

Chapter 13
Rehabilitation and closure

ESMERALDA GRAPHITE PROJECT

aarc ENVIRONMENTAL SOLUTIONS
APEM Group

GRAPHINEX

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Glossary, acronyms and abbreviations

Acronym and Abbreviation	Meaning
AARC	AARC Environmental Solutions Pty Ltd
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AHD	Australian Height Datum
ALC	Australian Land Classification
CEC	Cation Exchange Capacity
DETSI	Department of the Environment, Science, Innovation and Tourism
DNRME	Department of Natural Resources, Mines and Energy
DNRMMRRD	Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development
EA	Environmental Authority
EC	Electrical Conductivity
EIS	Environmental Impact Statement
EP Act	*Environmental Protection Act 1994*
EP Regulation	Environmental Protection Regulation 2019
ESA	Erosion Stability Assessment
ESP	Exchangeable Sodium Percentage
MAW	Mine affected water
NAF	Non-acid forming
NUMA	Non-use management area
PAA	Priority Agricultural Areas
PAF	Potentially acid forming
PAWC	Plant available water capacity
PDD	Pit dewatering dam
PLA	Priority Living Areas
PMLU	Post-mining land use
PRCP	Progressive Rehabilitation and Closure Plan
PWD	Process water dam
RA	Rehabilitation areas
RE	Regional Ecosystem

Acronym and Abbreviation	Meaning
RM	Rehabilitation milestones
ROM	Run-of-Mine
RPI	*Regional Planning Interests Act 2014*
SCA	Strategic Cropping Areas
SEA	Strategic Environmental Areas
SLSA	Soils and Land Suitability Assessment
SPC	Soil Profile Classes
SSMP	Soil Stripping and Management Plan
TOR	Terms of Reference
TSF	Tailings Storage Facilities
WEPP	Water Erosion Prediction Project
WRD	Waste rock dump

13 Rehabilitation and closure

This chapter outlines the key factors relevant to rehabilitation and closure for the Project and the approach to rehabilitation and closure to be taken by the Proponent. It draws on inputs from several other EIS chapters and appendices, in particular:

- Appendix T, Progressive Rehabilitation and Closure Plan, Planning Part;
- Appendix S, Erosion Stability Assessment (WEPP)
- Chapter 10, Land – geology, geomorphology, topography and soils;
- Chapter 14, Water resources;
- Chapter 15, Water quality;
- Chapter 16, Flooding and regulated structures;
- Chapter 17, Waste;
- Chapter 18, Flora and fauna;
- Chapter 19, Biosecurity; and
- Chapter 22, Hazards, health and safety

In drafting this chapter, the following rehabilitation related policies and guidance have been considered, where appropriate:

- Queensland Government, Rehabilitation – EIS information guidelines, ESR/2020/5308;
- Queensland Government, Progressive rehabilitation and closure plan (PRCP plans) – Statutory guideline, ESR/2019/4964;
- Queensland Government, Common issues with Progressive Rehabilitation and closure plan applications – Information Sheet, ESR/2021/5775;
- Queensland Government, Voids in Floodplains – Information sheet, ESR/2019/4966;
- Queensland Government, Non-use management areas – Information sheet, ESR/2019/4954; and
- Queensland Government, Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans – Information sheet, ESR/2024/6766.

13.1 Relevant policy and legislation

13.1.1 Progressive rehabilitation

In Queensland, mine rehabilitation is required under the *Environment Protection Act 1994* (EP Act). This Chapter has been prepared to assist the Department of the Environment, Tourism, Science, Technology and Innovation (DETSI) in carrying out the environmental objective assessment in respect of the environmental objective for land in Part 3 of Schedule 8 of the EP Regulation (that is, the activity protects the environmental values of land) by achieving the following relevant performance outcomes:

- activities that disturb land, soils, subsoils, landforms and associated flora and fauna will be managed in a way that prevents or minimises adverse effects on the environmental values of land; and
- areas disturbed will be rehabilitated or restored to achieve sites that are safe and stable, where no environmental harm is being caused by anything on or in the land, and that are able to sustain an appropriate land use after rehabilitation or restoration.

In late 2018, amendments to the EP Act implemented key elements of the State Government's 'Mined land rehabilitation policy' (Queensland Government 2018) which ensures that land disturbed by mining activities is progressively rehabilitated to a safe and stable landform that does not cause environmental harm and is able to sustain an approved post-mining land use. The amendments gave rise to a prescriptive mine closure regime, incorporating enforceable progressive rehabilitation milestones for all areas of potential impact. As a requirement of these amendments, a proposed PRCP for the Project must be prepared that complies with Division 3, Part 2

- outline each proposed post-mining land use (PMLU) and, where applicable and approved, any non-use management area (NUMA) for the Project site;
- include a PRCP schedule of binding rehabilitation milestones for each PMLU and, where applicable and approved, any NUMA management milestones, including dates for completion of each milestone and criteria to demonstrate achievement of the milestones. The PRCP schedule must provide for the completion of rehabilitation or management milestones as soon as practical after the land becomes 'available for rehabilitation';
- detail and justify the rehabilitation methods and techniques to achieve the rehabilitation and management milestones;
- detail the consultation undertaken with the community when preparing the PRCP as well as the ongoing consultation in relation to the rehabilitation to be carried out; and
- include various management plans in relation to water and waste management, revegetation, mine closure and rehabilitation monitoring.

DETSI will assess and decide whether to approve the PRCP. If it is approved, the Proponent will be required to implement the PRCP and meet the rehabilitation milestones set out in the PRCP schedule, and DETSI will be empowered to enforce the rehabilitation milestones.

A draft PRC Plan (Appendix T) will be provided with this EIS.

13.1.2 Financial provisioning

At the time an Environmental Authority (EA) is issued for the Project, the estimated cost to rehabilitate and restore the environment in relation to the resource activities under the EA will be calculated, and an application will be made to DETSI for a decision on the estimated rehabilitation cost in accordance with section 298 of the EP Act. As per section 297 of the EP Act, it will be a condition of the EA that the Proponent must not carry out a resource activity unless an estimated rehabilitation cost decision is in effect and the Proponent has made the relevant contribution to the financial provisioning scheme, which will secure the Proponent's rehabilitation obligations.

13.2 Rehabilitation planning

13.2.1 Current land use and land suitability

The current land use of the Project site is mapped as predominantly 'low intensity cattle grazing' on native pastures, as well as a small section classified as a lake, and a marsh/wetland designation for a riparian zone. Land use is classified according to the Australian Land Use and Management Classification version 8 (ABARES 2016). The land in and surrounding the Project area is within the Croydon Shire Planning Scheme (2019) and is zoned as 'Rural'.

The land suitability assessment indicated that most of the land, approximately 2,407.3 ha in the disturbance area, is classified as Agricultural Land Class (ALC) A1, which is suitable for a wide range of current and potential broadacre and horticultural crops. Approximately 4.1 ha in the disturbance area is classified as ALC C2, which is suitable for grazing native pastures, with or without the introduction of pasture species, and with lower fertility soils than class C1.

A very small proportion of the land, 2.4 ha in the disturbance area, is classified as ALC B, which is suitable for sown pastures and may be suitable for a wider range of crops.

13.2.2 Areas of Regional Interest

The *Queensland Regional Planning Interests Act 2014* (RPI Act) regulates impacts from resource and other regulated activities on identified areas of regional interest. This includes Strategic Cropping Areas (SCA), Strategic Environmental Areas (SEA), Priority Agricultural Areas (PAA) and Priority Living Areas (PLA).

The Project area is not located in a Priority Agricultural Area, Strategic Cropping Area, Strategic Environmental Area or Priority Living Area, as defined by the Regional Planning Interests Act 2014.

13.2.3 Post-mining land use

The intent of the Proponent is to reinstate the existing land use of low intensity grazing on native vegetation by returning the majority of the site to similar vegetation type and land class suitability to that existing prior to mine disturbance. The PMLUs proposed for the Project are in accordance with section 126C(1)(d) of the EP Act.

In accordance with the Queensland Government's objectives defined in the Mined Land Rehabilitation Policy (Queensland Government 2018), the general post-mining rehabilitation goals for the Project are to leave an area that is safe, stable, does not cause environmental harm and is able to sustain the PMLU.

The proposed PMLUs have been developed with consideration for the existing local and regional land use, consultation with local community, the *Croydon Shire Planning Scheme* (Croydon Shire 2019), local ecological values, natural site characteristics and the landform features proposed to remain at closure.

13.2.3.1 Grazing native vegetation (low intensity)

A PMLU of low intensity 'grazing native vegetation' is a feasible land use for most of the Project site. The current land use for the area of the Project is low intensity cattle grazing on predominantly native pastures. However, as is often the case in many parts of Queensland, the current land use is one that demonstrably sustains a viable, grazing land use of sufficiently low intensity to address the limitations identified within the land suitability assessment. As identified within Section 3.2 of the PRCP Guideline, the land use prior to the mining activity commencing is a key consideration in determining an appropriate PMLU.

The PMLU of low-intensity cattle grazing aligns with the outcomes of the pre-mining soil and land suitability assessment (GT Environmental 2026). Although the majority of the disturbance area is mapped as ALC A1 land, the current prevailing land use across the Project area is cattle grazing. As such, the rehabilitated landform with a PMLU of grazing native vegetation is intended to achieve a pre-mining land suitability classification similar to the pre-mining situation.

