided in Appendix 1 – PRCP Schedule.

The project is anticipated to have an overall positive environmental impact for the site, namely by bringing the site to contemporary environmental management and rehabilitation, and through rehabilitation of historical site issues.

2.3.1 PMLUs

Rehabilitation will be undertaken progressively on site.

The post mining land uses (PMLU) for the Dianne Copper Mine have been determined from detailed final land use design based on EA requirements, best practice, landowner expectations, previous land uses and expert advice.

There are three PMLUs for the site, namely:

- Cattle grazing.
 - The majority of the mining leases will return to grazing to integrate with surrounding land use and pre-mining land use, and per existing consultation with the landowner. The land was used for cattle grazing pre-mining.
 - Grazing will be re-established to match surrounding areas and include revegetation with native and pasture grasses, and open woodland native tree species.
 - Land use will provide beneficial socioeconomic environmental outcomes of ongoing environmental management, and economic and employment opportunities for the remote region through continued operation of cattle grazing properties.
 - Land will be sustainable, safe and structurally stable, with no environmental harm being caused.
 - Compliance with Schedule 8A of the *Environmental Protection Regulation 2019* (EP Regulations) performance outcomes for post-mining land uses having regard to the use of the land in the surrounding region, and being consistent with the land use pre-mining.
- Infrastructure (i.e. water management structures and access roads).
 - Raw Water Dam to remain post mining per existing written agreement with landowner as important assets to grazing activities, with additional positive environmental outcomes.
 - Main access roads / tracks to remain post mining per existing written agreement with landowner as important assets to grazing activities, that support access to this part of the cattle property for mustering and other land management in addition to providing both a fire break and access during fires. The project will provide upgrades to access roads and local council roads which will provide more consistent and safe access to the site.
 - Land use will provide a beneficial environmental outcome of valuable fauna habitat (i.e. permanent and semi-permanent water sources), and economic and employment opportunities for the remote region through continued

operation of cattle grazing properties, and is in line with Guideline: Grazing as a post-mining land use Implications for leading practice July 2024.

- Land will be sustainable, safe and structurally stable, with no environmental harm being caused.
- Native ecosystem
 - The overburden stockpile, backfilled pit area, and heap leach pads will be rehabilitated to native ecosystem post-mining. These areas will provide habitat for native fauna species and will integrate into the surrounding landscape similar to other areas where cattle grazing is restricted.
 - Generally, the landowner and Traditional Owners confirm their Country and Bonnie Glenn will remain focused on cattle grazing and access for Traditional Owners to go back on their Country. The existing areas of native ecosystem are consistent with cattle grazing vegetation types, and are anticipated to coexist with cattle grazing activities across the site post-mining.
 - Land will be sustainable, safe and structurally stable, with no environmental harm being caused.

As PMLU grazing is for remote, low density cattle numbers, per the existing landowner operations, PMLU grazing and PMLU native ecosystem both have the same rehabilitation methodology once areas are reshaped, as outlined in Table 6 and the PRCP Schedule. The notable difference in rehabilitation methodology is the post-mining inclusion of cattle or to exclude cattle, respectively. The rehabilitation methodology for both PMLU's have outcomes of the same vegetation types and environmental values post-mining.

The PMLUs and PMLU schedule meet regulatory constraints, and are consistent with:

- Community consultation (per Section 126C(1)(d) of the EP Act).
- Landowner and Traditional Owner aspirations, which is also consistent with the pre/post mining land use and surrounding land use.
- Environmental benefits, in particular habitat features of permanent to semipermanent water features and the retention of contiguous vegetation.
- Economic benefits of the PMLU relative to the rehabilitation costs and ongoing economic benefits and employment / social benefits for the landowner and community.
- Local and regional land use.
- Physical constraints, in particular the remoteness of the site.
- Retention of important infrastructure including roads and raw water dams.
- Best practice rehabilitation methods for disturbed areas including backfilling of the pit void and portal, with no final voids.
- Alignment with the potential PMLUs in the DETSI *Guideline: Progressive rehabilitation and closure plans (ESR/2019/4964)*.
- State and Commonwealth government strategies to increase economic and employment growth in Northern Australia; and strategies to support Indigenous owned and operated business and employment opportunities, as the landowner and grazier are the Traditional Owners of the land (per Section 126C(1)(d) of the EP Act). These strategies include:
 - Cook Shire Council Planning Scheme
 - Northern Australia Infrastructure Facility

- Northern Australia Development Program
- Minister for Northern Australia - 2020 Annual Statement to Parliament
- Trade and Investment Queensland investment opportunities
- Our North, Our Future: White Paper on Developing Northern Australia (2015)
- Green Paper on Developing Northern Australia (2014)

There are limited other alternative PMLU options due to the remoteness of the site.

At the completion of rehabilitation, the site will be geotechnically and geochemically stable, safe, and non-polluting. In addition to the remoteness of the site, there are not anticipated to be any additional statutory constraints to prevent inappropriate land use at relinquishment.

2.3.1.1 PMLU Grazing

Low intensity cattle grazing as a final land use supports the surrounding land use and landowner needs to continue cattle grazing across the property and will support the post mining land use of grazing. PMLU grazing covers all mining leases outside of other minor PMLU areas (Figure 12). The grazing PMLU will create a stable landform post mining, through the rehabilitation of disturbed areas and rehabilitation of all mining operations that are not beneficial post mining (e.g. filling in of the open cut pit, etc.). This PMLU aligns with the rehabilitation milestones within the PRCP schedule.

The PMLU grazing rehabilitation vegetation species used will be consistent with the remainder of the site and surrounding properties, namely Eucalyptus woodlands with native grass species on undulating terrain and hills.

A Land Suitability Assessment (LSA) will be completed prior to handover, however it is anticipated that the site will be LSA Class 2 or 3, suitable for sustainable grazing (low stock density).

The completion criteria to measure the successful achievement of PMLU grazing are outlined in Table 6: Rehabilitation Milestones.

2.3.1.2 PMLU Infrastructure

By retaining access roads and raw water dams post mining will assist in post mining economic and employment opportunities for the grazing property, whilst creating a stable landform that supports rehabilitation milestones. These access roads and raw water dams are in good condition and are able to be maintained by the landowner post mining. PMLU infrastructure covers all mining leases (Figure 12).

Raw Water Dam 1 currently sits outside of the mine and spills naturally. There are no chances to the dam in relation to this for the project. Any spills from the dam bypass the project disturbance footprint directly to a tributary of Gum Creek. Raw Water Dam 1 sits outside of the project disturbance footprint and will not be negatively impacted by the project. The catchment does not include any project disturbance footprint. In addition, any water pumped into the dam (as a contingency only in high rainfall scenarios) will only include clean water. Raw Water Dam 1 is to remain post mining per existing written agreement with landowner as an important asset to grazing activities, as it is currently being used.

The PMLU infrastructure will be utilised to maintain access into this remote region for grazing activities as essential management infrastructure for the grazing property owners whilst also supporting environmental outcomes such as fire control by maintaining access to this part of the property. The water bodies also provide habitat for fauna species, in particular during the dry season as permanent body/bodies of water. The completion criteria are limited to ensuring the infrastructure is safe and stable prior to handover.

The access roads and raw water dams will remain post-mining per an existing written agreement with the landowner, with the landowner taking over ongoing low input maintenance requirements consisting of road maintenance and F inspections of the raw water dams (as the dams have been assessed as not being regulated structures). Evidence of the written agreement with the landowner is provided separately to the Department of Environment and Science due to its commercial in confidence nature.

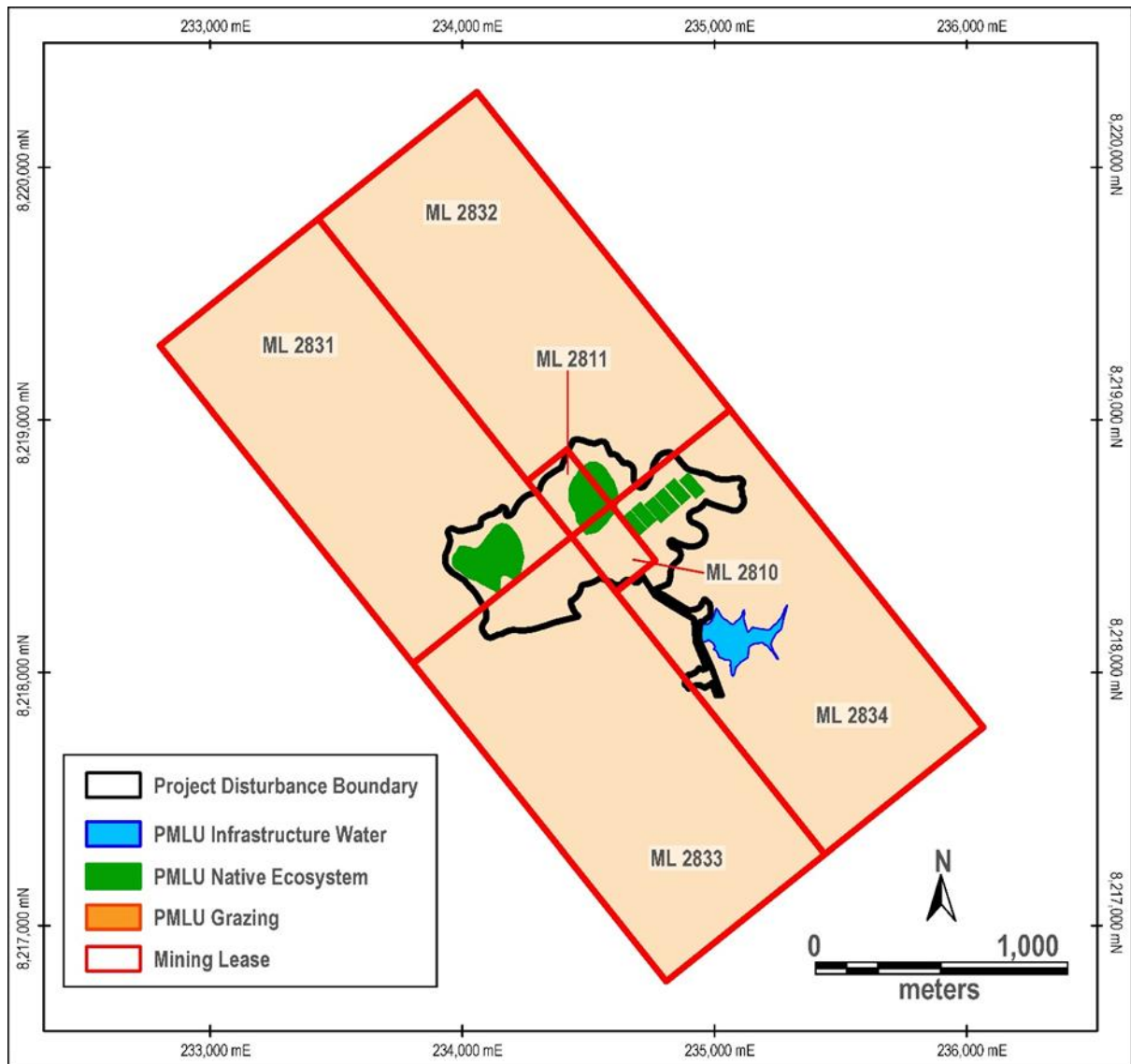
2.3.1.3 PMLU Native Ecosystem

Native ecosystem as a final land use supports fauna habitat and connectivity of the region and is conducive to surrounding land uses of grazing. PMLU native ecosystem falls across all mining leases (Figure 12). The native ecosystem PMLU will support the creation of a stable landform post mining in areas typically more prone to erosion, namely the overburden stockpile, heap leach pads, and backfilled pit. These areas will be rehabilitated per the detailed final landform and cover design (Appendix 2), and then revegetated to match the surrounding vegetation. Larger trees will not be included in the seed mix in some areas, to reduce the possibility for impacts to the cover design system. This PMLU aligns with the rehabilitation milestones within the PRCP schedule.

The PMLU native ecosystem vegetation will be consistent with the remainder of the site and surrounding properties, namely Eucalyptus woodlands with native grass species on undulating terrain and hills. These areas, in addition to similar vegetation in PMLU grazing areas, will reinstate the site connectivity with surrounding areas. It is anticipated that the land will be returned to the historic native ecosystem (i.e. the same vegetation types / Regional Ecosystems as pre-mining) per the *Exploring biophysical limitations and post-mining native ecosystem rehabilitation outcomes in Queensland* (CS Spain et al. 2022) and *Native ecosystem rehabilitation in Queensland Implications for leading practice* (QMRC, 2023). PMLU native ecosystem will form approximately 14.6 ha, or 29% of the total disturbance area.

