PRCP schedule P-PRCP-100888359 Broadmeadow East Mine

This is the approved form for a PRCP schedule issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994*.*

PRCP schedule: P-PRCP-100888359_V1

PRCP schedule holder(s)

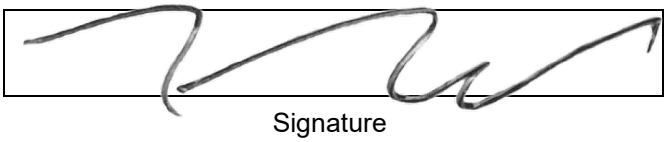
Name(s)	Registered address
Coking Coal One Pty Ltd ACN: 615 317 907	Level 4, 167 Eagle Street, Brisbane City QLD 4000

Location details

Location(s)
ML70257

Take effect

In accordance with section 202B of the *Environmental Protection Act 1994* (EP Act)*,* the PRCP schedule has effect on the day the environmental authority for carrying out relevant activities on land to which the schedule relates takes effect. Pursuant to section 202C of the EP Act*,* a PRCP schedule continues in force until the environmental authority for the relevant activities to which the PRCP schedule relates is cancelled or surrendered, even if the resource tenure expires or is cancelled and even if the relevant environmental authority is suspended under Chapter 5, part 11 or 11A of the EP Act.



Signature

18 June 2025

Date

Department of the Environment, Tourism, Science and Innovation
Delegate of the administering authority
Environmental Protection Act 1994

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Queensland Government

Obligations under the *Environmental Protection Act 1994*

Pursuant to section 202E of the EP Act, if there is an inconsistency between an environmental authority and a PRCP schedule, the environmental authority prevails to the extent of the inconsistency.

Pursuant to section 285 of the EP Act:

- the holder of a PRCP schedule must commission an audit of the schedule by a rehabilitation auditor for the following periods (each an audit period) —

  (a) the 3-year period starting on the day the schedule takes effect

  (b) each 3-year period starting on the day after the previous audit period ended.

- the holder must, within 4 months after the end of each audit period, give the administering authority -

  (a) the rehabilitation auditor's report (an audit report) about the audit that complies with section 286 of the EP Act, and

  (b) a declaration for the audit report that complies with section 285 of the EP Act.

In addition to the requirements found in the conditions of this PRCP schedule, the holder must also meet their obligations under the environmental authority, the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the EP Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443).

PRCP schedule

The PRCP schedule incorporates the following sections:

- Section A - Conditions of PRCP schedule
- Section B - Definitions
- Section C - Final site design and reference maps
- Section D - Post mining land uses
- Section E - Non-use management areas.
- Section F – Tables and Figures

Section A - Conditions of PRCP schedule

Pursuant to section 206A of the EP Act:

- it is a condition of this PRCP schedule that, in carrying out a relevant activity under the schedule, the holder must comply with a requirement stated in the environmental authority relevant to carrying out the activity.
- it is a condition of this PRCP schedule that the holder must comply with the following matters stated in the schedule -

  (a) each rehabilitation milestone and management milestone

  (b) when each rehabilitation milestone and management milestone is to be achieved

General conditions

PRCP1 All mining disturbance authorised under EA EA0002465 must have an associated rehabilitation outcome provided in this PRCP Schedule.

PRCP2 The holder must for each rehabilitation area, achieve the rehabilitation milestone criteria (milestone reference):

(a) for the cumulative area available specified in this schedule; and

(b) by the milestone completion date specified in this schedule.

PRCP3 Where land becomes ‘available for rehabilitation’ earlier than the date nominated in this schedule, the holder must:

(a) notify the administering authority in writing within 30 days of the land becoming ‘available for rehabilitation’. The written notification must include precise details of the relevant land area and the date when that land became ‘available for rehabilitation’; and

(b) Unless otherwise agreed to by the administering authority in writing, within 90 days of the land becoming ‘available for rehabilitation’, apply to the administering authority to amend this schedule in a way that maximises the progressive rehabilitation of the land to a stable condition, including bring forward achievement of relevant milestones and criteria.

Note: reference to "earlier than the nominated date in the schedule" means a date that is greater than 1 year prior to the date nominated in the schedule.

PRCP4 Where an area achieves a rehabilitation or management milestone, the holder must continue to achieve the milestone criteria until a surrender is approved.

PRCP5 The holder must maintain a risk register that identifies the risks to not achieving a stable condition for post-mining land uses, and how the risks are being managed or minimised. The risk register must be reviewed annually and include consideration of the outcomes of PRCP monitoring data.

PRCP6 The holder must carry out monitoring of the rehabilitation activities in the rehabilitation areas in accordance with:

(a) the monitoring and maintenance program described in the rehabilitation planning part for the activity version 2 (dated 10 January 2025); and

(b) any requirement under this schedule; and

(c) as necessary to demonstrate achievement of each rehabilitation milestone or management milestone criteria.

Where there is any inconsistency between this schedule and the rehabilitation planning part the schedule criteria prevail to the extent of the inconsistency.

PRCP7 The holder must make and keep up to date records on:

(a) Achievement and maintenance of achievement of each rehabilitation milestone criteria of this schedule.