Rehabilitated areas, including the mine infrastructure areas, levee, the disturbance footprint of the southeast waste rock dump (WRD) and tailings storage facilities 1, 2 and 3 (TSFs) following their removal, will be reshaped and revegetated to support low-intensity cattle grazing. The open cut pit will be backfilled and revegetated with native pasture species suitable for the target PMLU.

Reinstatement of the prevailing low intensity grazing land use is considered a feasible PMLU for most of the Project site.

13.2.3.2 Grassland

At the end of the mining phase, a mining pit will exist. An options analysis was undertaken to identify and assess closure options with the preferred outcome being to backfill the pit in a managed way to address the identified potential groundwater impact concerns. Key advantages of this approach include significantly minimising the waste rock dump and TSF footprints at closure, as well as maximising the area of preferred 'grazing native vegetation' PMLU.

However, the retained waste rock dump and final cell of the TSF are not considered amenable to a 'grazing native vegetation' PMLU and are proposed instead to be returned to a 'grassland' PMLU to provide for additional management controls commensurate with the identified risks. Grassland is considered as a variant of the low intensity cattle grazing land use, applied where slopes exceed those typically suited to the proposed land use, and therefore requiring careful management controls. This PMLU is proposed for TSF4 (retained) and the southwestern WRD as these landforms will be elevated with slopes greater than 15%, making them unsuitable for safe or sustainable grazing.

While the Australian Land Use Management Classification (ABARES 2016) defines the nominated land use for the area as 'grazing native vegetation, the intent of the grassland PMLU is for these areas to be rehabilitated with vegetation species composition and distribution consistent to the surrounding grazing land use, while excluding cattle access to these areas.

The circumference of the retained WRD and TSF will have cattle-proof fencing erected, to ensure no grazing occurs on these landforms. This fencing will be designated as 'retained infrastructure'

13.2.3.3 Riparian ecosystem

An unnamed tributary (stream order 3) reporting to Warrigal Creek intersects the proposed Project mining pit location. To maintain hydrologic connectivity between the unnamed tributary and Warrigal Creek, and to prevent inundation of the mining pit, the Project includes a proposed 1.8 km long permanent diversion. A riparian ecosystem is therefore proposed as a PMLU of the permanent diversion that will aim to achieve similar conditions to the existing riparian environment located adjacent to the bank of an unnamed tributary of Warrigal Creek.

As noted at Section 13.2.1, the current land use of the regional area is low intensity cattle grazing on predominantly native pastures. While there are some minor identified areas of riparian vegetation, these are still subject to grazing pressures as no fencing infrastructure exists to exclude cattle.

13.2.3.4 Retained infrastructure

Retained infrastructure may include roads, tracks and buildings that are complementary to the predominant grazing PMLU proposed, or for access and safety reasons.

Retained Project infrastructure components proposed for retention to support the grazing PMLU and to be transferred to the landholder upon surrender include:

- cattle exclusion fencing around the area of:
    - tailings storage facility Cell 4 (RA9); and
    - the southwestern waste rock dump (RA8);
- sealed roads, access tracks and haul roads;
- the airfield and helipad;
- accommodation camp;
- solar array;
- diesel station; and
- HV substation.

A signed landholder agreement has been received by Graphinex, and will be subject to acquisition of the land by the Proponent, and the establishment of a new entity:

(a) consents to the permanent infrastructure identified in this letter remaining on the Land after the cessation of mining activities for the Project; and

(a) undertakes to accept responsibility, liability and ongoing maintenance obligations for the permanent infrastructure following the surrender of MLs 100430 and 100431 by Qld Aus Graphite Pty Ltd.

The retained infrastructure will provide ongoing benefits post cessation of mining and support the proposed post-mining land uses. The roads will provide improved access for land management, grazing and emergency services The retained airfield and helipad will provide aviation access to support emergency responses and access to the remote location. Meanwhile, the solar array will provide a long-term source of renewable electricity to support grazing operations in a remote location.

13.2.3.5 Retained water storage

Sediment dam 3 will be retained post-closure. Retention of the water storage structure has been agreed through a signed landholder agreement as stated in Section 13.2.3.4.

The intended PMLU for the retained water storage is to provide a water source meeting the required objectives for stock watering, and which is complementary to the broader grazing native vegetation land use. The remaining water storage structures (the raw water dam, the clean water sump, sediment dams 1, 2 and 4, process water dam, pit dewatering dam and MAW sump) will be decommissioned and made safe and suitable for the low intensity grazing native vegetation PMLU.

13.2.3.6 Consistency with Schedule 8A of the EP Regulation

The proposed PMLUs for the Project will achieve the performance objectives set out in Table 1, item 1 of Schedule 8A of the EP Regulation:

a) Each PMLU is viable, having regard to the use of the land in the surrounding region; and;

   i) the use is consistent with how the land was used before a mining activity was carried on out the land.

The PMLUs for the Project area are shown in Figure 13-1 and Figure 13-2.