A geotechnical stability assessment will be completed prior to handover to ensure long term stability of these areas. In addition, a landscape function analysis and ecosystem function analysis will be completed prior to handover, with the native ecosystem baseline/reference being well known per recent detailed ecology surveys (C&R, 2024).

The completion criteria to measure the successful achievement of all PMLUs are outlined in Table 6: Rehabilitation Milestones.



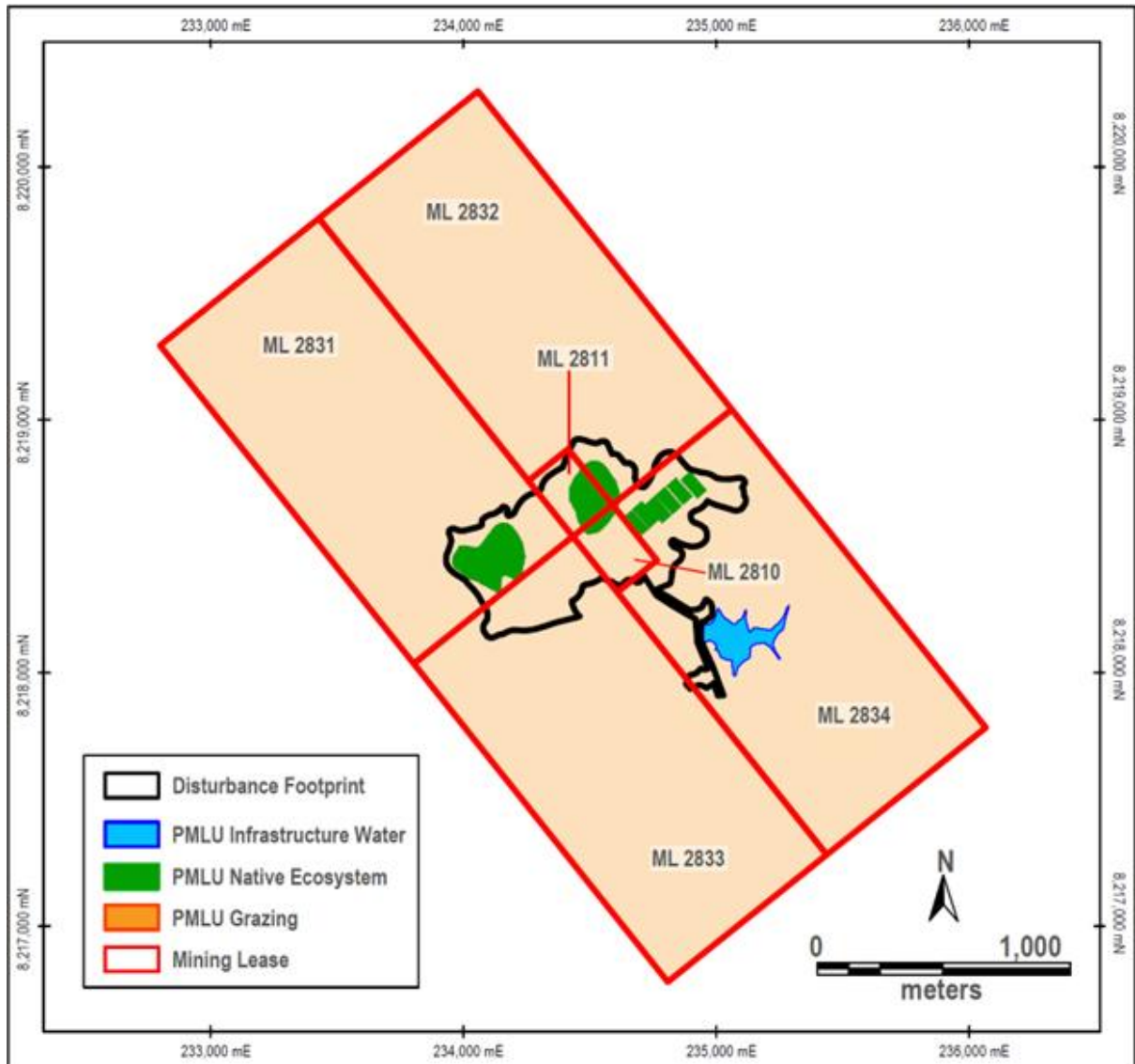


Figure 12: *Final Site Design*

2.3.2 NUMAs

There are no non-use management areas proposed for closure on any mining lease. As such, Schedule 8A of the EP Regulation Table 1 item 2 and 3; and Table 3 are complied with.

There will be no final voids.

2.4 Rehabilitation Management Methodology

The following sections outline the rehabilitation management methodology for the Dianne Copper Mine, including the PRCP rehabilitation schedule, rehabilitation plan, site rehabilitation characteristics and rehabilitation design in accordance with Section 126C(1)(e) and (i) of the EP Act.

2.4.1 PRCP Rehabilitation Schedule

The PRCP rehabilitation schedule for the site includes ML 2810, ML 2811, ML 2831, ML 2832, ML 2833 and ML 2834, which will all transition to PMLU grazing or native ecosystem post mining other than retained infrastructure.

Rehabilitated land will be managed to ensure it is relinquished in a stable condition and continue to be progressively completed over the life of the project. In order to achieve a stable final landform that meets rehabilitation objectives, rehabilitation milestones have been identified to track rehabilitation progress as part of the life of mine plan. These rehabilitation milestones are supported by milestone criteria and are suitable for rehabilitating the land to a stable condition in line with the PMLUs, and include sufficient time to complete rehabilitation in case of natural events e.g. fire. Rehabilitation milestones are also compliant with Schedule 8A of the EP Regulations Table 2, as follows:

- Milestone criteria is appropriate for achieving the PMLUs of the site
- Milestone criteria is appropriate for achieving each rehabilitation milestone
- Each milestone criteria facilitates subsequent milestone criteria
- The last milestone criteria demonstrates a sustainable, long-term PMLU

Rehabilitation milestones are also in line with SMART principles:

- Specific—it is clear what must be done
- Measurable—it must be possible to know when it has been achieved
- Achievable—it is capable of being achieved
- Reasonable/relevant—there is a clear connection between the milestone and the desired outcomes. The requirement is reasonable
- Time Specific—it is clear when the milestone will be completed.

Rehabilitation milestones are provided in the PRCP schedule (Appendix 1) and further detail is provided Table 6 below and Figure 12.

Disturbance due to exploration activities in areas not authorised to be mined will be rehabilitated in accordance with the provisions detailed in *Eligibility criteria and standard conditions for exploration and mineral development project* (ESR/2016/1985).

Mineral Projects Pty Ltd, as the EA holder, is responsible for completion of rehabilitation milestones.

Table 6: Rehabilitation Milestones, Objectives, Indicators and Justification

Rehabilitation milestone	Milestone criteria	Justification	Indicator	PMLU Outcome
RM 1 Decommissioning of infrastructure and other minor disturbance areas	- All services disconnected in coordination with service providers and all associated service infrastructure removed from site to an appropriate waste management facility. - All remaining buildings and infrastructure, concrete pads and laydown areas demolished, and materials removed from site to an appropriate waste management facility. - All pipelines and mine water management infrastructure, other than those to remain post mining, decommissioned and removed from site to an appropriate waste management facility. - All other rubbish removed from site to an appropriate waste management facility. - Area is ripped. - A minimum of 0.2 m of growth medium (topsoil, subsoil, or ameliorated material) is placed over the area. - The landform is stable and water-shedding.	No buildings and associated infrastructure are to remain as part of the PMLU (other than Raw Water Dam 1 and roads).	- Visual inspection following decommissioning and removal. - Ongoing rehabilitation monitoring	PMLU grazing
RM 2 Backfill of pit (void)	- Backfill the pit (void), which includes the previously closed off portal. - The final pit landform is geotechnically stable. - The final landform surface is water-shedding with no visible evidence of surface subsidence such as ponding water.	Pit (void) is backfilled so no final void remains.	- Visual inspection following completion. - Stability assessment is completed once backfill complete to confirm stability of final landform	PMLU native ecosystem

Rehabilitation milestone	Milestone criteria	Justification	Indicator	PMLU Outcome
			Ongoing rehabilitation monitoring	
RM 3 Rehabilitation of overburden stockpile	- Final landform will have a Factor of Safety of 1.5 or greater. - Cover system (store and release with vegetation) is installed per detailed design by an appropriately qualified person. - Area is ripped. - A minimum of 0.2 m of growth medium (topsoil, subsoil, or ameliorated material) is placed over the area. - The landform is stable and water-shedding.	- Final landform is stable and water-shedding - PAF or other contaminated material is encapsulated per engineering design. - Erosion is minor or less per the Erosion Classification Framework	- Visual inspection following completion. - Stability assessment is completed once backfill complete to confirm stability of final landform - Ongoing rehabilitation monitoring	PMLU native ecosystem
RM 4 Rehabilitation of processing areas	- Final landform will have a Factor of Safety of 1.5 or greater. - Cover system (store and release with vegetation) is installed per detailed design by an appropriately qualified person. - Area is ripped. - A minimum of 0.2 m of growth medium (topsoil, subsoil, or ameliorated material) is placed over the area. - The landform is stable and water-shedding.	- Final landform is stable and water-shedding - PAF or other contaminated material is encapsulated per engineering design. - Erosion is minor or less per the Erosion Classification Framework	- Visual inspection following completion. - Stability assessment is completed once backfill complete to confirm stability of final landform - Ongoing rehabilitation monitoring	PMLU native ecosystem
RM 5 Rehabilitation of mine water management structures (including Process Water Dam and Overflow Dams)	- All remaining water transferred out of structures to an appropriate place. - All contaminated material within the base of the water management structures (i.e. sediment) are removed and buried within the pit to a minimum depth of 10 m or removed to an appropriate facility.	- Final landform is stable and water-shedding - PAF and other contaminated material is encapsulated per engineering design. - Erosion is minor or less per the Erosion Classification Framework	- Visual inspection following completion. - Stability assessment is completed once backfill complete to confirm stability of final landform	PMLU grazing

Rehabilitation milestone	Milestone criteria	Justification	Indicator	PMLU Outcome
	- Dam walls are decommissioned and removed, with the landform to then be shaped to match surrounding landform. - Area is ripped. - A minimum of 0.2 m of growth medium (topsoil, subsoil, or ameliorated material) is placed over the area. - The landform is stable and water-shedding.		Ongoing rehabilitation monitoring	
RM 6 Remediation of contaminated land	- All contaminated material removed from the site unless onsite remediation is being undertaken. - Contaminated land investigation for all areas that are identified as containing a source of contamination undertaken by an appropriately qualified person. - A contaminated land investigation document has been prepared by an appropriately qualified person, containing a site suitability statement confirming that land is not contaminated and is suitable for the proposed PMLU.	- A contaminated land investigation completed by a suitably qualified person will be completed. - Ongoing water quality sampling will be completed until closure and confirm water quality is acceptable for handover.	- Results of the contaminated land investigation completed by a suitably qualified person. - Results of the water quality sampling completed by a suitably qualified person.	PMLU grazing PMLU native ecosystem PMLU infrastructure (water)
RM 7 Landform Development and Reshaping/Reprofiling and Revegetation	- All rehabilitation is engineered and shaped to achieve a stable landform. - All onsite earthworks completed. - All erosion and sediment control systems have been installed and are functioning correctly. - Topsoil will have the following suitability criteria: - pH range 5.5 to 9 - Salinity <1,000 us/cm EC - Organic matter >1.5% - Copper <270 mg/kg	- Erosion is minor or less per the Erosion Classification Framework - Drainage features are installed. - Landform development and reshaping requires minor earthworks. - Reinstatement of vegetation matching analogue background data and in consultation with the landowner.	- Regular visual inspections. - Ongoing rehabilitation monitoring	PMLU grazing PMLU native ecosystem PMLU infrastructure (water)

Rehabilitation milestone	Milestone criteria	Justification	Indicator	PMLU Outcome
	- Topsoil quality will be approved by an appropriately qualified person prior to use. - The volumes, source and placement of topsoil and subsoil used in landform reshaping and construction will be recorded for reporting requirements. - The cover surface will be ripped to a depth of 0.2 m on contour prior to seeding. - Seeding undertaken prior to forecasted rainfall during the wet season. - Seeding undertaken at a minimum rate of 8 kg/ha comprising a mix of pasture species and native species present in Regional Ecosystems (RE) RE 9.11.3a, 9.11.3b, 9.11.25 and 9.11.26a, and RE 9.3.14a in riparian areas including: - Eucalyptus and/or Corymbia open woodlands native tree, sub story and shrub species (including Melaleuca, Acacia and Petalostigma spp.) - Native grasses (including Heteropogan spp., <i>mnesithea rottboellioides</i>, <i>themeda triandra</i>, and Aristida spp.) - Pasture species (including ryegrass, Rhodes grass and bluegrass) - The seed mix specified will be revised for the overburden stockpile, heap leach pads, and pit to remove deep-rooting tree species.			