(b) Rehabilitation activities and the results of those activities (including but not limited to, actions taken, date, location, methods, data collected, Quality assurance/Quality Control, photos, waste tracking and disposal records, appropriately qualified person (AQP) details and assumptions);

(c) Maintenance of rehabilitation and the results of maintenance activities;

(d) Monitoring of rehabilitation and the results of monitoring;

(e) Details and results of rehabilitation trials;

(f) Designs, drawings, specifications and any similar documents developed in accordance with good professional practice in relation to rehabilitation milestones or milestone criteria;

(g) All documents in relation to the requirements of this schedule, including reports (e.g. site investigation report), statements (e.g. site suitability statement), certifications, assessments, investigations, inspections, audits or any similar documents developed in relation to rehabilitation milestones or milestone criteria;

(h) Landholder agreements;

(i) Details of community consultation in the community consultation register relating to rehabilitation and closure activities.

PRCP8 Records made under **PRCP7** must be kept until the relevant environmental authority has been surrendered or cancelled.

PRCP9 Records made under **PRCP7** must be provided to the administering authority in the specified format within 10 business days of a written request.

PRCP10 All AQP designs, specifications, certifications, assessments and any similar documents developed in accordance with good professional practice must include documented consideration of any relevant guideline or publication material.

PRCP11 By **10 June 2027**, updated analysis of the final landform stability must be undertaken to confirm that the final landform will be able to achieve a stable condition for the following areas (as depicted in *Figure 3 - Final Landform Design*):

(a) Central in-pit spoil dump
(b) Northern Pit; and
(c) Southern Void (PMLU low intensity grazing).

PRCP12 The analysis required by **PRCP11** must meet the following criteria:

(a) Use a methodology appropriate to the risk level to achieve a stable condition of the final landform as determined by an AQP;
(b) Confirm if the final landform achieves a stable condition and if there are any risks to achieving a stable condition;
(c) If erosion modelling is used for the analysis, the modelling must:

(i) be undertaken in accordance with the latest version of the Queensland Government's "Applying Erosion and Landscape Evolution Models to assess post-mining landform stability: Technical Paper".
(ii) use parameters that are suitable for the site-specific conditions and commensurate with the risks associated with the final landform as determined by an AQP.
(iii) Validate model outputs against field data where appropriate and possible.

PRCP13 Where the analysis conducted under **PRCP11** indicates a risk to achieving a stable condition of the final landform, an amendment application to this PRCP Schedule must be submitted to the administering authority to address the risk within 3 months of the risk being identified.

PRCP14 The updated analysis required by condition **PRCP11** must be provided to the administering authority on request.

END OF CONDITIONS

Section B – Definitions

Appropriately qualified person (AQP)	means a person who has professional qualifications, training, skills and experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods or literature.
Activity (EP Regulation)	includes that part, if any, of an activity relating to the following— (a) preparing a place for the activity before carrying out the activity; (b) rehabilitating a place after it has been used for carrying out the activity.
BioCondition	refers to the *BioCondition Assessment Manual* (Eyre, T.J., Kelly, A.L, Neldner, V.J., Wilson, B.A., Ferguson, D.J., Laidlaw, M.J. and Franks, A.J. (2015)) and *BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. Version 2.2* (Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts, Brisbane) or later versions thereof.
Contaminants	can be a gas, liquid or solid; or an odour; or an organism (whether alive or dead), including a virus; or energy, including noise, heat, radioactivity and electromagnetic radiation; or a combination of contaminants.
Flood stress	is the pressure on structures from rapid water rise, erosion, and saturation during extreme floods, risking instability.
Growth media	is defined as all soil and soil-like material that will support the final vegetation cover. This includes the topsoil and subsoil where these materials are applied independently. Where the topsoil is incorporated into the underlying subsoil/spoil, topsoil refers to the depth of incorporation and the remaining depth is regarded as subsoil. The total depth of growth media is nominally considered to be the effective plant root zone
Gully	A gully is a channel excavated by water, more than 0.3 m deep.
Independent AQP	is an AQP who is a third party, being independent of the PRCP schedule holder, and has not previously provided advice on the matter the subject of the review.
Independently peer reviewed	means a peer reviewer who is a third-party to the PRCP schedule holder and the AQP whose report is being reviewed and substantiated. The peer reviewer shall also be an AQP and documentation provided must contain sufficient detail to allow for independent technical review and substantiation and provide and justify site-specific landform performance (SMART) criteria.
Potentially acid forming (PAF)	means material with either a Net Acid Producing Potential of greater than 5 kg of H_2SO_4/tonne or a Net Acid Generation oxidation pH of less than 4.5 (pH unit).
Problematic waste materials	waste materials that may release a contaminant and, as a result, negatively impact water quality and/or vegetation growth. These materials include, but are not limited to, potentially acid forming material and coal rejects.
Rehabilitation activity	means any activity that the holder is required to carry out in relation to this