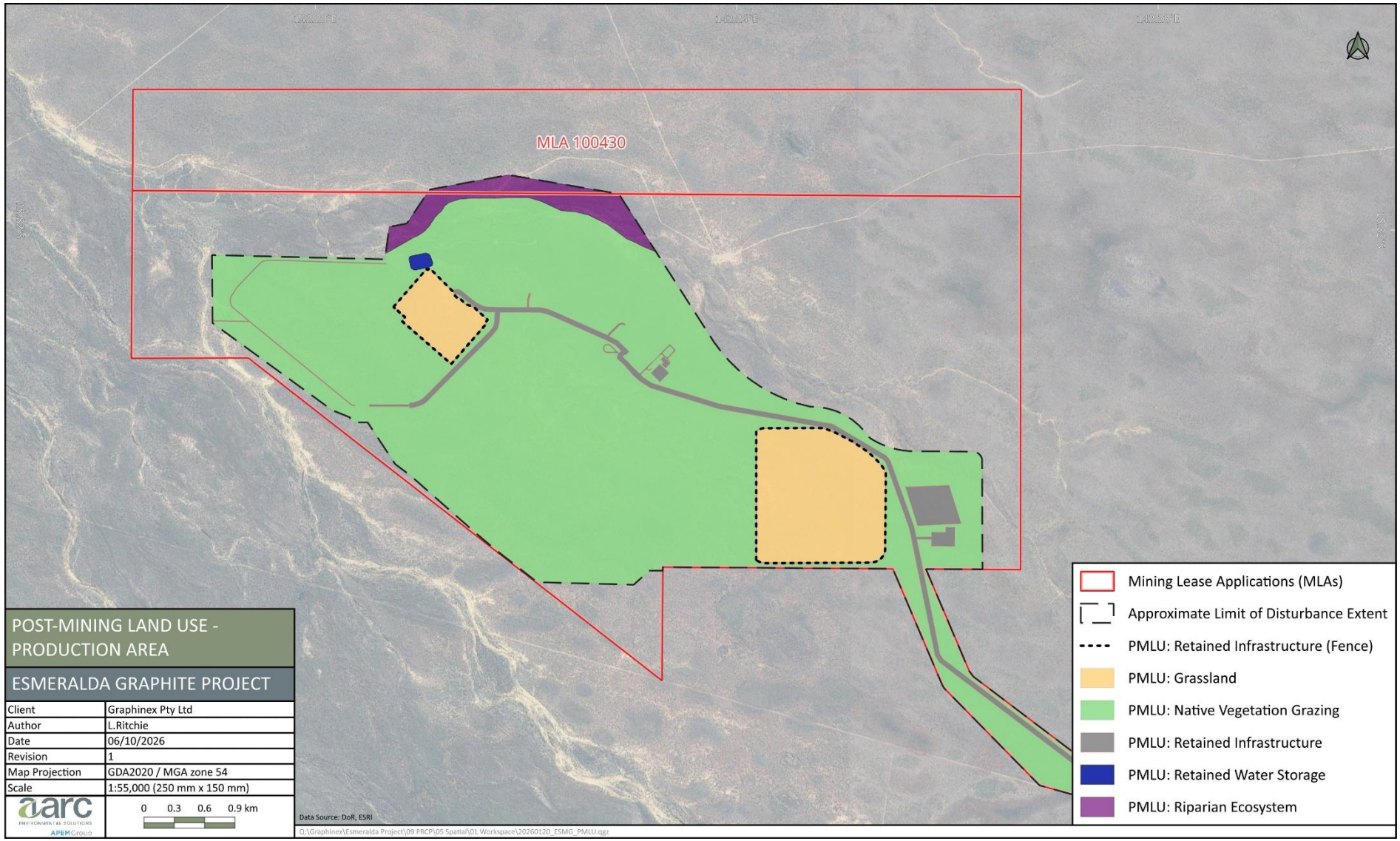


Figure 13-1: Post-mining land use - production area

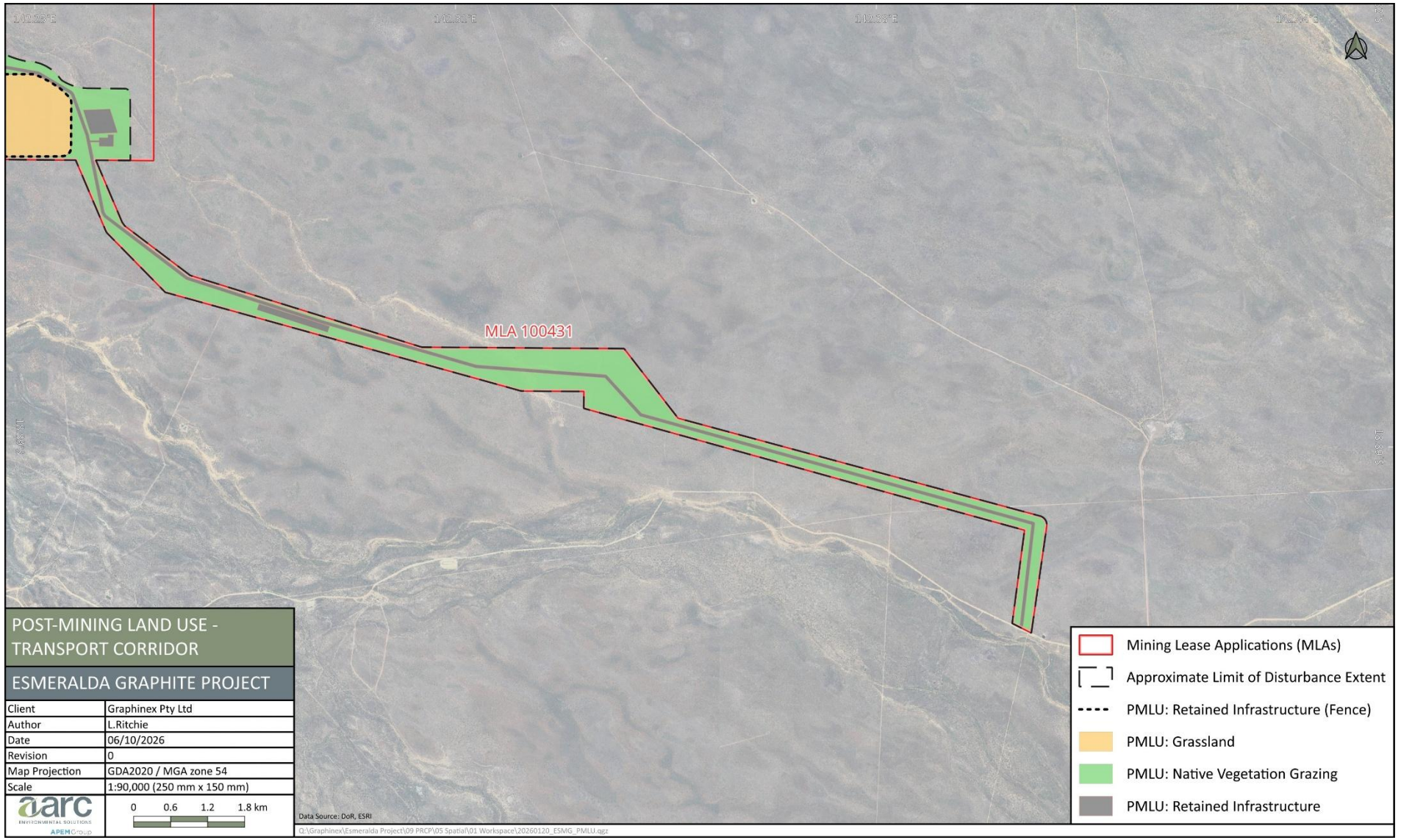


Figure 13-2: Post-mining land use - transport corridor

13.2.4 Rehabilitation areas

To allow the development of a PRCP schedule that satisfies the requirements of the PRCP Guideline, discrete rehabilitation areas (RAs) have been defined for the Project. An RA is defined by the EP Regulation as an area of land in the PMLU to which a rehabilitation milestone for the post-mining use relates. RAs are nominated for areas of disturbance within the Project with consideration for the disturbance type and the proposed PMLU. There are 11 RAs proposed for the entire Project area and are described in Table 13-1 and shown in Figure 13-3 and Figure 13-4.

Table 13-1: Project rehabilitation areas (RAs)

Reference	Rehabilitation area	Description of RA	PMLU	Area (ha)
RA1	Mine infrastructure area	• Mineral processing plant, ore handling facilities and associated infrastructure • Sewage treatment plant and effluent irrigation infrastructure • Fencing and magazine	Grazing native vegetation (low intensity)	18.
RA2	Retained infrastructure	• Mine access roads and track • Airfield and helipad • Cattle exclusion fence • Solar array and associated infrastructure • Workers village accommodation	Retained Roads and buildings	175
RA3	Supporting Surface Activities (Buffer disturbance area)	• Minor areas of surficial disturbance arising from approved supporting activities requiring rehabilitation; including topsoil stockpiles on natural surfaces	Grazing native vegetation (low intensity)	1295.1
RA4	Rehabilitated water management infrastructure	• Process water dam • Raw water dam • Clean water sump • Sediment dams 1, 2, 4 • Pit dewatering dam; and • MAW sump	Grazing native vegetation (low intensity)	25.3
RA5	Retained water storages (for stock watering)	• Sediment dam 3	Retained water storage	2.95
RA6	Backfilled void	• Void backfilled with treated tailings material and waste rock to approximate pre-existing surface level • Rehabilitated levee	Grazing native vegetation (low intensity)	79.7
RA7	Rehabilitated levee	• Rehabilitated levee	Grazing native vegetation (low intensity)	11.6
RA8	Rehabilitated waste rock dump footprint	• Footprint of waste rock dump used for backfilling void	Grazing native vegetation (low intensity)	58.9
RA9	Retained Waste Rock Dump	• Out-of-pit waste rock dump	Grassland	42.6

Reference	Rehabilitation area	Description of RA	PMLU	Area (ha)
RA10	Retained Tailings Storage Facility	• Retained TSF	Grassland	157.1
RA11	Rehabilitated TSF footprint	• TSF footprint following relocation of treated tailings	Grazing native vegetation (low intensity)	486.1
RA12	Permanent diversion	• Disturbance area associated with the diversion	Riparian ecosystem	60.8
Total Disturbance				2,413.7