Rehabilitation milestone	Milestone criteria	Justification	Indicator	PMLU Outcome
RM 8 Establishment of target PMLU vegetation and stable landform PMLU achieved	- No erosion classed as 'Moderate' or 'Severe' is present (per Erosion Classification Framework in PRCP Table 6), and erosion rates do not exceed erosion rates observed in the analogue background data. - There is no evidence of salt accumulation on the surface of the overburden stockpile, heap leach pads, or pit. - Trees are, on average, at least 2 m tall (other than areas where tall tree species are removed from the seed mix). - Completion of a BioCondition Assessment per the BioCondition Assessment Manual (V2, February 2015, Queensland Herbarium), or latest version. - Surface water quality, sediment quality and groundwater quality complies with relevant quality objectives stated in the Environmental Authority EPML00881213. - Land is geotechnically stable and suitable for relevant PMLU. - Certification from an appropriately qualified person that the landform has achieved a factor of safety greater than 1.5. - Weed presence is no greater than analogue background data. - Vegetative groundcover, floristic composition and bare areas are statistically ($P < 0.05$) comparable to those in analogue background data.	This methodology has been widely applied to rehabilitated mine sites across Queensland.	- Rehabilitation monitoring sites are consistent with reference monitoring sites. - Ongoing rehabilitation monitoring	PMLU grazing PMLU native ecosystem PMLU infrastructure (water)

Rehabilitation milestone	Milestone criteria	Justification	Indicator	PMLU Outcome
	- Vegetation comprises of a of mix of native and pasture grasses; and open woodland native trees, sub storey and shrub species consistent with REs 9.11.3a, 9.11.3b, 9.11.25 and 9.11.26a, and RE 9.3.14a in riparian areas. - Areas of PMLU native ecosystem show evidence that fauna species identified pre-mining are present or habitat of these species is present such that the ecosystem will be sustained. Fauna species include but are not limited to: - Gouldian finch; - Buff-breasted button-quail; - Australian painted snipe; - White-throated needletail; - Mertens' water monitor; - Northern quoll; and - Large-eared horseshoe bat.			
RM 9 Retained infrastructure handover (Raw Water Dam 1 and roads)	- Water quality of retained dams meets ANZECC guidelines for cattle grazing. - Landowner sign off.	Landowner to become responsible for retained infrastructure at handover.	Retained infrastructure meets landholder requirements of stability and water quality.	PMLU infrastructure (water)

**Erosion Classification Framework*

Erosion classification	Minor	Moderate	Severe
No. of rills/gully	<15	15-30	31-50
Average depth (cm)	<10	10-30	30-60
Proportion of site affected by disturbance (%)	<1	1-5	>5

Source: after Neldner, V.J., Wilson, B.A., Dillewaard, H.A., Ryan, T.S., Butler, D.W., McDonald, W.J.F, Addicott, E.P. and Appelman, C.N. 2020, *Methodology for survey and mapping of regional ecosystems and vegetation communities in Queensland*. Version 5.1. Updated March 2020. Queensland Herbarium, Queensland Department of Environment and Science, Brisbane.

Progressive mine rehabilitation will commence as soon as practicable as land becomes available, and at a maximum will commence 12 months after land becomes available and in line with the risk assessment completed for the project, as per Section 126D(4) of the EP Act and Schedule 8A Table 2 of the EP Regulation. The first rehabilitation milestones in the PRCP will start as soon as practicable (and a maximum of 12 months) after than land becomes available. Progressive rehabilitation performance outcomes have been included in community consultation (Section 2.2) and formed part of the risk assessment (Section 2.8). Due to the nature of the mining activities and small disturbance footprint for the project, there are limited areas that become available for rehabilitation prior to the end of mine life.

There are no improvement areas as there are no proposed NUMAs.

2.4.2 Hydrogeology

The project will be operated in a way that protects the environmental values and minimises impacts to groundwater and any associated surface ecological systems. The installation of additional monitoring bores, combined with the engineered design of the lined leach pads, lined ponds, and associated drainage capture systems, provides a comprehensive approach to mitigating the risk of contaminant migration to surrounding surface and groundwater systems. A risk management strategy is in place to mitigate and reduce this risk, including:

- Engineering design in place to reduce potential impacts to groundwater, including sub-soil drainage and lining of the leaching area.
- Mine water management strategies will be in place to reduce potential impacts to groundwater quality.
- Monitoring programs are in place, including groundwater, surface water, and Receiving Environment Monitoring Program (REMP).
- Vegetation species used within rehabilitation are not dependent on permanent groundwater resources.
- There will be no direct release of contaminants to groundwater.

A groundwater monitoring program has been developed by suitably qualified and experienced hydrogeologists, with three groundwater monitoring bores were drilled on site in 2022:

- DCM_GW01 located north and upstream of all mining activities – total depth of 86.5 m, targeted Hodgkinson Formation – Fault
- DCM_GW03 located downstream of mining activities including mine water management structures – total depth of 58 m, targeted Hodgkinson Formation – Fracture
- DCM_GW04 located east and upstream of all mining activities – total depth of 83 m, targeted Hodgkinson Formation – Fracture

An additional seven bore locations will be completed for the project. These new bores will improve the ability to triangulate the project and provide sufficient spatial coverage to determine groundwater flow and water quality, and identify the source of any contamination. These bores will be drilled in two phases – GW05, GW06, and GW07 to be drilled prior to the commencement of construction, and GW08, GW09, GW10 and GW11 to be drilled post-construction (Figure 13). Figure 13 also shows the groundwater and surface water flow

pathways, and how each major infrastructure component will be captured within the monitoring program.

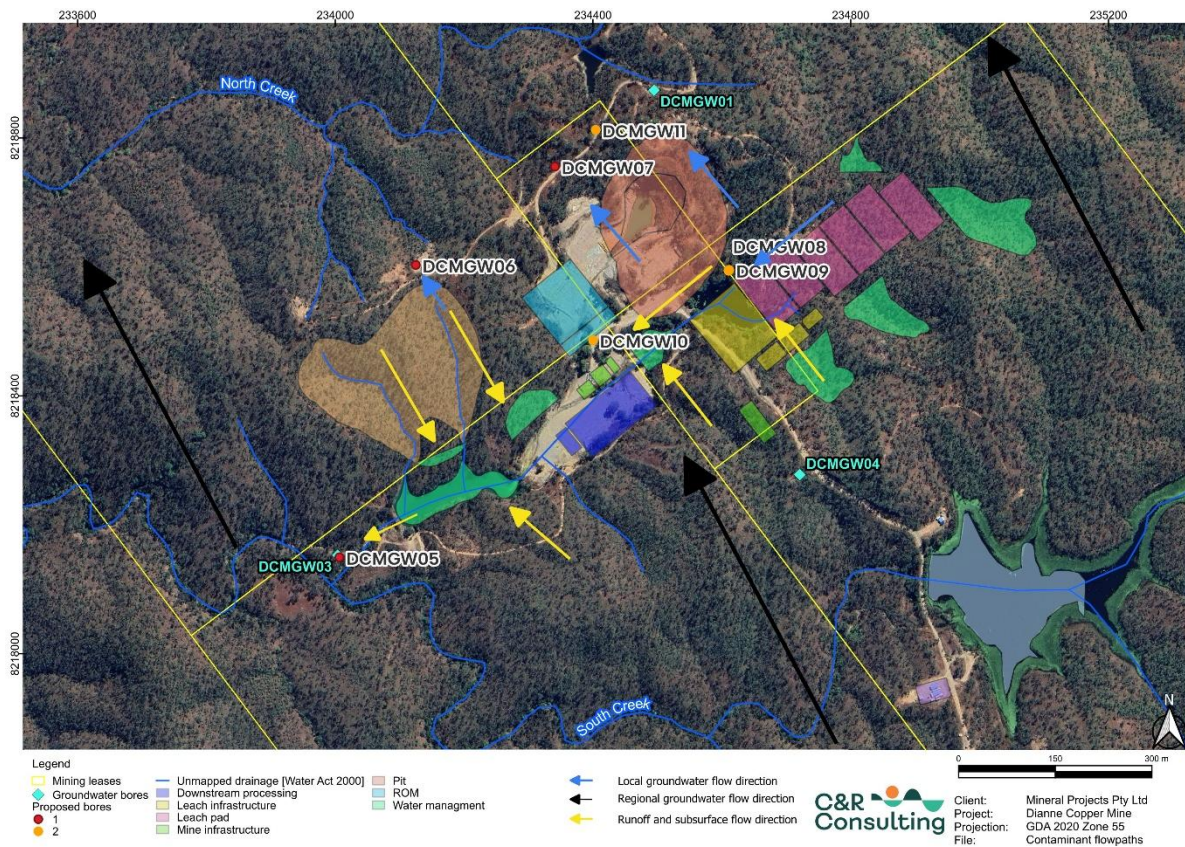


Figure 13: Existing and proposed groundwater bore locations and water pathways (C&R, 2025)

These new bores will initially be monitored monthly, with continuous water level loggers also installed in each bore. The groundwater monitoring program aims to get an accurate understanding of the site hydrogeology, the existence of groundwater, elevations, flow direction, yield, quality, and confirm the level of surface water / groundwater interaction.

Eight groundwater data points are available from the existing monitoring network, which provides a foundation for establishing interim groundwater contaminant limits, which will be outlined in the EA. Once the interim groundwater quality objectives are finalised, monitoring will go back to quarterly.

A detailed Mine Water Management Plan is in place.

2.4.3 Soils and Capping Material

The site conditions are the result of historical impacts and the natural environmental conditions. There is limited topsoil on site which is consistent with the surrounding area and consists of natural loam soil predominantly on the lower slopes and gullies. Rehabilitation

completed to date shows positive progression towards completion criteria, ongoing monitoring and evaluation will ensure rehabilitation objectives will be met. It is not anticipated that import of topsoil will be required due to initial positive rehabilitation outcomes, risk of importing pests, weeds and disease, economic constraints, distance from substantial topsoil resources.

A soil characterisation assessment was undertaken in 2024 for the project site. The assessment included:

- 10 survey sites
- Collection of representative topsoil and subsoil samples
- Physical and chemical analyses of samples
- Analysis of results and assessment for rehabilitation suitability

The primary soil type found is a tenosol, specifically Fu25. This type of soil is generally found in low, hilly to hilly lands closely dissected by numerous small streams. Undulating areas occur marginally and there are some areas of high hills with very steep slopes and common rock outcrops. The dominant soils are very shallow, gravelly, bleached loams (Um2.12), with lesser areas of similar loams (Um2.21, Um4.1, and Um4.21). Smaller areas of similar, sandy loams (such as Uc2 and Uc4) occur locally. Associated throughout the unit are areas of shallow, gravelly duplex soils (namely Dy3.41, Dr2.41, and Dr3.41), particularly on lesser slopes. In some valley floors, there are small areas of Dy3.43 soils. Small areas of basic volcanic rocks in the unit have deeper, red, friable clays (i.e. Uf6.31). At the northern margin of the project site, the unit may be capped by small sandstone mesas of unit Ca35.

With the exception of the SS5 site, soils from across the site are generally within nutrient and salinity ranges conducive to successful plant growth of endemic species. The majority of the soils sampled are not overly susceptible to erosion based on the physical and chemical properties observed.

The project will be managed in a manner that the release of water or waste to land is sustainable and is managed to prevent or minimise adverse effects on the composition or structure of soils and subsoils.