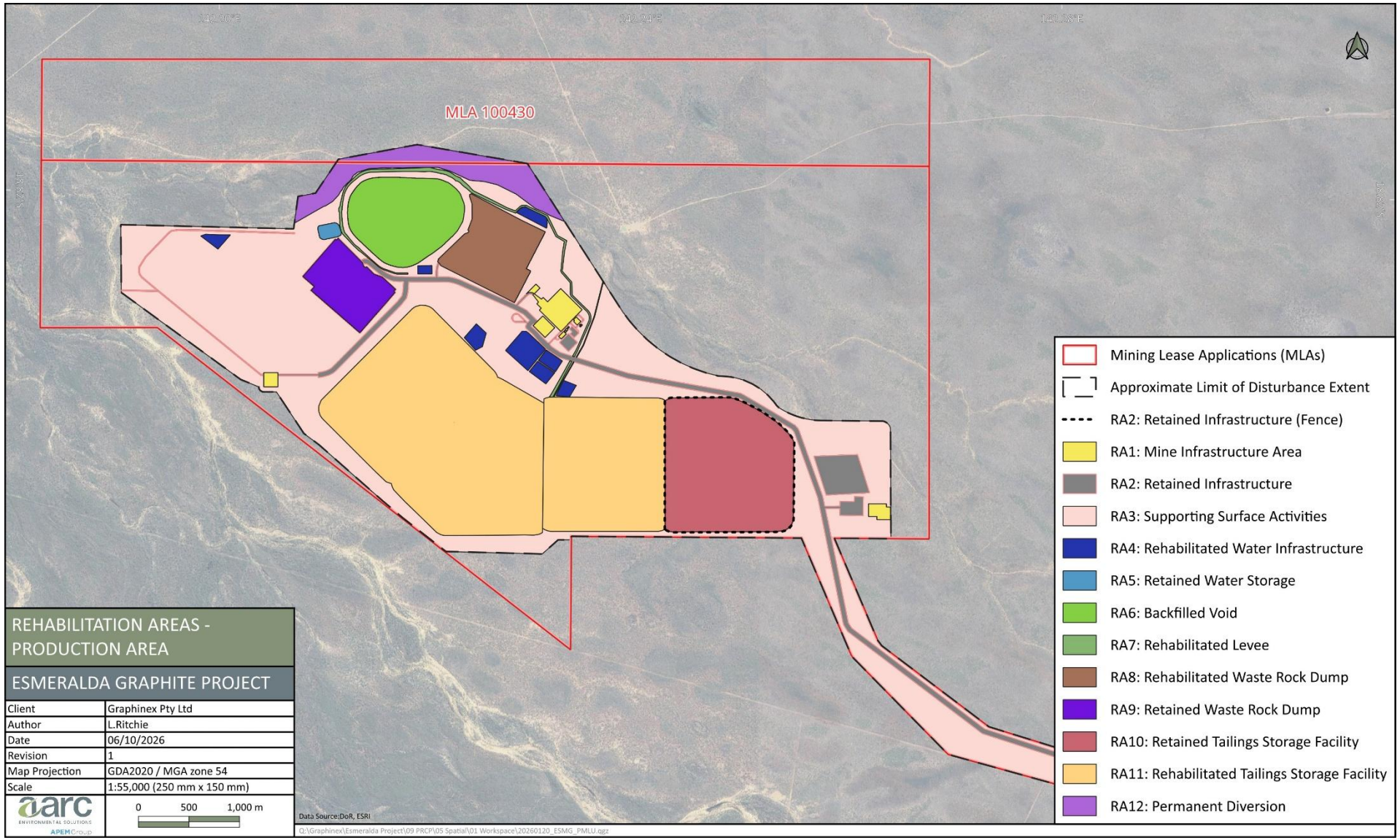


Figure 13-3: Rehabilitation areas - production area

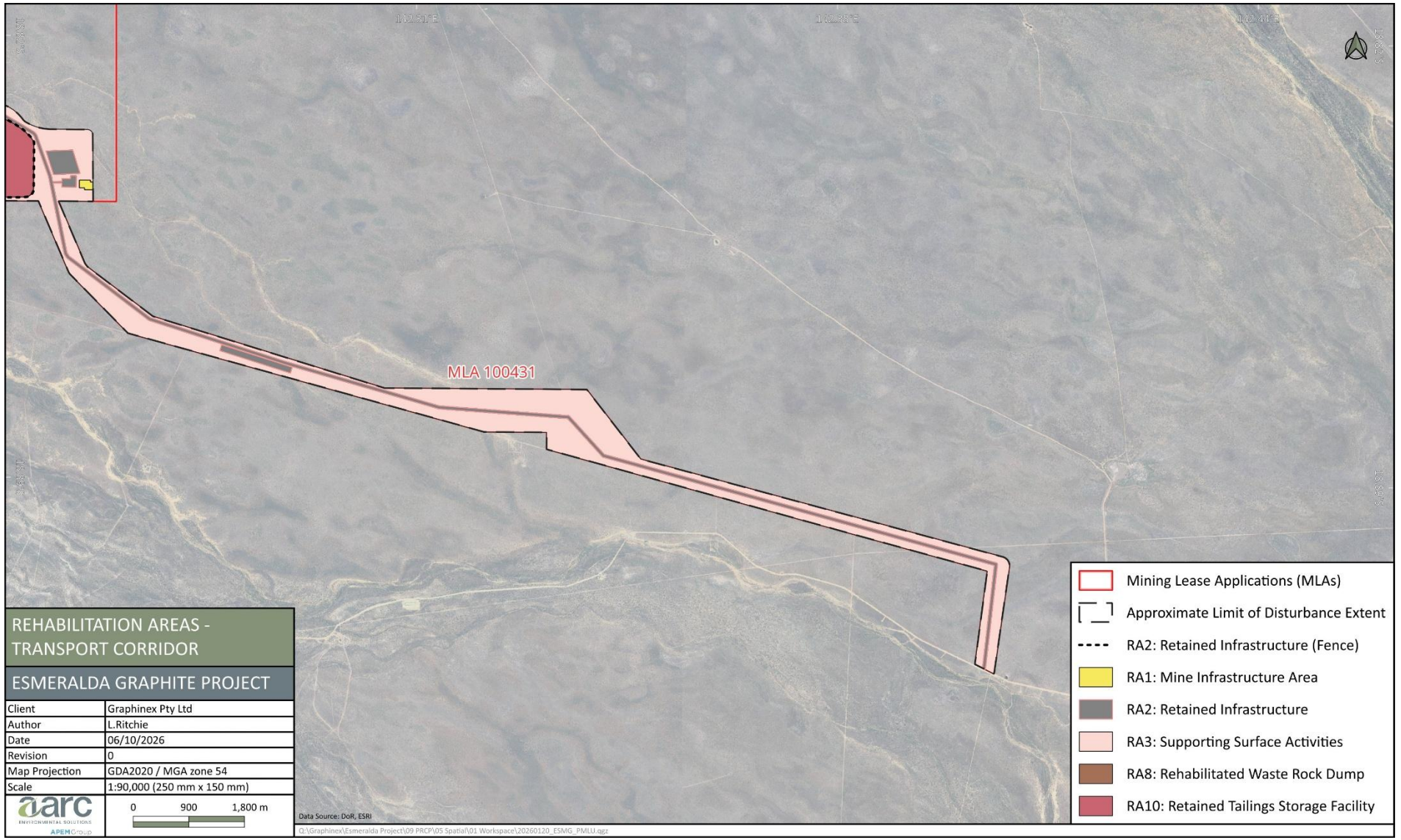


Figure 13-4: Rehabilitation areas - transport corridor

13.2.5 Rehabilitation milestones and milestone criteria

In accordance with the PRCP Guideline, milestone criteria are used to demonstrate the completion of a specific milestone and should be appropriate for achieving the milestone and facilitate achieving subsequent rehabilitation milestones (RM). Milestone criteria are preferably specific, measurable, achievable, realistic and timely. The final milestone criteria should:

- be outcome-based (linked to the end land use);
- be flexible to adapt to changing circumstances;
- be able to evolve as the mine life progresses;
- include metrics suitable to demonstrate that rehabilitation is trending positively;
- undergo periodic review; and
- include a measurement approach that details how the criterion will have been met (CoA 2016, ANZMEC & MCA 2000).

Milestone criteria have been identified for the PRCP that provide a clear definition of milestone completion and successful rehabilitation for each rehabilitation area. Completion criteria for each RA will be used as the milestone criteria for the final milestone in the proposed schedule and will demonstrate achievement of the PMLU to a stable condition at surrender. The detailed rehabilitation milestone criteria nominated for the PRCP are provided in Appendix T, Progressive Rehabilitation and Closure Plan.

13.2.5.1 Rehabilitation timeframes

RMs are required to be achieved as soon as practicable after land becomes available for rehabilitation. Land is considered to become available for rehabilitation at the completion of mining, except where land is being used for operating infrastructure or topsoil stockpiles, or is identified as being 'retained infrastructure' post-closure.

Rehabilitation milestone timeframes have been developed with consideration for the size of the rehabilitation area, the applicable milestone activities and interim rehabilitation activities that are scheduled to occur or anticipated to be required before the area becomes available for rehabilitation. Milestones that involve revegetation activities, including monitoring of revegetation, make provision for unfavourable growing seasons and unforeseen extreme events such as droughts or storms that could negatively impact vegetation establishment. As a result, milestone timeframes are extended to ensure achievement.

A risk assessment for rehabilitation activities has been undertaken for the Project and the risks identified have informed the timeframe assigned to each milestone. The Project risk assessment and the RM timeframes are provided in Appendix T, Progressive Rehabilitation and Closure Plan.

13.2.5.2 PRCP Schedule

The development of a milestone schedule is a requirement of the PRCP. The schedule describes time-based milestones for achieving each PMLU for the Project. The rehabilitation milestones must be achieved as soon as practicable after land becomes available for rehabilitation. Rehabilitation milestone timeframes have been developed considering the size of the rehabilitation area, the activities applicable to the milestone and interim rehabilitation activities that are scheduled to occur or anticipated to be required prior to the area becoming available for rehabilitation.

The detailed milestone schedule in the approved form is included within Appendix T, Progressive Rehabilitation and Closure Plan.

13.3 Rehabilitation strategy

13.3.1 Waste rock dumps

Two waste rock dumps (WRDs) will be required during the operational life of the mine to store waste materials excavated from the pit. One of the WRDs will be utilised to backfill the pit and will be located immediately to the southeast of the pit. Waste rock material will also be drawn from the WRD located to the southwest of the pit. However, there will still be a surplus of waste rock material resulting from the Project and resident within this WRD.

Once backfilling of the pit is complete, the WRD located to the southeast of the pit will be decommissioned and rehabilitated to 'grazing native vegetation' (low intensity) PMLU. Meanwhile the retained WRD located to the southwest of the pit will be reshaped and rehabilitated to 'grassland' PMLU.

The final waste rock dump landform for the retained WRD has been based on the outcomes of an erosion stability assessment (ESA) (AARC 2026), utilising a Water Erosion Prediction Project (WEPP) model. This is discussed further in Appendix T, Progressive Rehabilitation and Closure Plan, and Appendix S, Erosion Stability Assessment (WEPP). The WRD was determined to be a low-risk landform as the overburden and waste rock has been classified as NAF-Barren and suitable as bulk fill or cover material with no acid mine drainage management required RGS (2026). Based on the ESA outcomes, the retailed WRD will have typical slope gradients of less than 30% and an elevation above natural topography of 60 m.

The WEPP model utilised soil profiles developed based on soil and subsoil sampling and analysis results from the Soils and Land Suitability Assessment (GT Environmental, 2026). Two WRD slope profiles, WRD-S1 and WRD-S2, were assessed, both with a top elevation of approximately 185 mAHD and base of approximately 125 mAHD, giving a slope height of 60 m.

Rehabilitation of the WRDs will involve reshaping, following which growth media will be placed as the final surface layer to promote vegetation establishment and enhance soil function. The top surface will be relatively flat but domed to prevent rainfall runoff from ponding. A 70% groundcover is required to achieve the target erosion rate for the WRD slopes, which can be achieved through a combination of revegetation and, where appropriate, use of a rock mulch layer.

13.3.2 Tailings storage facility cells

The Project will have four tailings storage facility cells, TSF 1, TSF2, TSF3 and TSF4 during the operational life of the mine to store tailings excavated from the pit. Tailings from three of the tailings cells will be utilised to backfill the pit at closure. Tailings will initially be drawn from TSF1, TSF2, and TSF3 and then, depending on the target tailings backfill level, from TS4. Following removal of the tailings, TSF1, TSF2 and TSF3 will be decommissioned and rehabilitated, with the seepage underdrainage infrastructures such as HDPE liners and pipes, removed and disposed of within the backfilled pit. There will still be a surplus of tailings within TSF4 following backfilling of the pit. Once pit backfilling is complete, TSF4 will be finally capped and rehabilitated to grassland PMLU.

Geochemical assessments have characterised the tailings as being typically alkaline with low salinity and low acid neutralising capacity. Should the tailings generate any contact water or seepage, this would be moderately saline (RGS 2026).

The majority of tailings samples are classified as PAF. One of the tailings samples showed relatively low concentrations of sulphide sulphur, although a low neutralising capacity is consistent across all samples. Based on the alkaline pH values, it is likely that some of the inherent sulphide sulphur is slow to react. RGS (2026) determined that the sulphur is in the form of pyrrhotite and elemental sulphur.

Initial contact water may contain slightly elevated concentrations of aluminium; however, all other metal/metalloid concentrations are expected to be low. If the tailings are left unmanaged and allowed to oxidise, several metals/metalloids, including aluminium, boron, cadmium, copper, lead, manganese, nickel, and zinc could mobilise into pore water under weakly acidic conditions (RGS 2026).

Leachate from the tailings is expected to contain low concentrations of soluble metals and metalloids when generated under saturated (anoxic) conditions.

Physically, the tailings behave predominantly as sand; as such they are likely to be permeable, drain quickly, and have low water retention characteristics. Overall, the tailings are classified as Emerson Class 3 or 4 and are expected to have good structure and stability and unlikely to be sodic or dispersive.

The TSF cells will be designed to contain tailings at the expected dry densities in the range of 1.35 to 1.50 t/$m^{3,}$ targeting a minimum average in-situ dry density of 1.45 t/m^3 (SRE 2026). An HDPE lining will be placed on the base and sides of the TSF, and embankment raises will be constructed by downstream raising.

13.3.2.1 Capping and rehabilitation

TSF 1, TSF2, and TSF3 will commence deconstruction towards the end of mining with all the embankment construction materials and tailings returned to the mine pit. The three TSFs will be rehabilitated to 'grazing native vegetation – low intensity' PMLU.

TSF4 will be reshaped with the embankments graded to the design slope gradient with a low permeability and capillary break engineered layer installed above the tailings, and a self-draining upper surface installed. The upper surface will comprise of waste rock materials and soil, of approximately 1.5 m and 0.5 m respectively. The capping layer design will be in accordance with the relative risk ranking of the TSF.

The underdrainage collection system will be retained in place following closure to ensure long term geotechnical stability. The combination of an engineered impermeable layer and the final rehabilitated TSF surface, shaped to promote surface drainage and prevent ponding of rainfall, will ensure minimal risk of TSF water drainage. Water quality at the outlet of the drainage system will be monitored against the nominated WQOs.

The MAW sump, which receives water from the TSF underdrainage system, will be retained post-closure until monitoring confirms that water is no longer reporting from the TSF underdrainage system, after which the MAW sump will be rehabilitated.

Following installation of the capping layer, the TSF will be subject to surface preparation and revegetation works as outlined at Section 13.3.9 and then monitoring and maintenance provisions as detailed in Appendix T, Progressive Rehabilitation and Closure Plan.

ESA (AARC 2026) WEPP model was also used to base the final TSF landform. The TSF4 cell will be retained with an engineered waste rock and soil cover sufficient to reduce the risk of the TSF, following closure, to a medium-risk landform for the purposes of WEPP modelling.

Two TSF slope profiles, TSF-S1 and TSF-S2, were assessed, both with a top elevation of approximately 149 mAHD and base of approximately 132 mAHD, giving a slope height of 17 m and 18 m. Both slopes were a straight slope, running continuously for approximately 47 m, with a slope percentage of 36% for TSF-S1 and 38% for TSF-S2.

Groundcover of 55% should be sufficient at the TSF during the early establishment of groundcover on the slopes, with a long-term target of 85% to achieve landform stability. It is considered that these cover requirements can be achieved through adequate revegetation efforts. The TSF design parameters and capping and rehabilitation are discussed further in detail in Appendix T, Progressive Rehabilitation and Closure Plan.

13.3.3 Backfilled void and levee

On completion of mining operations, the mine void will be completely backfilled, leaving no residual void and, apart from a slight increase in elevation to ensure no localised surface ponding, will generally mimic the pre-mining topography; and retain the pre-mining localised drainage system.

Backfilling of the void will initially utilise consolidated tailings materials from the initial three TSF cells to a level of approximately 123 m AHD following by NAF-Barren waste rock material from the southeastern waste rock dump. Backfilling will be conducted in two phases:

- Tailings will initially be deposited from the base of pit (-157 mAHD) to a level of approximately 42 mAHD. Tailings will be deposited in a dry state using excavators and trucks from at or just before the end of mining in 2065 until 2075. A low permeability capping layer will then be constructed on top of the tailings at an elevation of 42 mAHD to provide hydraulic isolation.
- Waste rock will then be placed on top of the tailings' low permeability capping layer (42 mAHD) and up to ground level (123 mAHD) from 2075 until 2081. The final stage of backfilling will incorporate a capping layer of 2 m depth comprising 1.5 m of suitable waste rock and 0.5 m of growth media. The surface of the waste rock will be engineered to facilitate surface water drainage and minimise infiltration into the backfilled final void. The backfilled material will be compacted under the trafficking of heavy machinery and an assessment of likely settlement will guide the final level of backfilling such that, post-settlement, the backfilled void surface will remain sufficiently proud of the surrounding landscape that the closure landform feature will not pond or inhibit surface drainage.

The backfilled void is supported by an adjoining levee constructed to exclude floodwaters from entering the pit during the Project's operational phase. The levee will be removed once backfilling of the pit has reached a point that floodwater ingress is no longer a risk. Any surplus material from the levee will be used within the pit backfilling area or other rehabilitation.

The areas of the levee and backfilled pit, once backfilling has reached the design level, will be spread with suitable growth media, cultivated using dozer or grader tyres or other suitable available farming equipment, and then seeded in accordance with the revegetation methodology outlined in the draft PRC Plan (Appendix T).

13.3.4 Permanent diversion

As stated in Section 13.2.3.3, a 1.8 km long permanent diversion is proposed of the unnamed tributary. The unnamed tributary is a determined watercourse under the Water Act 2000 and therefore requires a permanent watercourse diversion designed in accordance with the requirements of the DNRMMRRD *Guideline: Works that interfere with water in a watercourse for a resource activity— watercourse diversions authorised under the Water Act 2000* (DNRME, 2019). As stated in Section 13.3.3, following closure, the levee will be removed to allow for reinstatement of the flood plain on both banks of the watercourse diversion.

As it is a permanent diversion, the rehabilitation will achieve similar conditions to the existing creek riparian environment to provide ecological connectivity values for local flora and fauna species. Disturbance of existing vegetation within the proposed diversion floodplain areas will be minimised during construction. This is to reduce the required extent of rehabilitation and revegetation following construction.

Rehabilitation will include establishment of vegetation across the diversion channel, banks and associated riparian areas to promote bank stability and minimise erosional processes. The establishment of trees, shrubs and grasses will provide erosion resistance and contribute to the long-term stability of the diversion channel and banks.

Species selection for revegetation of the diversion is proposed with consideration of the dominant existing watercourse vegetation (i.e., RE 2.3.26a - River Red Gum woodland with Melaleuca spp.).

Three revegetation zones have been identified numbered Zone 0 to Zone 2 described as per Table 13-2.

Table 13-2: Description of rehabilitation zones and revegetation strategy

Rehabilitation Zone	Name	Locality	Target RE	Ground Layer	Mid and Upper Layers
0	Channel bed	Low flow channel bed	-	N/A	N/A

Rehabilitation Zone	Name	Locality	Target RE	Ground Layer	Mid and Upper Layers
1	Channel banks	Low flow channel banks	2.3.26a[1]	Initial seeding of quick establishing, non-native cover crop, followed by seeding of locally native ground species.	No tree or shrub species proposed for the channel banks.
2	Floodplain revegetation	High flow channel banks	2.3.26a	Initial seeding of quick establishing, non-native cover crop, followed by seeding of locally native ground species.	Seeding of locally native shrub and tree species associated with the RE.

[1]Desirable RE only. Subject to change during detailed design due to seed availability or herbarium map changes.

A detailed seed mix will be developed during the detailed design process with the general aim to include a fast-establishing cover crop to provide initial stabilisation of the disturbed areas, and a mix of native vegetation to provide long term ground stability following establishment of the cover crop and woody vegetation. Seed collecting under appropriate approvals will be carried out well in advance of earthworks (if possible) and timed to match the seasonal seed drop of the target species. Seeding will be targeted for late spring or early autumn to avoid high intensity rainfall events that may provoke erosion. Watering may be required after placement of seeds depending on the time of year and climate conditions.

Performance criteria for revegetation have been developed to monitor the success of rehabilitation following the implementation of the diversion remedial works and is discussed in Appendix T.

13.3.5 Mine infrastructure areas

The major infrastructure facilities proposed at the Project site include:

- mineral processing plant;
- ROM pad;
- accommodation;
- magazine;
- solar array;
- diesel station;
- HV Substation;
- crib;
- first aid;
- administration;
- helipad; and
- haul roads, internal roads and access tracks.

Most of the mine infrastructure areas will be decommissioned and rehabilitated once mining operations have ceased. Where agreements have not been reached to retain infrastructure, that infrastructure will be removed from site in an appropriate manner.