Topsoil management measures will include:

- Topsoil stripping prior to disturbance to conserve the limited topsoil resource on site to use in future rehabilitation. Topsoil will be stripped to a minimum of 0.2 m for all new disturbance areas. The project is not anticipated to have any topsoil deficit.
- Subsoil stripping prior to disturbance for use as growth material and/or capping material, where suitable material exists.
- Topsoil and subsoil stockpiles will be seeded if left for > 12 months.
- Where possible, topsoil and subsoil will not be stripped or placed in rehabilitation areas during or immediately after rainfall events.
- Cleared vegetation will be stockpiled for use in rehabilitation as habitat trees, log piles, and/or mulching.

2.4.4 Mine Waste Characterisation

The material makeup of the Dianne Copper Project contains three components of waste rock being the existing waste rock stockpile, spent ore, and mined overburden.

A waste characterisation sampling program was completed in 2020 on the existing waste rock stockpile. A total of 46 auger drill holes were sampled across the waste rock stockpile to a maximum depth of 13 m, which provided spatially representative information for the entire stockpile. The results show that the existing waste rock stockpile is intermittently layered with low grade waste containing presence of mineralisation consistent with the halo of mineralisation surrounding the historically mined ore body. In summary:

- The majority of waste rock material is classified as Non-Acid Forming (>98.5% of total material).
- There are small sections of waste rock material classified as Potentially Acid Forming (<1.5% of total material). These small areas are identified as material greater than 0.2% sulphur content and are located within the centre of the waste rock stockpile. During rehabilitation, this material will be encapsulated and placed at the base of the waste rock stockpile.

More than 95% of the ore (33% total material) planned to be leached is oxide ore, while the remaining 5% (3% total material) is secondary sulphide ore. Waste sampling and characterisation on oxide ore heap leach residue suggests that spent oxide ore will be chemically benign. Geochemical characterisations of the secondary sulphide ore (EGI, 2025) indicate spent secondary sulphide ore was inconclusive in net acid forming characteristics due to leachable metals and metalloids, as well as sulphides that may not oxidise completely over the course of residence time at the heap leach pad. The current mine schedule estimates that the maximum quantity of mined ore that is at risk of being potentially acid forming comprises 3% of the total material mined, at the bottom of the pit and is moved at the end of the schedule.

Mined overburden material from the project will comprise a range of rock types, including unmineralised material and material from the mineralised zones below the copper cut-off grades. Some of these rock types may be highly pyritic (i.e. at risk of potentially acid forming and a potential source of acid mine drainage). The current mine schedule estimates that the maximum quantity of mined overburden that is at risk of being PAF comprises 2% of the total material mined. This overburden is at the lowest levels of the pit and is moved at the end of the schedule.

All overburden used in construction will be from unmineralised, benign areas. At closure, PAF will be encapsulated with a minimum of 20m of benign material within the backfilled mine pit. all potentially acid forming material in the waste rock storage areas.

A comprehensive program for characterising all waste rock materials will be finalised prior to the commencement of mining and used to identify PAF and update the Waste Rock Management Plan and associated Final Landform and Cover Design for the project. This program includes staged geochemistry sampling and test work to estimate the types and quantities of rock with potentially acid forming and acid mine drainage potential. For each material type the program will:

- Develop project specific set of criteria that can be used to readily identify potentially-acid forming and non-acid forming materials;
- Indicate the proportions of potentially-acid forming and non-acid forming materials to be mined;
- Develop protocol for regular short interval sampling and geochemical test work to identify potentially acid forming materials for the future drilling programs;
- Develop a protocol for incorporating the data into the block model and producing a life of mine schedule of potentially-acid forming and non-acid forming materials to be mined.

In the event that any PAF is discovered during mining operations and has to be temporarily stored before the encapsulation zone is prepared, PAF will be temporarily stored in the northern corner interim waste rock stockpile. This area will have a compacted floor with a basal layer of Geosynthetic Clay Liner and will drain to the landfill where any runoff will be held for testing and amelioration (if required) before release into the site sediment drainage system.

A detailed Waste Rock Management Plan (Projectick, 2025) has been developed for the project and will be updated with additional waste rock characterisation data prior to the commencement of mining.

2.4.5 On-site Landfill

The project will be operated in a way that will protect environmental values in relation to the management of waste, in line with *Guideline: Application requirements for activities with waste impacts*.

Any non-mining waste generated, transported, or received as part of the project will be managed in a way that protects all environmental values and minimises adverse environmental impacts. Non-mining waste will be managed following the waste management hierarchy of:

1. Avoidance
2. Reduction
3. Reuse
4. Recycling
5. Recovery
6. Treatment
7. Disposal

A small landfill will be excavated on the site for construction and general waste. It is anticipated that total general waste to be placed in the on-site landfill will total approximately 5,000m³ in volume, which is approximately 1% of the total overburden stockpile (Figure 14). Figures 14a and 14b show how the small landfill will integrate into the overall overburden stockpile footprint, including full encapsulation. The total landform will then be capped and rehabilitated per the Final Landform and Cover Design Report. No hazardous waste will be placed in the on-site landfill.

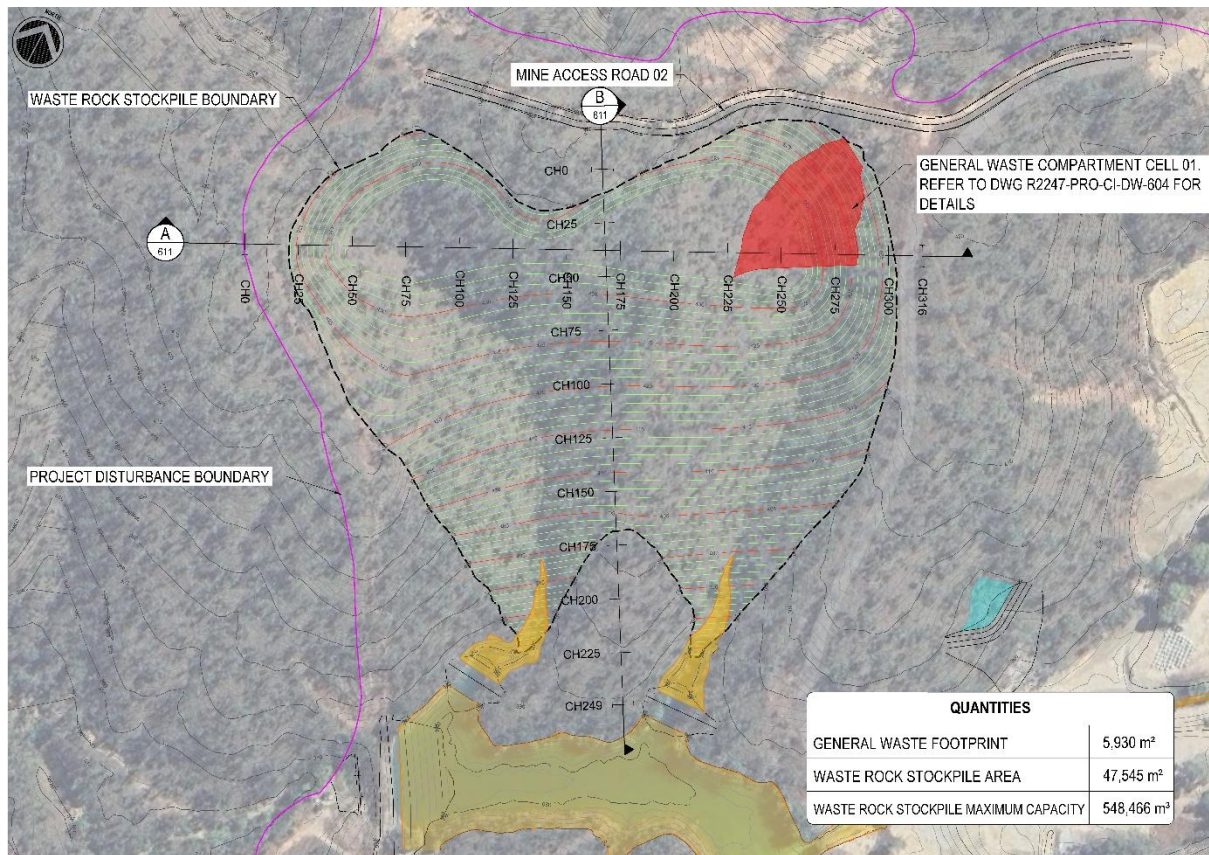


Figure 14: Predicted Landfill Layout

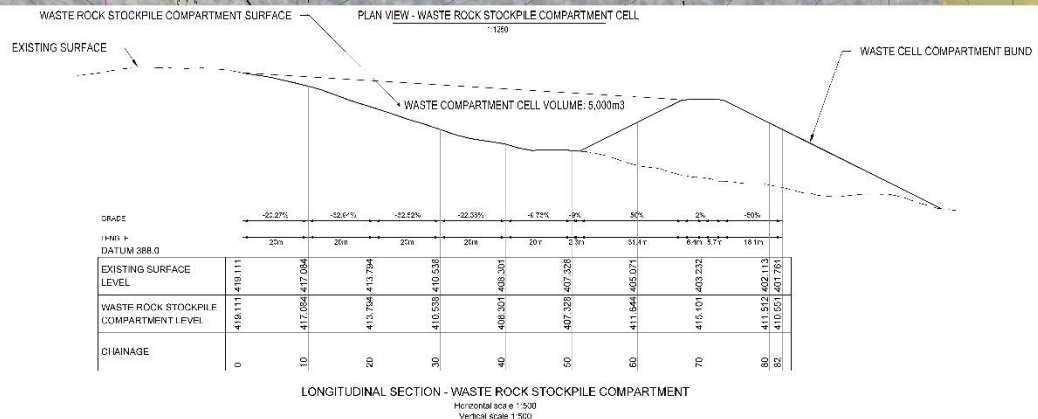
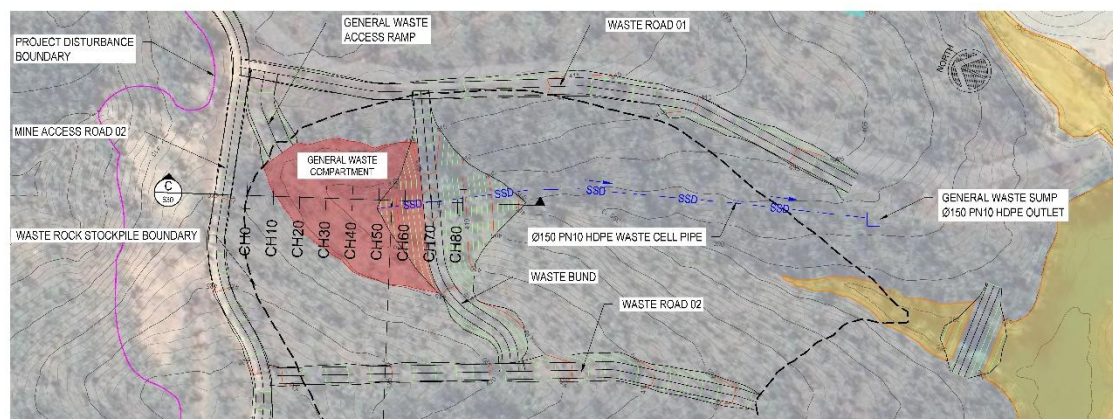