Agreement has been reached with the landowner to retain the following infrastructure post closure:

- access roads and tracks;
- the airstrip;
- helipad;
- solar array;
- accommodation;
- cattle exclusion fencing around the area of RA9 and RA10
- diesel station; and
- HV Substation

In the absence of a continuing use for the Project's buildings post-closure, all buildings and infrastructure (including footings and foundations) will be demolished and, if comprising clean construction/demolition waste disposed of on site, or alternatively removed from site. Prior to disposal, all wastes will be assessed and classified in accordance with the Environmental Protection (Waste Management) Regulation 2000. Building

footings will be excavated to a depth of at least 1 m below ground level. Disturbed areas will then be recontoured to match the surrounding topography and revegetated.

Roads and tracks that are not required post-closure will be reshaped, topsoiled, and ripped and revegetated. All workshops, chemical and fuel infrastructure will be removed from site at completion of mining and sold, recycled or appropriately disposed of to a facility authorised to accept such waste.

A land contamination assessment will be undertaken for all areas associated with workshops and chemical/fuel storages. Contaminated materials will either be remediated in situ or excavated and disposed of to an appropriately licensed facility.

Plant and equipment footings will be excavated to a depth of at least 1 m below ground level. Disturbed areas will then be recontoured to match the surrounding topography and revegetated.

13.3.6 Water management and water storage infrastructure

A water management system has been developed for the Project to preserve the environmental values of the receiving environment. There are several water management features associated with the project – sediment dams, mine affected water (MAW) sump, clean water sump, process water dam (PWD), pit dewatering dam (PDD) and raw water dam.

Post-closure, the majority of the site will return to its pre-existing drainage condition with the exception of Sediment dam 3.

Post-closure surface runoff will drain from rehabilitated landforms along natural surface water flow pathways, including through the naturally lower topography associated with the existing drainage pathway, towards the receiving environment.

The Project does not propose any controlled releases to surface water or groundwater. Potential uncontrolled releases within retained water management infrastructure include seepage, overtopping and dam break events associated with site water management infrastructure.

Sediment dam 3 will be retained post closured as a stock water dam or water storage able to sustain a stock water quality. All the other water management infrastructure will be decommissioned and rehabilitated.

At closure, water remaining within the water storages proposed for decommissioning will be managed through evaporation, following which the water storages will be decommissioned and rehabilitated. The liners within the water storages will be removed as part of decommissioning and, where they cannot be recycled, will be collected and disposed of off-site by a licensed waste contractor to an approved waste facility.

At closure, the MAW sump will continue to receive water from the retained TSF underdrainage system. Water within the MAW sump will be managed through evaporation until monitoring confirms that water is no longer reporting from the TSF underdrainage system, after which the MAW sump will be decommissioned and rehabilitated. The liner within the MAW sump will be removed and managed as described above.

13.3.7 Final landform design

The final landform design incorporates the key landform features remaining at closure (Figure 13-5). These include:

- retained water storages (RA5);
- the backfilled void (RA6);
- the retained waste rock dump (RA9);
- the retained tailings storage facility cell (RA10); and
- the permanent diversion (RA12).

At closure, the backfilled pit will have a final landform similar to the existing landform, sitting slightly proud of the existing surface to allow for settlement. The retention of a single remaining TSF cell and waste rock dump post-closure will alter the existing topography, however the revegetation and sloping of these landforms will not create a significant landform impact. The permanent diversion will also alter the final topography, however it will have a maximum depth of approximately 1 m, with the design criteria of mimicking the functionality of the existing watercourse and therefore will not result in significant impacts.

The remaining rehabilitation areas that have been identified comprise the areas that will exist at closure in a landform stage similar to, if not identical to, the pre-existing landform. These include:

- the mine infrastructure area (RA1);
- 'retained infrastructure', comprising mine access roads, tracks and the airfield (RA2);
- the supporting service activities area (RA3);
- rehabilitated water management infrastructure (RA4);
- the rehabilitated waste rock dump footprint (RA8); and
- the rehabilitated TSF footprint (RA11).

13.3.8 Contaminated land assessment

Contaminated land assessments will be undertaken by an appropriately qualified person confirming the land does not present an unacceptable risk to proposed future land uses or the environment. Any identified contaminated material incompatible with the proposed PMLU will be either treated in situ or on-site, confined by burial, or removed, transported to an approved landfill for disposal or alternatively risk assessed and listed on the environmental management register to the extent necessary.

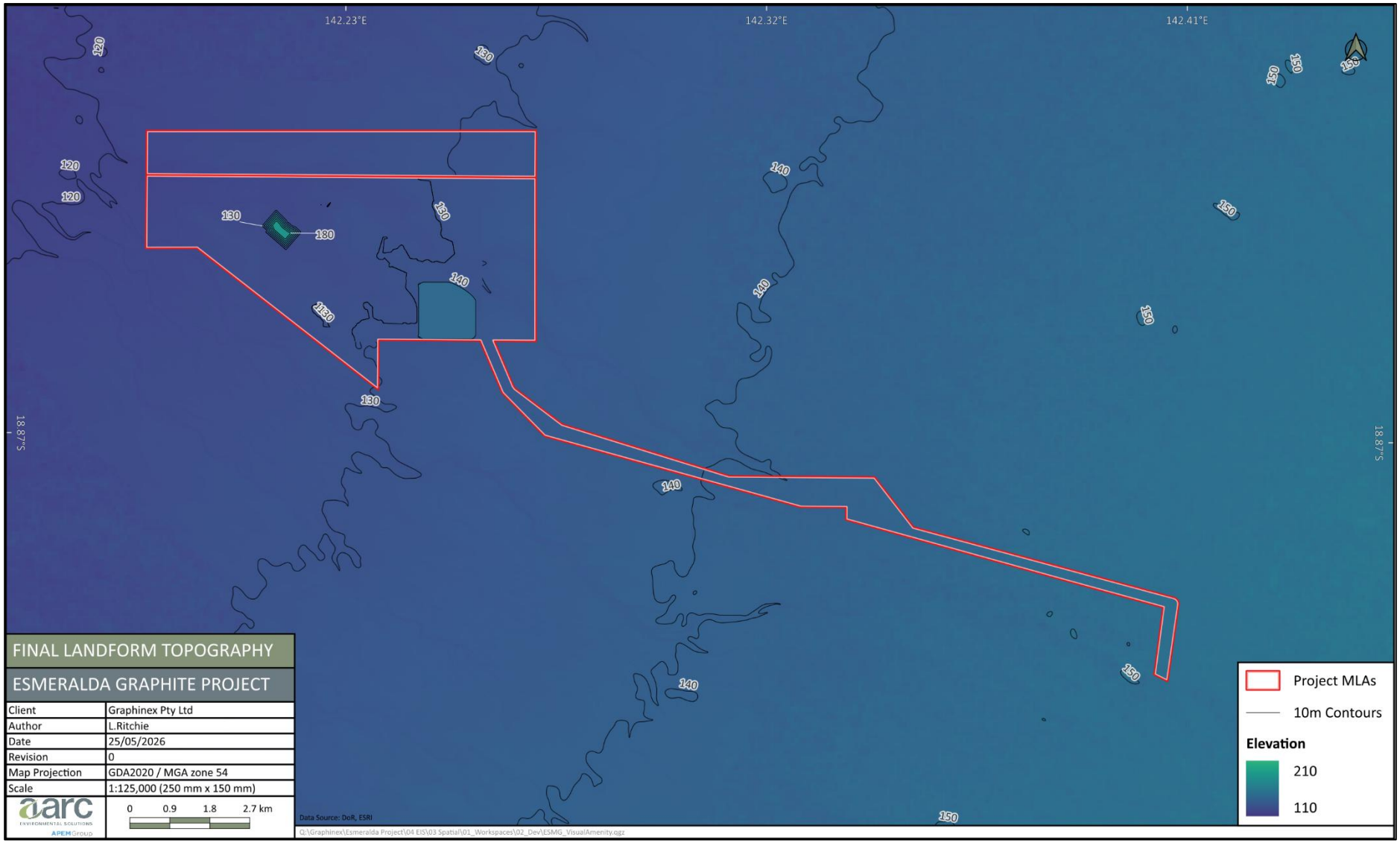


Figure 13-5: Final landform design

13.3.9 Surface preparation and revegetation

The key objective of the Project's revegetation plan is to ensure that a self-sustaining vegetation community is established. The plant species used need to conform to the agreed PMLU — for this Project the PMLUs largely conform to the composition of the pre-existing communities. Given the low intensity grazing land use, there also need to species present which conform to the 3P category (palatable, productive, and perennial).

13.3.9.1 Topsoil management

Topsoil is an important factor in achieving successful rehabilitation outcomes and is, therefore, a valuable resource. Topsoil will be utilised, as required, as a growth medium to facilitate vegetation establishment and growth with the objective of minimising erosion risk. Where topsoil is required for rehabilitation works, topsoil health and suitability will be assessed and documented by an appropriately qualified person, and a recommendation made for ameliorants to ensure sodicity, salinity, pH and fertility levels are suitable to achieve the relevant PMLU.

The soils of the Project area are described in Chapter 10, Land – geology, geomorphology, topography and soils. Overall, the soils of all SPCs are considered suitable materials for rehabilitation. Given that the majority of rehabilitation areas will not be available prior to the completion of mining, soils will need to be specifically managed to maintain their viability for rehabilitation purposes.

Soil management measures will be contained within a soil stripping and management plan (SSMP) which will be configured to address the following outcomes and requirements:

- preserve as much of available soils resources as possible;
- ensure topsoil is not degraded during stripping, stockpiling and reinstatement;
- minimising the handling of topsoil;
- supervision of stripping to control recovery depth based on the existing soils mapping;
- Records of areas stripped and date of stripping/stockpiling;
- delineation of suitable stockpile areas;
- ensuring stockpiles are generally less than 2 m high and shaped to encourage water drainage and minimise erosion and loss of resource;
- suitably segregating soils when stripping, stockpile and reinstating to minimise mixing of materials (both spatially between SPCs and vertically within soil profiles) with sufficiently different characteristics throughout soil handling;
- as topsoil resources are to be stockpiled for a period in excess of six months, agronomic testing should be undertaken and appropriate amelioration and seeding carried out to stabilise the stockpiles until reuse; and
- Prior to reuse in rehabilitation works, testing of soil properties to determine the requirement for and application of ameliorants such that this can be planned to occur during the rehandling of soils for rehabilitation. Key parameters that should be considered include pH, ESP, CEC (major cations), organic matter content and other essential nutrients such as nitrate, phosphorous and sulphate.

13.3.9.2 Soil amelioration, fertilisers and amendments

Soil amelioration is usually used to correct a chemical constraint and is often used as a mitigation measure and/or to improve rehabilitation outcomes. The most common ameliorants are the use of gypsum to address sodicity and agricultural lime to neutralise acidic soils. Fertiliser application can improve growing conditions and support plant growth and is particularly important during the establishment phase of new rehabilitation.

The SLSA (GT Environmental, 2026) for the Project provides general recommendations for amelioration suggesting that the following:

- overall, pH amelioration is not recommended for the SPCs in the study area;
- in relation to salinity, while no amelioration is recommended, it is noted that elements such as EC, chlorine and sodium (Na) are transient and will change following disturbance, stockpiling and mixing and may need to be addressed at the point of reinstatement of soils;
- only SPC 6Cl(El) indicated a specific issue with sodicity and it is recommended that where this material is utilised, it should be segregated from other soils and assessed and ameliorated separately;
- SPCs were observed very low fertility indicators of macronutrients, phosphorus and varying levels of micronutrients. Native vegetation and some introduced pasture species are adapted to very low nutrient levels and in general, it may not be required to apply fertiliser where the PMLU relies on native vegetation establishment. Appropriate fertiliser rates where required, will be determined prior to each revegetation event based on the soil health and suitability assessment undertaken by an AQP in accordance with RM criterion 5.1. The assessment will inform the requirements for fertiliser and other ameliorants to ensure soil fertility and other soil properties are suitable to achieve the relevant PMLU. It is recommended that fertiliser application should occur during final soil placement and seed bed preparation; and
- Incorporating organic matter into the topsoil will increase organic levels, improve soil structure, increase CEC, reduce erosion as well as increase water holding capacity. SPCs which may benefit from amelioration with organic matter are generally the sandier, firm setting soils with low CEC and PAWC; such as SPCs 3Cl(Ck), 5Cl(Nm), 6Cl(El) and 7Cl(Nm). It is recommended, where possible, to utilise an organic matter generated from land clearing or stripped vegetation, where it is near the rehabilitation area and readily available.

13.3.9.3 Surface preparation

Soil sampling and analysis on stockpiled soils is recommended prior to use to understand if there are amelioration requirements to support the intended rehabilitation outcomes. The characterisation and assessment of amelioration requirements will confirm soil properties and guide amelioration activities.

At time of reinstatement, any subsoil resources being utilised as a subsoil will be placed first and reprofiled to be consistent with the landform. Ripping or cultivation of the reinstated subsoil may be required to overcome any compaction that occurs during stockpiling and the reinstatement process.

Subsoil should be covered with at least 0.1 m of growth media. Where stripping and stockpiling of soils will potentially increase the sodicity and potential surface condition issues, gypsum should be applied prior to stripping. Erosion and sediment control structures will be implemented and maintained as required.

Soil from long term stockpiles will likely benefit from the addition of organic material to boost fertility, improve structure and biological activity, particularly where stockpiles have been higher than about 0.5 m. The preparation of disturbed areas prior to the establishment of vegetation will involve ripping or tyning along the contour to create sufficient surface roughness to minimise erosion and maximise water retention. RAs will be reprofiled to in a manner compatible with the surrounding topography and with consideration of establishing or maintaining an appropriate drainage system.

13.3.9.4 Revegetation

To maximise revegetation success, revegetation activities will be scheduled during spring before the heavy wet season rainfall begins. Seeding may also occur during the summer months, depending on rainfall. Seeds will be sown using direct seeding or tube stock depending on the species and areas to be revegetated.

Seed stocks will be checked for viability upon purchase and seeded as soon as possible. Seeds may be spread by hand, tractor or by air. Hand seeding is suitable for small areas up to 5 ha; while a tractor with a rear spreader attached is more suitable for larger areas. Seeds should not be buried over 5–10 mm in depth in the soil.

A provisional seed selection has been developed from a complete list of identified flora species within the Project area identified during the Terrestrial Ecology Assessment (AARC 2026c) including the dominant species found within the field verified vegetation communities. This seed mix is presented in As noted, the seed species listed are indicative and are subject to change with season, availability, and following assessment of rehabilitation performance. The minimum total seeding rate is to be no less than 15 kg/ha. In addition, should challenges arise in establishing early vegetation cover on slopes, Japanese Millet (*Echinochloa utilis*) and Saia Oats (*Avena strigose*) may be sown as cover crops during summer and winter seasons respectively at rates of up to 30 kg/ha. To improve soil condition and reduce erosion during vegetation establishment, gypsum maybe be applied to enhance infiltration and reduce dispersion. It may also assist in minimising runoff and rill erosion in the absence of adequate vegetation cover (GT Environmental 2026).

Table 13-3 and is further categorised for the relevant applicable PMLU.

As noted, the seed species listed are indicative and are subject to change with season, availability, and following assessment of rehabilitation performance. The minimum total seeding rate is to be no less than 15 kg/ha. In addition, should challenges arise in establishing early vegetation cover on slopes, Japanese Millet (*Echinochloa utilis*) and Saia Oats (*Avena strigose*) may be sown as cover crops during summer and winter seasons respectively at rates of up to 30 kg/ha. To improve soil condition and reduce erosion during vegetation establishment, gypsum maybe be applied to enhance infiltration and reduce dispersion. It may also assist in minimising runoff and rill erosion in the absence of adequate vegetation cover (GT Environmental 2026).

Table 13-3: Provisional species seed mix

PMLU	Species name	Common name
Creek diversion	**Tree layer**	
	Eucalyptus camaldulensis	River Red Gum
	Melaleuca fluviatilis	Weeping Tea-tree
	Eucalyptus microtheca (surrounding vegetation)	
	Corymbia polycarpa (surrounding vegetation)	Long-fruited Bloodwood
	Lower tree and shrub	
	Asteromyrtus symphyocarpa	Liniment Tree
	Acacia torulosa	Torulosa Wattle
	Melaleuca viridiflora	Broad-leaved Paperbark
	Ground layer	
	Eragrostis speciosa	Handsome lovegrass
	Schizachyrium crinizonatum	
	Aristida ingrata	
	Setaria surgens	Annual Pigeon Grass
	Eriachne mucronata	Mountain Wanderrie Grass
	Schizachyrium fragile	Firegrass
Grassland	*Eragrostis speciosa*	Handsome lovegrass
	Schizachyrium crinizonatum	
	Aristida ingrata	
	Setaria surgens	Annual Pigeon Grass
	Eriachne mucronata	Mountain Wanderrie Grass
	Schizachyrium fragile	Firegrass

PMLU	Species name	Common name
	Chrysopogon fallax	Golden Beard Grass
	Aristida spp.	
Low intensity grazing woodland	**Tree and shrub layer**	
	Corymbia polycarpa	Long-fruited Bloodwood
	Melaleuca viridiflora	Broad-leaved Paperbark
	Melaleuca citrolens	Gulbarn
	Grevillea pteridifolia	Golden Parrot Tree
	Acacia holosericea	
	Acacia galioides	Whorled-leaved Wattle
	Carissa lanceolata	Currantbush
	Ground layer	
	*Eragrostis speciosa**	Handsome lovegrass
	*Schizachyrium crinizonatum**	
	*Aristida ingrata**	
	Setaria surgens	Annual Pigeon Grass
	Eriachne mucronata	Mountain Wanderrie Grass
	Schizachyrium fragile	Firegrass
	Chrysopogon fallax	Golden Beard Grass
	Aristida spp.	

13.4 Monitoring and maintenance

13.4.1 Monitoring

With respect to determining the achievement of the Project RMs, and as outlined in Section 13.2.5, criteria have been defined for each RM. Assessment of rehabilitation against milestone criteria is the key objective of ongoing environmental monitoring to be undertaken for the Project.

Rehabilitation will be monitored initially on an annual basis, and then at a lesser frequency depending on rehabilitation performance. Survey timing will preferentially occur post-wet season, as monitoring at this time allows for more accurate identification of the species present and a clearer understanding of species richness on-site. Where sufficient data is acquired that demonstrates that rehabilitation is clearly on a trajectory to achieve milestone criteria, the frequency of monitoring may be reviewed.