Figure 14a: Predicted Landfill Layout – Plan and Cross Section

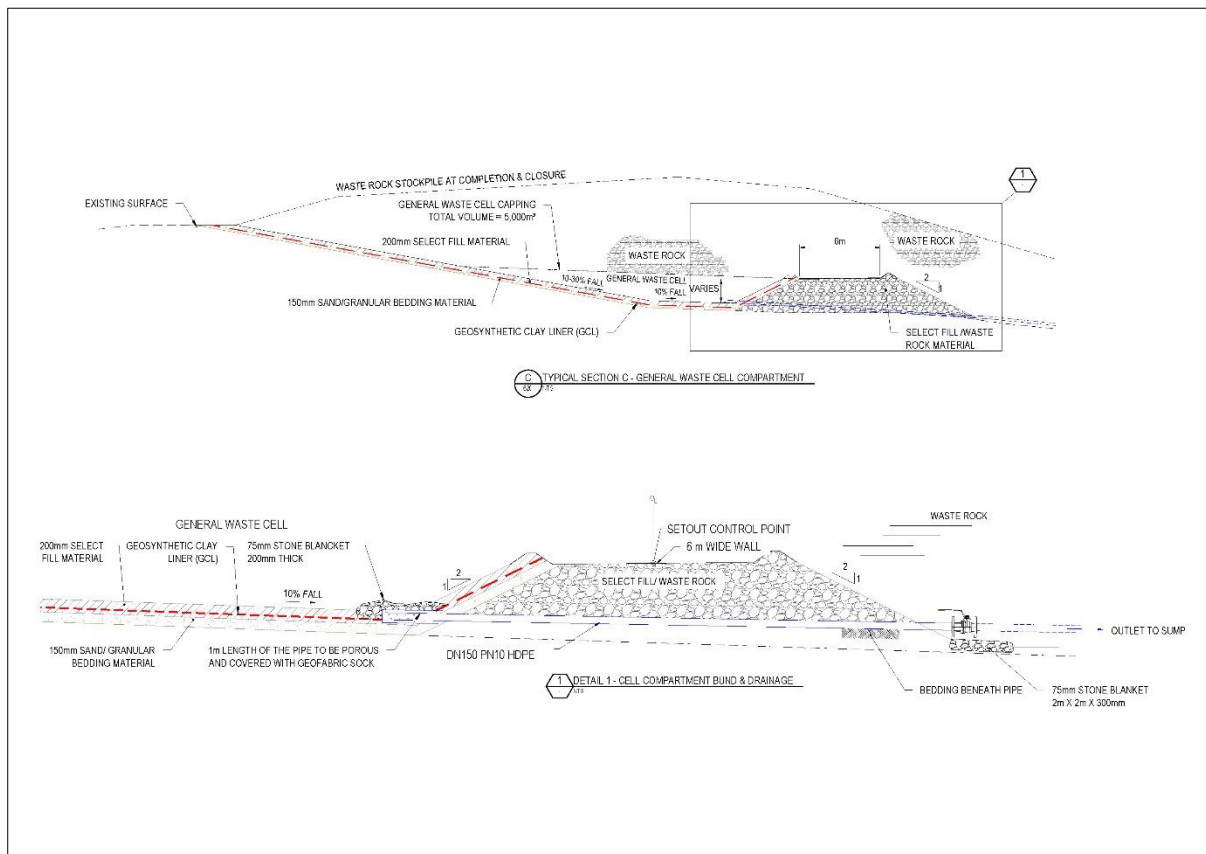


Figure 14b: Predicted Landfill Layout – Detailed Cross Section

Once the landfill is complete, it will be capped and form part of the mine waste stockpile. As such, the mine waste management and mitigation measures will also be in place for the landfill, including groundwater monitoring and surface water shedding. All other non-mining waste, including all hazardous wastes (hydrocarbons etc.), will be disposed of will be removed to a licences place lawfully able to accept the waste in accordance with the EA conditions. It is anticipated that this facility will be the Springmount Waste Management Facility, located to the south of Mareeba. All waste to be transported off-site will be managed in a way that protects environmental values and in accordance with EA conditions and the *Waste Reduction and Recycling Act 2011*. No waste will be received as part of the project.

Waste will not be burnt on site.

A contaminated land investigation will be completed post rehabilitation as part of mine closure, to be prepared by an approved person. The investigation will include a report containing a site suitability statement that states that land is not contaminated and is suitable for the proposed PMLU.

2.4.6 Final Landform Design

The final landform will be safe and structurally stable, and in line with the surrounding area. Slopes will be a maximum of 20%, reduced to a maximum of 14% for the southern slopes, to achieve a factor of safety of 1.5 or greater.

The final landform for the waste rock stockpile has been designed as a store and release system with vegetation cover and an infiltration barrier. It is anticipated that there is sufficient clay material on site for the construction of the infiltration barrier. All PAF material and material with the potential for AMD will be encapsulated within the overburden stockpile prior to closure, with cover material a minimum of 20 m of benign material (i.e. confirmed not PAF or with a potential for AMD).

Prior to the commencement of the overburden stockpile during mining operations, the following additional work will be completed and the Final Landform Design (Projectick, 2025) will be updated:

- Detailed erosion modelling
- Infiltration testing
- Test pits of the base of the overburden stockpile to confirm soil structure and permeability
- Additional geotechnical testing

A final landform 3D design for the site is provided in Figure 15.

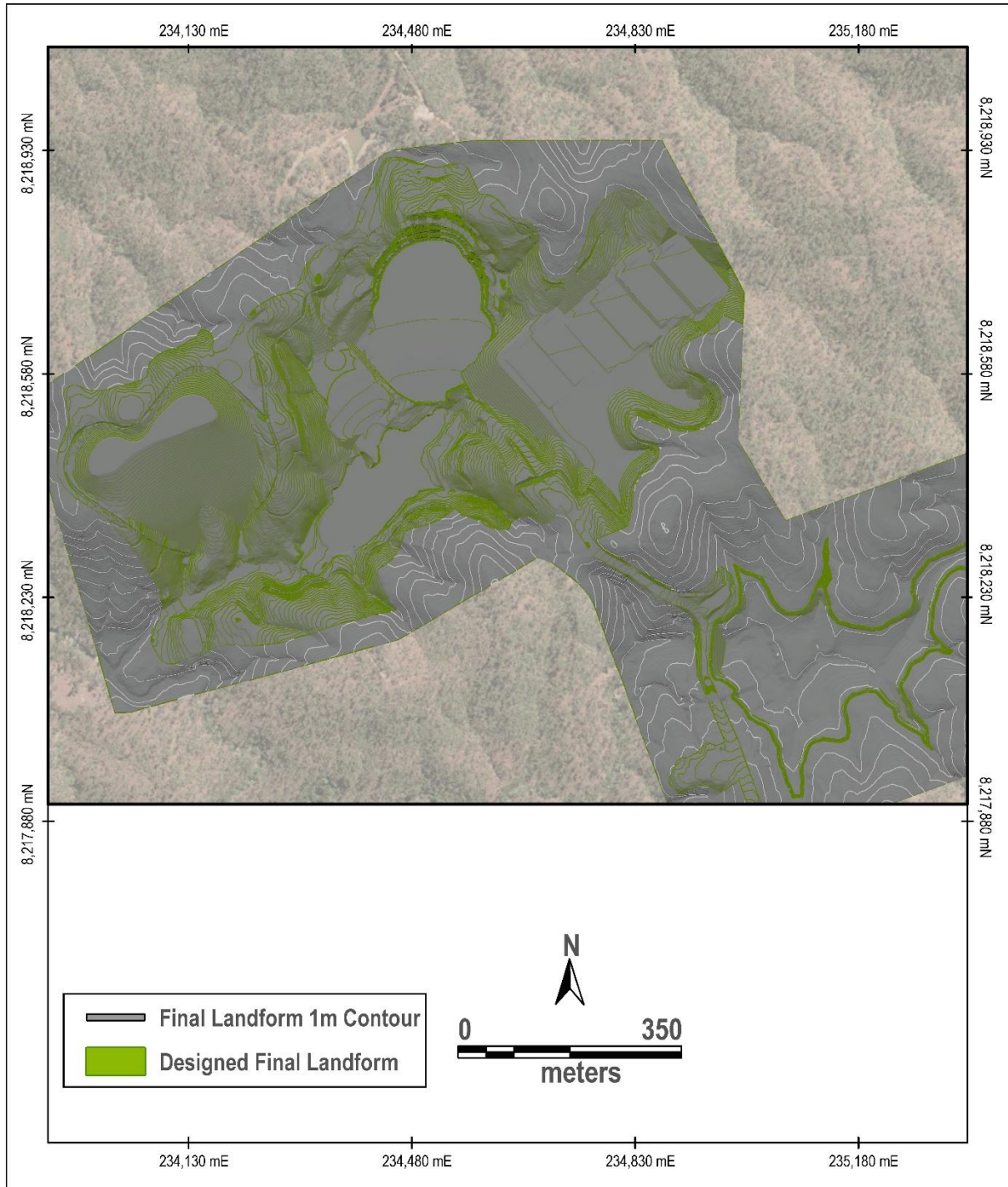


Figure 15: Final Landform 3D Design

2.4.7 Cover Design

Cover design is required for the overburden (waste rock) stockpile and is provided in Appendix 2. The cover design provides a conceptual final landform and cover design for the project, in addition to a scope of additional work required to update and finalise prior to closure (Projectick, 2025).

The rehabilitation includes the following, with detail provided in Appendix 2:

- Backfilling of the pit to the water line.
- Remaining material placed in the overburden stockpile.
- Segregation of rock types and tracking of all material within the storage area. Where possible, PAF / potentially acid mine drainage material will be placed at the core of the storage area.
- Paddock dumping in thin lifts where practicable, with lift heights of 5 m.
- All PAF material from the waste rock stockpile (classified as material containing greater than 0.5% sulphur) is encapsulated within NAF material. This design provides the lowest risk of exposure of the PAF material and provides an effective rehabilitation outcome that reduces the risk of both surface water and groundwater interaction.
- Reshaping of the waste rock stockpile to provide a stable landform, with a maximum targeted slope of 20%, reduced to 14% on the southern slopes, which provides a more resilient landform for erosion, and consistent requirements with post-mining land uses (i.e. native ecosystem).
- A store and release with vegetation cover system.
- Cover material to be geochemically benign, and at least 2 m in depth. Detailed cover system design will be completed by an appropriately qualified person.
- Detailed erosion modelling to be completed.
- Seeding of the reshaped areas, with ameliorants added as required such as gypsum/lime.

The proposed final landform will:

- Provide effective drainage.
- Ensure encapsulation and capping of any PAF material, ensuring the risk of exposure of this material is very low.
- Provide a stable landform.
- Provide a geotechnically stable final landform.
- Provide a final landform with similar or reduced susceptibility to erosion compared to the surrounding natural surface, even with low vegetation cover.
- Remove any final void, providing a more stable and environmentally positive outcome, particularly in relation to water quality.
- Provide for the final land use of native ecosystem.

2.4.8 Water Management

The hydrology of the mining leases is well known. The main receiving environment of the project site is Gum Creek (Figures 1 and 16). A minor tributary of Gum Creek has historically received flows from the disturbance areas associated with the mine. Gum Creek is a contributing catchment to the Palmer River sub-basin, which is part of the Mitchell River basin flowing west into the Gulf of Carpentaria.

As the site disturbance is minor in nature, and significant upgrade to the water management system will be put in place for the project. In addition, soils are rocky or loamy with limited dispersive properties.

The existing site water management system includes the following water storages:

- Raw Water Dam 1 (approximately 312 ML storage capacity)
- Raw Water Dam 2 (approximately 7 ML storage capacity) (to be removed for the project)
- Settling Dam (to be upgraded for the project and renamed Release Dam)
- Pit Dam (will become the active pit for the project, and no longer a dam)

There are a number of pumps and pipelines in place on site for effective water management. Raw Water Dams 1 and 2 (clean water) are linked and have the capacity to pump between each other; and the Settling Dam and Pit Dam are linked and have the capacity to pump between each other with the aim of keeping the Settling Dam as low as possible prior to each wet season. Raw Water Dams 1 and 2 do not pump to or from the Settling Dam nor the Pit Dam.

Prior to the wet season, Raw Water Dam 2 is pumped as low as practicable into Raw Water Dam 1. Both of these clean water dams have the ability to spill during the wet season.

The potential contaminants within the site are limited to elevated water quality levels of the Settling Dam and due to the waste rock stockpile. Prior to the wet season, the Settling Dam is pumped into the Pit Dam to reduce its storage level of the Settling Dam as low as possible. The spill pathway into the environment from the Settling Dam is limited to flow following rainfall events into the tributary of Gum Creek. To reduce the potential for this, clean water diversion drains have been installed around the waste rock stockpile to divert water around the stockpile and reduce water filtering through it. Water quality is also improving and approaching compliant levels within all water management initiatives previously completed on site.

Two flow meters have been installed to monitor releases, one in the Settling Dam spillway, the second in the tributary of Gum Creek.

Additional water storages to be constructed for the project will include:

- Raw Water Dam 1 (approximately 312 ML storage capacity)
- Clean Water Dam 1 (approximately 0.4 ML storage capacity)
- Clean Water Dam 2 (approximately 7.3 ML storage capacity)
- Clean Water Dam 3 (approximately 12 ML storage capacity)
- Release Dam, to be an upgrade of the existing Settling Dam with an approximate total capacity of 47 ML

- Overflow Dam (approximately 23.5 ML storage capacity)
- Process Water Dam (approximately 42.5 ML storage capacity)
- Numerous small sediment control dams

All new water storages for the project have undergone a CCA, completed by an RPEQ, and determined to be low risk and therefore not regulated structures.