The rehabilitation monitoring program aims to achieve data collection at sufficient spatial and temporal resolution to ensure statistically valid results. The following methods will be employed at each monitoring site and described in detail in the following sections:

- permanent vegetation monitoring transects (ground cover monitoring and species richness);
- photographic monitoring;
- erosion monitoring; and
- growth media characterisation (as required and particularly where revegetation performance is inadequate).

Rehabilitation areas will be visually assessed to identify signs of fauna utilisation, noticeable issues such as erosion, vegetation cover deficiencies, or weed and / or pest infestations. Satellite imagery technology may also be employed. These observations will be incorporated with the results of each rehabilitation progress report.

A detailed monitoring and maintenance program is provided within the PRCP (Section 3.7, Appendix T, Progressive Rehabilitation and Closure Plan).

13.4.2 Maintenance

Rehabilitation indicators and visual observations will be used to identify any aspects of the rehabilitated area that are of concern or suggest rehabilitated land is not on a trajectory of meeting the required completion criteria. These may include:

- evidence of active erosion;
- inadequate vegetation cover or growth;
- invasive weed or pest species;
- soil dispersion / instability; and
- soil infertility.

Following rehabilitation monitoring events, areas of rehabilitation will be assessed for maintenance. An annual visual inspection of all rehabilitated areas will be undertaken to provide an overview of the status of the rehabilitation and identify any noticeable issues such as erosion or inadequate vegetation cover or growth. This information, along with monitoring results, will be used to inform the maintenance schedule.

Maintenance may include repairing areas of excessive soil erosion or undertaking supplementary plantings or seeding to increase floristic diversity and cover to assist in achieving completion criteria.

If issues re-occur, an investigation will be carried out to determine the reason and allow for remediation. Modification of rehabilitation methods and specifications may be required, and rehabilitation and maintenance planning updated accordingly.

13.5 Closure and relinquishment

The PRCP for the Project nominates the measurable completion criteria against which the Project rehabilitation activities will be assessed to determine the extent to which the RMs for each rehabilitation area have been achieved.

When rehabilitation monitoring indicates that completion criteria and milestones have been achieved for all or part of the rehabilitation undertaken for the Project, and that all milestones have been achieved, the Proponent may either:

- apply for progressive certification of the area of land that has been successfully rehabilitated; or
- apply to surrender the EA over the relevant area that has been successfully rehabilitated and submit to DETSI a post-mining management report that states any requirements for the ongoing management of the land.

13.6 TOR Reconciliation table

Terms of reference - Content requirements of the EIS		EIS Section
Section 13 - Rehabilitation and closure		
13.1	The following guidance is relevant to rehabilitation: (a) Queensland Government, Rehabilitation – EIS information guidelines, ESR/2020/5308 (b) Queensland Government, Progressive rehabilitation and closure plan (PRCP plans) – Statutory guideline, ESR/2019/4964 (c) Queensland Government, Common issues with Progressive Rehabilitation and closure plan applications – Information Sheet, ESR/2021/5775 (d) Queensland Government, Voids in Floodplains – Information sheet, ESR/2019/4966 (e) Queensland Government, Non-use management areas – Information sheet, ESR/2019/4954 (f) Queensland Government, Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans – Information sheet, ESR/2024/6766.	Section 13.1
13.2	Describe the rehabilitation strategy which demonstrates how the project infrastructure will be decommissioned and removed, and area rehabilitated, including timing and agreed final landforms and use. Where infrastructure is proposed to remain, identify the owner of this infrastructure.	Section 13.3
13.3	Demonstrate that the rehabilitation of the environment disturbed by construction, operation and decommissioning of the project can meet the environmental objectives and performance outcomes in Schedule 8A of the EP Regulation.	Section 13.2
13.4	Where relevant, describe restoration works proposed for areas of regional interest under the Regional Planning Interests Act 2014.	Section 13.2.2
Rehabilitation and closure - Progressive rehabilitation and closure plan		
13.5	Provide a proposed PRCP for the project in accordance with Submission of a progressive rehabilitation and closure plan and best practice approaches about the strategies and methods for progressive and final rehabilitation. The PRCP must show how and where activities will be carried out on land in a way that maximises the progressive rehabilitation of the land and waterways to a stable condition and provides for the condition to which the holder must rehabilitate the land before the EA may be surrendered. The PRCP must consist of two components: (a) rehabilitation planning part (b) PRCP schedule.	Appendix T, PRCP

Terms of reference - Content requirements of the EIS		EIS Section
Rehabilitation and closure - Rehabilitation planning part		
13.6	Provide rehabilitation planning part of the proposed PRCP, by addressing the following:	
	a) describe each resource tenure, including the area of each tenure	Section 3.1.1. Appendix T, PRCP
	b) describe the relevant activities and the likely duration of the relevant activities	Section 3.1.1., Appendix T, PRCP
	c) describe all water needs and the proposed authority under which the water would be taken to do this work by defining the location, source of water take, and volumes required	Section 3.1.1, Appendix T, PRCP Section 3.1.1.3 Appendix T, PRCP
	d) include a detailed description, including maps, of how and where the relevant activities are to be carried out	Section 3.2, Section 3.3.3., Appendix T, PRCP
	e) include details of the consultation undertaken in developing the proposed PRCP, including infrastructure proposed to be retained onsite	Section 3.3.3.3, Appendix T, PRCP
	f) if infrastructure is proposed to be retained, state the required actions to ensure it is safe, stable and does not cause environmental harm	
	g) include details of how ongoing consultation will be undertaken to discuss rehabilitation to be carried out under the plan	Section 3.2, Appendix T, PRCP
	h) include details of how waterway barriers will be removed, or if not removed, how fish passage will be reinstated	Section 3.1.5.5, Appendix T, PRCP
	i) state the extent to which each proposed post-mining land use or non-use management area is consistent with the outcome of consultation with the community in developing the plan and any strategies or plans for the land of a local government, the state government or the Australian government	Section 13.3
	j) for each proposed post-mining land use, state the proposed methods or techniques for rehabilitating the land to a stable condition in a way that supports the rehabilitation milestones under the proposed PRCP schedule	Section 13.2.3, and Section 3.5 of Appendix T
	k) identify the risks of a stable condition for land identified as a proposed post-mining land use not being achieved, and detail measures to manage or minimise the risks	Not applicable
	l) demonstrate how the post-mining land use aligns with the surrounding regional ecosystems and promotes connectivity of habitats, where relevant	Section 3.3.3, Appendix T
	m) demonstrate how the post-mining land use aligns with surrounding land uses (e.g. grazing, cropping) and how the values and productivity of these land uses will be achieved and maintained on rehabilitated areas, where relevant	Section 3.5.6, Appendix T Not applicable
	n) for each proposed non-use management area, state the reasons why the area cannot be rehabilitated to a stable condition because of either of the below:	Not applicable
	i. carrying out rehabilitation of the land would cause a greater risk of environmental harm than not carrying out the rehabilitation or	Not applicable

Terms of reference - Content requirements of the EIS		EIS Section
	ii. the risk of environmental harm as a result of not carrying out rehabilitation of the land is confined to the area of the relevant resource tenure and the proponent considers, having regard to each public interest consideration, that it is in the public interest for the land not to be rehabilitated to a stable condition o) include copies of reports or other evidence relied on for each proposed non-use management area p) for each proposed non-use management area, state the proposed methodology for achieving best practice management of the area to support the management milestones under the proposed PRCP schedule for the area q) include other information requirements outlined in Guideline – Progressive rehabilitation and closure plans.	
13.7	Show a comparison of pre-activity site topography and the expected final topography of the site. Illustrate the location of proposed infrastructure (including tailing storage facilities, dams, voids and waste rock dumps, disturbed and rehabilitated areas) in relation to the flood plain as defined by Section 41C(3) of the Environmental Protection Regulation and determined in accordance with the Guideline – Progressive rehabilitation and closure plans and the Voids in Flood Plains information sheet.	Section 3.5.2 and Section 3.5.6of Appendix T, PRCP
13.8	Describe how the costs of rehabilitation have been considered in the proposed rehabilitation outcomes for the project. Provide an estimation of rehabilitation costs for the project in its year of maximum rehabilitation liability, demonstrated to be in accordance with the approved calculation methodology in Estimated rehabilitation cost under the Environmental Protection Act 1994, Estimated rehabilitation cost calculator – mining, and User guide for estimated rehabilitation cost calculator user guide – mining.	13.1.2
Rehabilitation and closure - PRCP schedule		
13.9	Provide a proposed PRCP schedule which describes time-based milestones for achieving each post-mining land use or non-use management areas for the project. Present the proposed PRCP schedule in the table template included in Submission of a progressive rehabilitation and closure plan.	Section 3.5.3, Section 3.5.4 and Appendix A of Appendix T, PRCP
13.10	The proposed PRCP schedule, must identify: a) all land within the resource tenure as either a post-mining land use or non-use management area b) when land becomes available for rehabilitation or improvement c) rehabilitation milestones to achieve a post-mining land use d) management milestone to achieve a non-use management area e) milestone criteria that demonstrate when each milestone has been completed f) completion dates for each milestone to be achieved	Section 3.5.2, Section 3.5.3 and and Appendix A of Appendix T, PRCP

Terms of reference - Content requirements of the EIS		EIS Section
	g) a final site design h) all milestone criteria must be consistent with the SMART principles.	
13.11	Demonstrate that effective, long-term planning for rehabilitation over the life of the mine has been included in the mine planning in line with matters raised in Guideline – Progressive rehabilitation and closure plans.	Appendix T, PRCP