Transition from the current system to the recommencement of mining requires the following changes to the water management system:

- Overflow Dams to contain any spills from the heap leach pad and process area during high / prolonged rainfall events.
- A Process Water Dam for dewatering of the Overflow Dams.
- Upgrade of the existing Settling Dam including additional capacity and removal of any contaminated sediments. This will include decommissioning of the seepage collection system.
- Capture of rainfall / runoff to use as operational water, including dust suppression.
- Construction of Clean Water Dams and clean water diversion drains around the disturbance footprint.
- Construction of small sediment dams and dirty water cutoff drains as required.
- Use of irrigators and / or mechanical evaporators as required.

The Release Dam (Settling Dam) will undergo significant remediation and upgrade, with these works to be completed as soon as possible. Works will include:

- Widening of the dam wall and installation of a clay-infused geosynthetic (GCL) to remediate seepage
- Raising of the dam wall to increase storage capacity
- Removal of sediments from within the dam impoundment area to contained structures upstream to improve water quality
- Construction of a buttress on the downstream embankment to improve structural integrity of the wall if required
- Geosynthetic Clay Liner (GCL) will be placed down the upstream face of the embankment and buried at least 750mm into firm founding material below the toe of the embankment.

Saturated sections of the downstream toe fill will be selectively removed and replaced with coarse general fill. The upgrades to the water management system for the project are anticipated to provide a reduced likelihood of water releases during the wet season, in addition to providing improvement to the water quality of any releases.

The leaching area (heap leach pads, lined storage and process ponds) will include additional mitigation measures in place to reduce any potential impact to surface water and groundwater, including:

- An 'under-cushion' of minus 19mm road base will be placed, compacted and trimmed.
- Sub-soil drains will be installed on a herringbone pattern on each of the pads and ponds. The sub-soil drain will consist of a 300 x 450 sub-surface trench filled with drainage aggregate wrapped in a geotextile with a drain or perforated pipe in the middle of the aggregate.

- HDPE liner will be installed.
- A 300mm overcushion will be placed, which will be the same material as the under-cushion.

Due to the unique topography of the site, all the sub-soil drains can run to 'daylight' and allow any potential leakage to gravitate from the leak. For the pads, each will have an outlet to the next lower pad and for the ponds and dams, these will gravitate to a collection sump lower down near the SX plant. Drains will be kept separate and labelled so that if there any outflow, the source can be readily identified and repairs implemented. The Dianne Copper Mine Water Management Plan provides additional detail on water management on site and for the recommencement of mining.

During rehabilitation, water management structures will be decommissioned and rehabilitated as follows, in accordance with RM5:

- Free-standing water transferred out of structures to an appropriate place.
- Any contaminated material within the base of the water management structures are removed and buried within the pit to a minimum depth of 10 m or removed to an appropriate facility.
- Dam walls are decommissioned and removed, with area shaped to match surrounding landform.
- Area is ripped.
- A minimum of 0.2 m of growth medium (topsoil, subsoil, or ameliorated material) is placed over the area.
- The landform is stable and water-shedding.

During rehabilitation, once water inflow at the Release Dam achieves quality similar to the surrounding environment, the embankment will be removed and the resultant earth placed within what was the dam impoundment area to mimic natural creek bank conditions. Standard earthworks erosion and sediment controls will be implemented until the Release Dam footprint is rehabilitated. The GCL and blockwork will be removed and disposed of in an appropriately licensed facility.

Upon the completion of rehabilitation of water management structures, these areas will have natural water flow and water quality similar to the surrounding environment.

2.4.9 Floods

The site sits within the upper catchments of Gum Creek and the Palmer River, and outside of any Queensland Government mapped flood plains (Floodcheck, 2021) as shown in Figures 16 and 17.

The mine site is located high in the upper catchment of a small tributary of Gum Creek. The drainage lines/watercourses in this area are characterised as steep, small valleys formed in between the many hills. The mine's positioning within the catchment and the geomorphology of the catchment area suggests it would be highly unlikely to be affected by riverine flooding (C&R, 2021).

A detailed hydrologic flood model for the project was undertaken by Engeny (2025) for the project and the final landform scenarios. The scenarios were completed for both the 1% AEP and 0.1% AEP events.

The overall erosion risk due to flooding for the final landform is considered to be low for both events.

The overall potential changes to the flood regimes of the site (i.e. Gum Creek and tributaries) due to the project were assessed for peak flow, critical duration, and temporal pattern for each event. Results indicate that for the final landform scenario, peak flows will increase by approximately 1 m³/s and 0.2 m³/s for the 1% AEP and 0.1% AEP respectively. These increases are relatively minor, with the existing flow capacity sufficient to carry this increase due to the project.

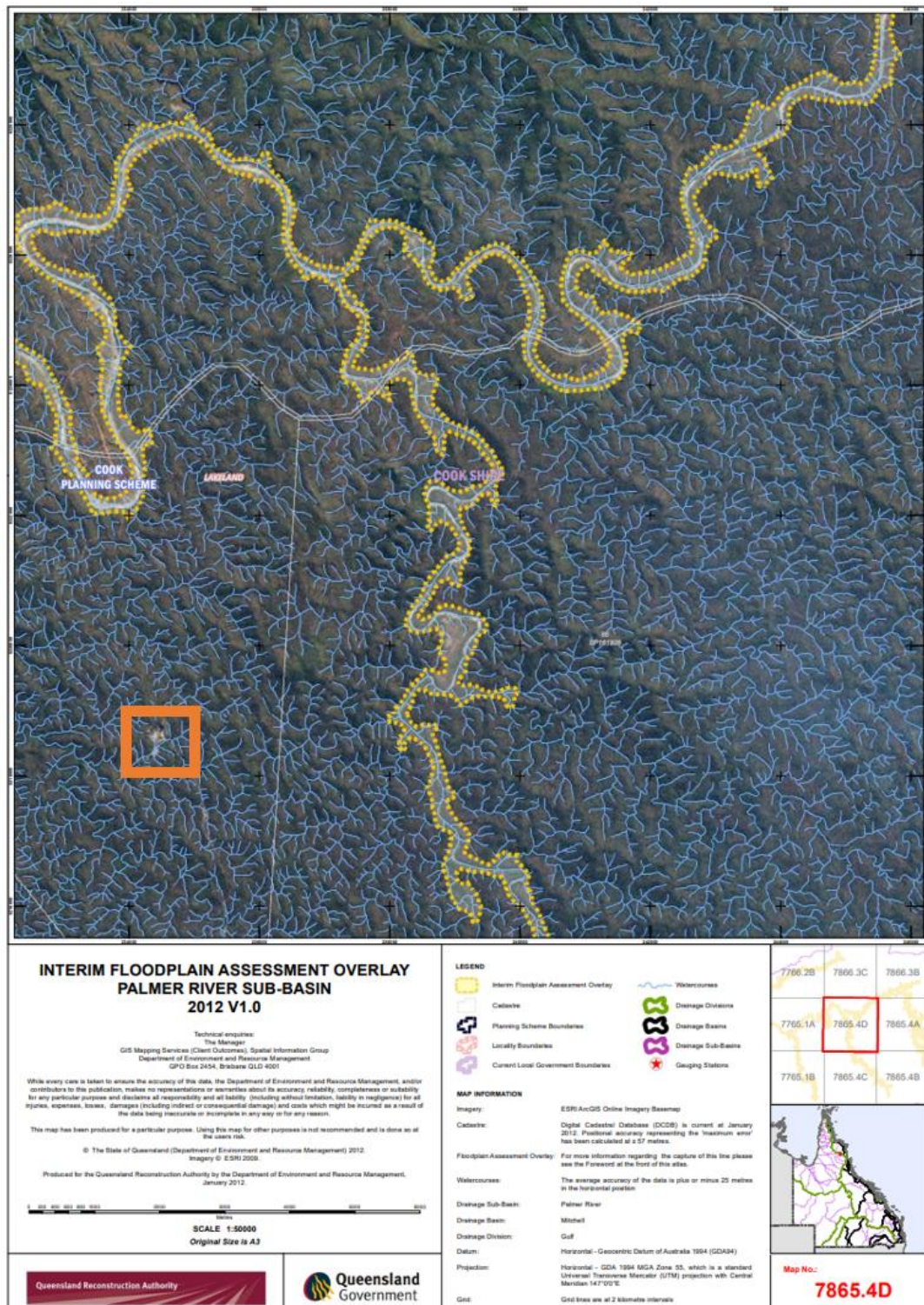


Figure 16: Floodcheck Floodplains (2021)

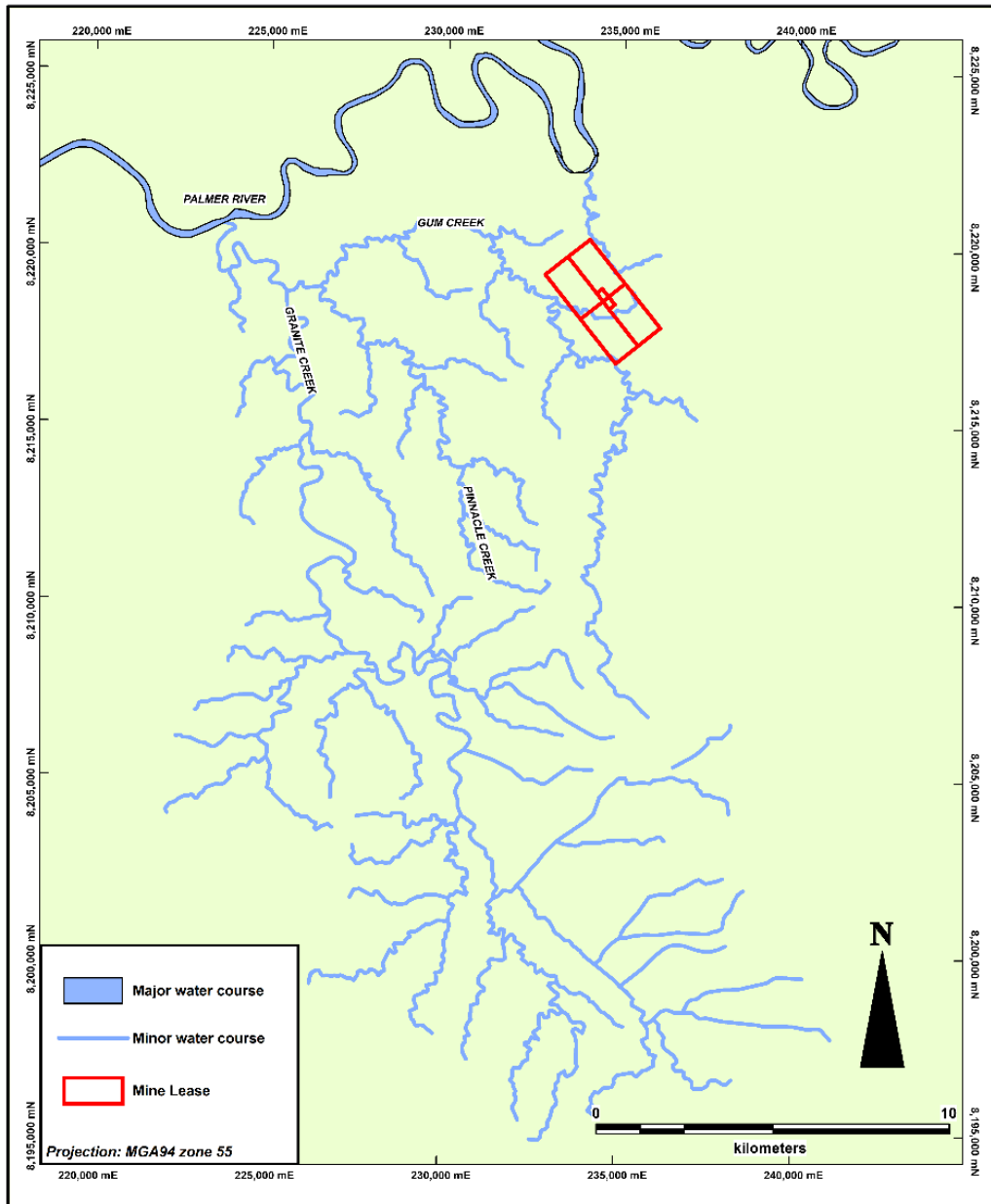


Figure 17: Watercourses

2.4.10 Revegetation Plan

Rehabilitation and closure detail for each of the domains has been determined based on EA requirements, best practice, expert advice and landowner discussions. Rehabilitation will provide a stable final landform. There will be no non-use management areas and no final voids and as such there is not expected to be any areas of instability. In addition, the recommencement project has been designed with closure and rehabilitation at the forefront.

In accordance with the EA and PRCP guidelines, the rehabilitation plan for Dianne Copper Mine will include the following phases to achieve self-sustaining vegetation communities consistent with the PMLUs:

1. Identification of areas available for rehabilitation.
2. Removal of infrastructure and services.
3. Contaminated land assessment. Removal of any contaminated material or capping with clean material.
4. Earth works and shaping.
5. Installation of water management and erosion and sediment control systems as required including contour drains.
6. Topsoil or subsoil placement. Steeper areas may require additional stability measures to be installed such as coconut matting and other ameliorants such as gypsum and/or lime.
7. Ripping along the contour to a depth of at least 0.2 m.
8. Seeding of ripped areas – the seed mix will include native grasses, pasture grasses, and a native shrub and tree mix consistent with the surrounding Eucalyptus and/or Corymbia open woodlands. Infill tube stock planting will be undertaken where required.
9. Ongoing rehabilitation monitoring program.

Rehabilitation activities (other than seeding) will be focused during the dry season and limited during the wet season to control erosion and sediment and for safety and access reasons. Revegetation objectives are consistent with the PMLUs and the PRCP rehabilitation milestones, and include:

- Create a stable landform.
- Establish functional and self-sustaining ecosystem with natural rates of erosion.
- Establish pasture and vegetation communities that resemble those of surrounding properties consistent with the native ecosystem vegetation and grazing requirements.
- Establish pasture and vegetation communities that resemble surrounding properties in their ability to respond to fire and droughts.
- Rehabilitation of exploration areas as per "Eligibility criteria and standard conditions for exploration and mineral development projects" (ESR/2016/1985).

Rehabilitation species will include native grasses; cover crops for stabilisation; pasture grasses and native shrubs and trees. Revegetation species will align with those in the surrounding properties and include fauna habitat and other associated ecosystem services. Key flora species will be sources from the Northern Queensland region (including Tropical Pasture Seeds Australia, Atherton; and Nutrien Ag Solutions, Tolga) and will include, where available:

- A mix of pasture species and native species present in RE 9.11.3a, 9.11.3b, 9.11.25 and 9.11.26a, and RE 9.3.14a in riparian areas including:
 - Eucalyptus and/or Corymbia open woodlands native tree, sub story and shrub species (including Melaleuca, Acacia and Petalostigma spp.)
 - Native grasses (including Heteropogon spp., mnesithea rottboellioides, themeda triandra, and Aristida spp.)
 - Pasture species (including ryegrass, Rhodes grass and bluegrass)
- The seed mix specified will be revised for the PMLU native ecosystem areas (i.e. overburden stockpile, heap leach pads, and pit) to remove deep-rooting (>1.5 m) tree species and pasture species.

Seed will be direct seeded at a minimum application rate of 8 kg/ha. Direct seeding will occur at the commencement of the wet season following rainfall and prior to additional rainfall, where possible.

The construction waste and other benign material will be broken up and used as fill in the pit (void) backfilling.

2.5 Tailings Storage Facilities

There are no tailings storage facilities located at the site.

2.6 Voids

There will be no final voids post mining at the site.

2.7 Underground Mining

The underground portion of the mine was backfilled and closed/sealed in 1983. Final rehabilitation of the underground portal will be completed as part of the pit (void) rehabilitation.

There is currently no evidence of subsidence or other surface impacts associated with the historic underground mining area, and there have been no known surface impacts over the last 40 years since the portal was sealed.

2.8 Risk Assessment

The Dianne Copper Mine implements internal environmental management systems to effectively manage environmental issues and ensure compliance with regulatory requirements per EA EPML00881213. The environmental management system includes internal procedures, standards and management plans, and will continue to be operated to ensure all environmental, social, and cultural responsibilities are met.

A risk assessment workshop was completed on 9 July 2024 with the proponent, mining engineers, and rehabilitation specialists. In accordance with Section 126C(1)(f) of the EP Act, the risk assessment assesses the environmental risks of the project and how these risks will be managed or minimised. An overview of the outcomes of the risk assessment is provided below in Tables 7 and 8.

Table 7 – Risk Matrix

Likelihood of Risk	Consequence of Risk				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	Moderate	High	High	High	High
Likely	Low	Moderate	High	High	High
Possible	Low	Moderate	Moderate	High	High
Unlikely	Low	Low	Moderate	Moderate	Moderate
Rare	Low	Low	Low	Moderate	Moderate

Table 8 – Rehabilitation Risk Assessment

Milestone	Hazard / Risk and Potential Impact	Risk Classification			Risk Treatment Plan, Mitigation Measures and Performance Measures	Risk Classification		
		Likelihood	Consequence	Classification		Likelihood	Consequence	Classification
New disturbance areas	Land clearance – topsoil and subsoil is not stripped and/or managed poorly	P	Mi	Mo	- The extent of disturbance will be minimised where possible. - New disturbance areas will be stripped of vegetation and topsoil and stockpiled to be used in rehabilitation. - Where possible, new disturbance will be undertaken during the dry season to reduce compaction due to wet soil.	U	Mi	L
New disturbance areas	Land clearance – vegetation clearing is managed poorly	P	Mi	Mo	- Areas will be cleared progressively as required for mining operations. - Areas to be cleared will be clearly demarcated. - Vegetation clearing will be undertaken with a fauna spotter catcher present. - A detailed fauna assessment was undertaken outlining any potential habitat on site.	U	Mi	L
Explosives	Unplanned explosion	R	C	Mo	No explosives will be stored on site.	R	C	Mo

Milestone	Hazard / Risk and Potential Impact	Risk Classification			Risk Treatment Plan, Mitigation Measures and Performance Measures	Risk Classification		
		Likelihood	Consequence	Classification		Likelihood	Consequence	Classification
Transport of materials to and from site	Containment failure	U	Ma	Mo	- Use of licenced contractors. - Obey all road rules. - Radio communications on vehicles. - Regular inspection and maintenance of vehicles and equipment.	U	Ma	Mo
Sewage Treatment Plant	Spill	P	Mi	Mo	- Plant will be operated in accordance with all regulatory requirements. - Routine inspections and maintenance will be undertaken of the plant. - Use of PPE in the case of a spill	U	Mi	L
Process water / acid storage	Spill	U	Ma	Mo	- Bunding allows for full containment - Annual inspection of regulated structures by an RPEQ - Additional routine inspections and maintenance as required of regulated structures	U	Ma	Mo
All	Extreme weather event e.g. cyclone, fire	P	Mo	Mo	- Emergency procedures in place - Mine water management system to include procedure for high rainfall events, including provision of freeboard at the start of the wet season - Annual inspection of regulated structures by an RPEQ	P	Mi	L

Milestone	Hazard / Risk and Potential Impact	Risk Classification			Risk Treatment Plan, Mitigation Measures and Performance Measures	Risk Classification		
		Likelihood	Consequence	Classification		Likelihood	Consequence	Classification
					- Additional routine inspections and maintenance as required of dams - Fire management plan in place, including evacuation of staff in catastrophic events - Fire breaks constructed			
All	Noise and vibration impacts	U	Mi	L	- There will be no heavy equipment operating at night (between 10 pm and 6 am). - Blasting to be limited to Monday to Friday 6 am to 6 pm. - There are no sensitive receptors within proximity of the site. - Progressive disturbance - Progressive rehabilitation - Investigate any noise and/or blasting complaints as soon as practicable	U	Mi	L
All	Air quality impacts	U	Mi	L	- Dust suppression as required e.g. water trucks - Progressive disturbance - Progressive rehabilitation - Investigate any air quality complaints as soon as practicable	U	Mi	L
	Poor storage and management of chemicals/hydrocarbons and infrastructure leading to water quality issues	P	Mi	Mo	Chemicals will be stored per Australian Standards.	U	Mi	L

Milestone	Hazard / Risk and Potential Impact	Risk Classification			Risk Treatment Plan, Mitigation Measures and Performance Measures	Risk Classification		
		Likelihood	Consequence	Classification		Likelihood	Consequence	Classification
	Failure to remove all infrastructure in accordance with the PRCP schedule	U	Mi	L	Infrastructure decommissioning per PRCP schedule	U	Mi	L
	Poor management of non-mining waste	U	Mi	L	- Waste generation will be limited and adhere to the waste management hierarchy. - Waste will be disposed of within the on-site landfill or transferred to an appropriately licenced place.	U	Mi	L
	Failure to backfill pit (void) area	P	Mo	M	- Progressive rehabilitation including backfilling of the pit - Groundwater and surface water monitoring programs are in place.	U	Mi	L
	Water quality of discharges from site during post mining phase is not suitable for receiving environment (both surface water and groundwater)	Li	Mo	H	- Progressive rehabilitation. - Groundwater and surface water monitoring programs are in place. - There are no known groundwater users within the mining leases or 10 km of the leases	U	Mo	M
	Inadequate volume of topsoil or capping material for rehabilitation	Li	Mi	M	- Topsoil and subsoil capping materials will be won from other areas of site as required to use in rehabilitation, or use of the NAF material. - New disturbance areas will strip topsoil and other capping materials where possible.	U	Mo	M

Milestone	Hazard / Risk and Potential Impact	Risk Classification			Risk Treatment Plan, Mitigation Measures and Performance Measures	Risk Classification		
		Likelihood	Consequence	Classification		Likelihood	Consequence	Classification
					Where required, soil will be stockpiled outside of active work areas and erosion and sediment controls installed.			
	Poor geochemistry of exposed surfaces of overburden and spent ore stockpiles and management dams, including acid sulphate soils and acid forming materials	Li	Mo	H	- Identify areas of poor geochemistry on site including exposed surfaces of overburden and spent ore stockpiles and sediment build up in associated catch dam. - Mine water management system to redirect water around overburden and spent ore stockpiles. - Rehabilitation of overburden and spent ore stockpiles per detailed cover design. - Water quality monitoring to continue. - Encapsulation of PAF material in overburden and spent ore stockpiles at the base of the final landform.	P	Mo	M
	Identification of previously unknown contaminated areas	P	Mi	M	- All spills to be cleaned up immediately. - All new spills to be recorded. - Contaminated land assessment to be completed at closure.	MI	U	L

Milestone	Hazard / Risk and Potential Impact	Risk Classification			Risk Treatment Plan, Mitigation Measures and Performance Measures	Risk Classification		
		Likelihood	Consequence	Classification		Likelihood	Consequence	Classification
	Erosion and/or stability issue causing failure of rehabilitation areas (i.e. not a stable landform)	P	Mi	M	- Appropriate erosion and sediment controls will be established prior to disturbance, or where required in existing disturbance areas such as silt fences. - Clean water catchments will be diverted around disturbed areas where possible. - Runoff from disturbed areas will be diverted into sediment dams and into the site water management system. - Groundwater and surface water monitoring programs are in place. - Progressive rehabilitation . - Additional erosion modelling will be completed to guide final landform design. - Reshaped landforms will be shaped in such a way to ensure a stable landform long term including reduction of slopes, benching of areas, and adequate water management structure installation.	P	Mi	M
	Final landform is not stable, with instability or failure of reshaped landforms	P	Mo	M	Reshaped landforms will be shaped in such a way to ensure a stable landform long term including reduction of slopes, benching of	P	Mi	M

Milestone	Hazard / Risk and Potential Impact	Risk Classification			Risk Treatment Plan, Mitigation Measures and Performance Measures	Risk Classification		
		Likelihood	Consequence	Classification		Likelihood	Consequence	Classification
					areas, and adequate water management structure installation. • Pit will be backfilled and shaped. • Highwall will be made safe and stable via benching if required. • Highwall will be fenced off for safety. • Site investigation to evaluate the strength of the foundation of the proposed waste rock dump will be completed prior to construction of the waste rock dump. • Reshaped landforms will be shaped in such a way to ensure a stable landform long term including reduction of slopes, benching of areas, and adequate water management structure installation.			
	Inadequate seed mix or unavailability of seed	P	Mi	M	• Use of local and commercially available seed.	U	Mi	L
	Intruding livestock and/or native herbivores	AC	Mi	H	• Additional gates and fences installed to reduce access for people and stock.	Li	Mi	M

Milestone	Hazard / Risk and Potential Impact	Risk Classification			Risk Treatment Plan, Mitigation Measures and Performance Measures	Risk Classification		
		Likelihood	Consequence	Classification		Likelihood	Consequence	Classification
	Grazing pastures on rehabilitation are not comparable to surrounding land use	U	Mi	L	Rehabilitation areas will be topsoiled and ripped prior to seeding and tree planting to increase filtration and seed set.	U	Mi	L
	Weed infestation of rehabilitation areas	L	Mi	M	Weed management programs will be implemented where required.	P	Mi	L
	Failure of rehabilitation due to natural event (sustained drought, flood, fire, storm, frost)	R	Ma	M	- Rehabilitation areas will be completed to sustain natural events where possible. - Native vegetation from the region will be planted, in addition to hardy pasture grasses.	R	Ma	M
	Poor topsoil structure / geochemistry issues leading to failure of vegetation	Li	Mi	M	Soil ameliorants will be mixed with soil used in rehabilitation as required, such as gypsum.	U	Mi	L
	Excessive density of trees and/or sub storey vegetation	P	Mi	M	- If excessive density of mature vegetation, thinning will be undertaken which will provide additional habitat features. - Focus on reseedling of pasture and native grasses. - Use of lower density of trees and/or sub storey seed mix to reduce risk of excessive density.	U	Mi	L
	Poor pasture development	P	Mi	M	Use of a seed mix including hardy pasture grasses and native grasses.	U	Mi	L

Milestone	Hazard / Risk and Potential Impact	Risk Classification			Risk Treatment Plan, Mitigation Measures and Performance Measures	Risk Classification		
		Likelihood	Consequence	Classification		Likelihood	Consequence	Classification
					- Rehabilitation objectives to align with analogue background data. - Reseeding will be undertaken if not meeting rehabilitation objectives.			
	Water quality of retained water in water management structures post mining is unfit for use (both surface water and groundwater)	U	Mo	M	- Catchments do not include mine disturbance areas - Dams are not linked to dams within the mine disturbance areas - Groundwater and surface water monitoring programs are in place. - There are no known groundwater users within the mining leases or 10 km of the leases	R	Mo	L
	Instability or failure of water management structures and hazardous dams	R	Mo	L	- Regular inspections (at least annually) will be completed of disturbance areas and the site water management system. - Water management structures will be categorised and inspected as required under legislation. - Structures will be operated in accordance with the <i>Manual for assessing consequence categories and hydraulic performance of structures</i> - Pre-wet season inspection checklists will be completed to confirm sufficient freeboard prior to the wet season.	R	Mo	L

Monitoring and reporting requirements and associated timing for all risks are outlined in Section 2.9.

2.9 Monitoring, Reporting and Review Program

The Dianne Copper Mine has an extensive monitoring, reporting and review program in accordance with the EA and Section 126D(1) of the EP Act. The program provides for the repeatable collection of relevant statistically valid data to track trends over time and is undertaken using quality assurance and control systems by suitably qualified personnel. The monitoring program will be updated for the project as required. The details of the program are provided in Table 9 and Section 2.9.2, and will be provided to DETSI as required in annual reporting. The PMLUs relevant to each mining tenure are provided in Table 10.

Table 9: Monitoring, Reporting and Review Program

Monitoring, Reporting and Review	Relevant Rehabilitation Milestone
Annual REMP field-based monitoring and reporting as per the Dianne Copper Mine REMP Design Document. The REMP Design Document outlines all methodology and reporting requirements and includes monitoring includes sediments, water quality, and macroinvertebrates annually, in addition to an annual assessment of all data including previous REMP reporting. The REMP Design Document will be updated upon approval of the project.	• Mining operations, RM1 to RM9
Three yearly rehabilitation audits of the PRCP schedule per the PRCP guidelines.	• RM1 to RM9
Three yearly third party compliance audit.	• Mining operations
Field based monitoring of any release of mine affected water from RP1, per EA conditions.	• Mining operations, RM1 to RM9
All water management infrastructure, including regulated structures, earth bunds, dam walls, drainage channels and other infrastructure will be checked at least annually as part of the site environmental monitoring program. These inspections will be field based and visual in nature and include water levels, sediment build up, and any new areas of erosion. All regulated structures will be monitored annually by an REPQ and in accordance with EA conditions.	• Mining operations, RM5
Groundwater monitoring.	• Mining operations, RM1 to RM9

Monitoring will continue post closure to ensure milestone criteria are completed until relinquishment and the handover of the land and remaining infrastructure to the landowner. If the monitoring program shows that the trends are not progressing to meet milestone criteria, then maintenance programs will be implemented to bring back on track.

Table 10: Mining Tenement PMLUs

Title	Area	PMLU	NUMA
ML 2810	5.7	PMLU grazing PMLU native ecosystem PMLU infrastructure	Nil
ML 2811	5.7	PMLU grazing PMLU native ecosystem PMLU infrastructure	Nil
ML 2831	129.5	PMLU grazing PMLU native ecosystem PMLU infrastructure	Nil
ML 2832	123.8	PMLU grazing PMLU native ecosystem PMLU infrastructure	Nil
ML 2833	129.5	PMLU grazing PMLU native ecosystem PMLU infrastructure	Nil
ML 2834	123.8	PMLU grazing PMLU native ecosystem PMLU infrastructure	Nil

2.9.1 Rehabilitation Trials

There are no rehabilitation trials currently planned or being undertaken for the project.

2.9.2 Rehabilitation Monitoring Program

Rehabilitation will be undertaken in accordance with Section 2.4 and the PRCP Schedule. For each rehabilitation area, the rehabilitation milestone will be conformed as complete, prior to commencing the next milestone.

Rehabilitation monitoring will be undertaken annually (during operations, and post-closure) of rehabilitation sites (when available) and until rehabilitation sign-off is achieved. Completion of rehabilitation milestone RM 8 for both PMLU cattle grazing and PMLU native ecosystem is anticipated to be 10 to 15 years upon completion of all other rehabilitation milestones. The rehabilitation monitoring methodology will comply with Section 3/8 of the *Guideline: Progressive rehabilitation and closure plans (PRC plans) (ESR/2019/4964)*.

A detailed assessment of the description and attributes of the site was completed by C&R and forms part of the Dianne Copper Mine Terrestrial Ecology Report (C&R, 2024). This assessment provides a baseline for rehabilitation milestones and the analogue descriptions and attributes for use in rehabilitation monitoring. An overview of the major vegetation types to be used as analogue is provided as follows:

- Vegetation community W1 (comprises the majority of the project site. This vegetation type was comprised of a low, open woodland dominated by Cullen's ironbark (*Eucalyptus*

cullenii), Clarkson's bloodwood (*Corymbia clarksoniana*), Cooktown ironwood (*Erythrophleum chlorostachys*) and Dallachy's gum (*Corymbia dallachiana*), consistent with RE 9.11.3a. Within this vegetation type, the understory was dominated by a dense coverage of black spear grass (*Heteropogon contortus*), giant spear grass (*Heteropogon triticeus*), kangaroo grass (*Themeda triandra*), northern kerosene grass (*Aristida hygrometrica*) and silky oil grass (*Cymbopogon bombycinus*). In areas that have historically been disturbed, particularly in the west of the project footprint, the introduced grader grass (*Themeda quadrivalvis*) was dominant. Woody vegetation was mature, but with a relatively small, average diameter at breast height (DBH) of approximately 20 cm. This result is consistent with the benchmark data for this RE, which averages a DBH of 24 cm for eucalypts.

- Vegetation community R1. This vegetation type is consistent with a heterogeneous community of RE 9.11.3a (85%) and RE 9.3.14a (15%), and follows drainage lines. Most of the fringing vegetation in this habitat type is analogous with the adjacent woodland (W1). There is an infrequent occurrence of vegetation synonymous with riparian zones, including northern swamp mahogany (*Lophostemon grandiflorus*), bluegum (*Eucalyptus tereticornis*), river sheoak (*Casuarina cunninghamiana*) and sedges (*Cyperus* spp.).

Vegetation community W1 forms the majority of the project site, and will form the basis for rehabilitation of both PMLU grazing and PMLU native ecosystem. Vegetation community R1 will form small areas of rehabilitation along reestablished creek lines for both PMLU grazing and PMLU native ecosystem.

At least one rehabilitation monitoring site will be established in each RA, which equates to three sites per PMLU, as soon as practicable once first rehabilitation is completed. These sites will be monitored annually.

Water quality (surface water and groundwater) will continue to be monitored bi-annually in accordance with the REMP.

Contingency procedures for rehabilitation maintenance or redesign. Rehabilitation will not progress from one milestone to the next until completed and signed off by an appropriately qualified person, where necessary.

Table 11: Rehabilitation Monitoring Schedule

Rehabilitation Milestone	Rehabilitation Monitoring Methodology
RM 1 – Decommissioning of infrastructure	Documentation of removal of infrastructure and visual inspection. Documentation of ripping. Documentation of topsoil placement, including testing results to confirm suitability criteria have been met. Survey of landform (e.g. LiDAR) to confirm landform is water shedding.
RM 2 – Backfill of pit	Survey of landform (e.g. LiDAR) to confirm pit is backfilled. Documentation of assessment of suitably qualified person that landform is geotechnically stable.
RM 3 – Rehabilitation of Overburden Stockpile	Survey of landform (e.g. LiDAR) to confirm overburden stockpile has been shaped per Final Closure and Landform Design. Documentation of assessment of suitably qualified person that landform is has a FOS of 1.5 or greater. Documentation of assessment of suitably qualified person that the cover system, per the Final Closure and Landform Design, has been installed.

	Documentation of ripping. Documentation of topsoil placement, including testing results to confirm suitability criteria have been met.
RM 4 – Rehabilitation of Processing Areas	Survey of landform (e.g. LiDAR) to confirm processing area has been shaped per Final Closure and Landform Design. Documentation of assessment of suitably qualified person that landform is has a FOS of 1.5 or greater. Documentation of assessment of suitably qualified person that the cover system, per the Final Closure and Landform Design, has been installed. Documentation of ripping. Documentation of topsoil placement, including testing results to confirm suitability criteria have been met.
RM 5 – Rehabilitation of mine water management structures	Survey of landform (e.g. LiDAR) to confirm water management structures have been shaped per Final Closure and Landform Design, and no dam walls remain. Documentation of ripping. Documentation of topsoil placement, including testing results to confirm suitability criteria have been met.
RM 6 – Remediation of contaminated land	Documentation confirming all contaminated land has been remediated by a suitable qualified person.
RM 7 – Landform development	Documentation of topsoil placement, including testing results to confirm suitability criteria have been met. Assessment from suitably qualified person on the suitability of topsoil. Documentation of seeding, including seed mix, spreading rate, weather (i.e. when last rainfall occurred or forecasted).
RM 8 – Establishment of target vegetation	Assessment from suitably qualified person on erosion present. Completed BioCondition Assessment. Documentation of suitable water quality (surface water and groundwater) per PRCP Schedule. Certification from an appropriately qualified person that the landform has achieved a factor of safety greater than 1.5.
RM 9 – Retained infrastructure handover	Documentation of suitable water quality (surface water) per PRCP Schedule. Documentation of handover to landowner.

2.9.3 Maintenance

Maintenance will be undertaken where monitoring identifies any issues with rehabilitation where milestone criteria are not being met. Maintenance may be required due to milestone activities not achieving desired outcomes, or from natural disasters and other climate conditions such as fire.

Maintenance activities may include erosion remediation, reseeding or infill planting, and weed management.

2.9.4 Mining Lease and Environmental Authority Surrender

The mining leases and environmental authority for the project will be surrendered upon sign off of the completion of rehabilitation by the relevant departments.

2.9.5 PRCP Schedule Audit

A PRCP schedule audit will be undertaken every three years in accordance with Section 285 of the EP Act. The audit will include assessment of:

- what steps the holder has taken towards achieving milestones;
- whether the holder has complied with all the conditions imposed on the PRCP schedule;
- whether any information that has been given to the administering authority about rehabilitation is accurate; and
- whether the PMLUs are likely to be achieved, having regard to the rehabilitation that has and will be carried out.

2.9.6 PRCP Annual Return

The EA annual return will include an evaluation of the effectiveness of the PRCP schedule including environmental management carried out under the PRCP schedule for that year in accordance with Section 316J (3) of the EP Act. The evaluation will include:

- an assessment of whether any milestones to be completed under the PRCP schedule during the year have been met;
- an assessment of whether the holder has complied with the conditions imposed on the PRCP schedule; and
- submission of spatial information relating to the location of rehabilitation or improvement.

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Appendix 1 – PRCP Schedule

Appendix 2 – Final Landform and Cover Design