	PRCP schedule.
Relevant material	includes: (a) Final landform design report, (b) Durability assessment/ report, (c) “As Constructed” report; (d) All monitoring data (e) Assessment of monitoring data, (f) All maintenance records; and (g) Modelling and technical assessments.
Relevant structure	To be defined during the assessment and listed here. Typically includes TSF and higher risk structures, including WRDs.
Stable	in relation to land, means landform dimensions are or will be stable within tolerable limits now and in the foreseeable future. Stability includes consideration of environmental context, geotechnical stability, settlement and consolidation allowances, bearing capacity (trafficability), erosion resistance and geochemical stability with respect to seepage, leachate and related contaminant generation.
Stabilised	means one or both of the following conditions apply: no evidence of sediment movement; sides and/or floors of erosion form are revegetated (Australian Soil and Land Survey Field Handbook Third Edition).
Stable condition	see section 111A of the *Environmental Protection Act 1994*.
Suitably qualified person (SQP)	for performing a regulatory function under chapter 7, part 8 (Contaminated Land) of the EP Act or another function prescribed under a regulation, means a person who— (a) has qualifications and experience relevant to performing the function; and (b) if a regulation prescribes an organisation for this paragraph—is a member of the organisation.
Vegetative groundcover	Means plants, plant litter, tree leaf litter, twigs and woody debris capable of protecting the soil surface from erosion

Section C - Final site design and reference maps

Figure 1 – Rehabilitation and Improvement Areas

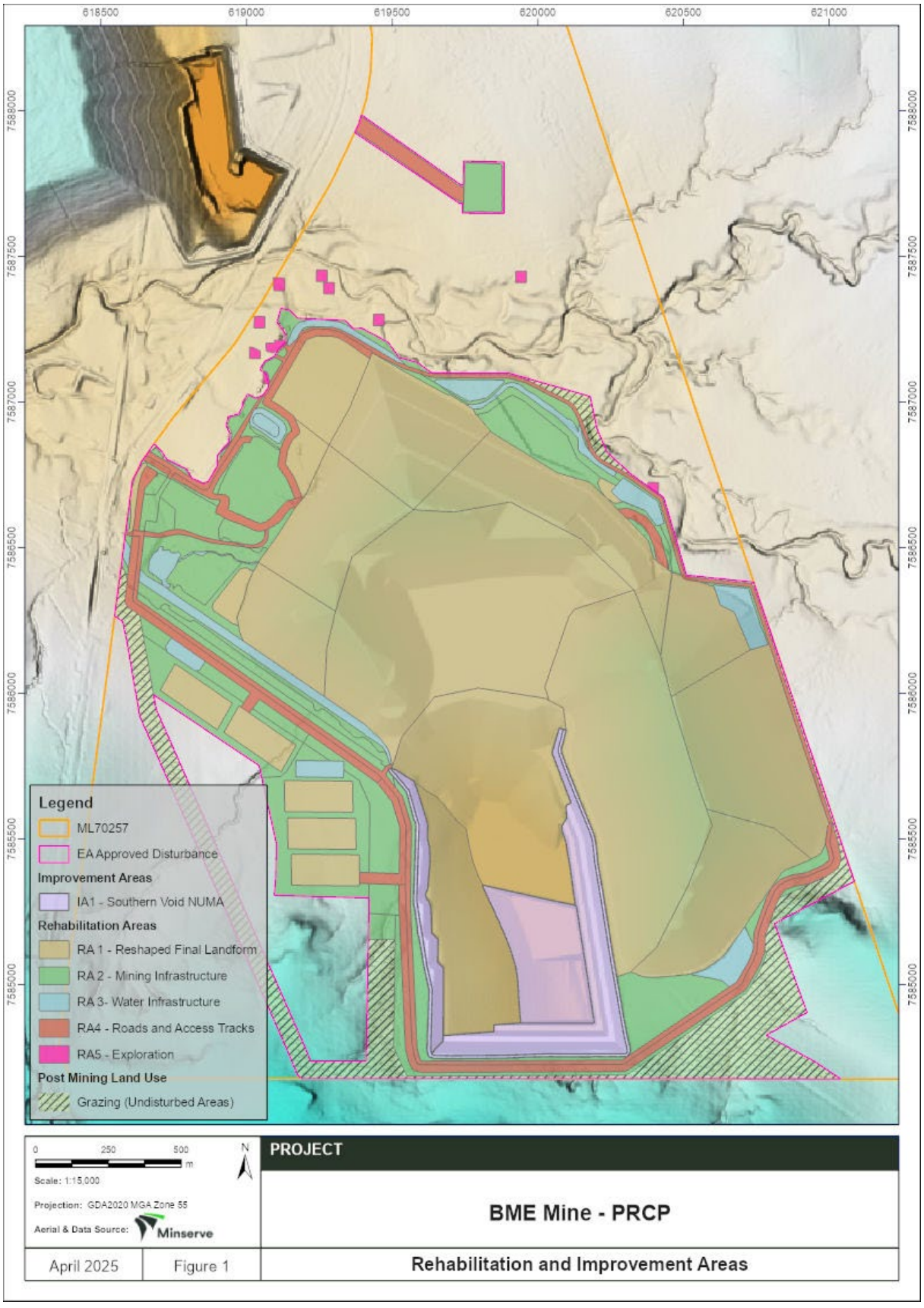
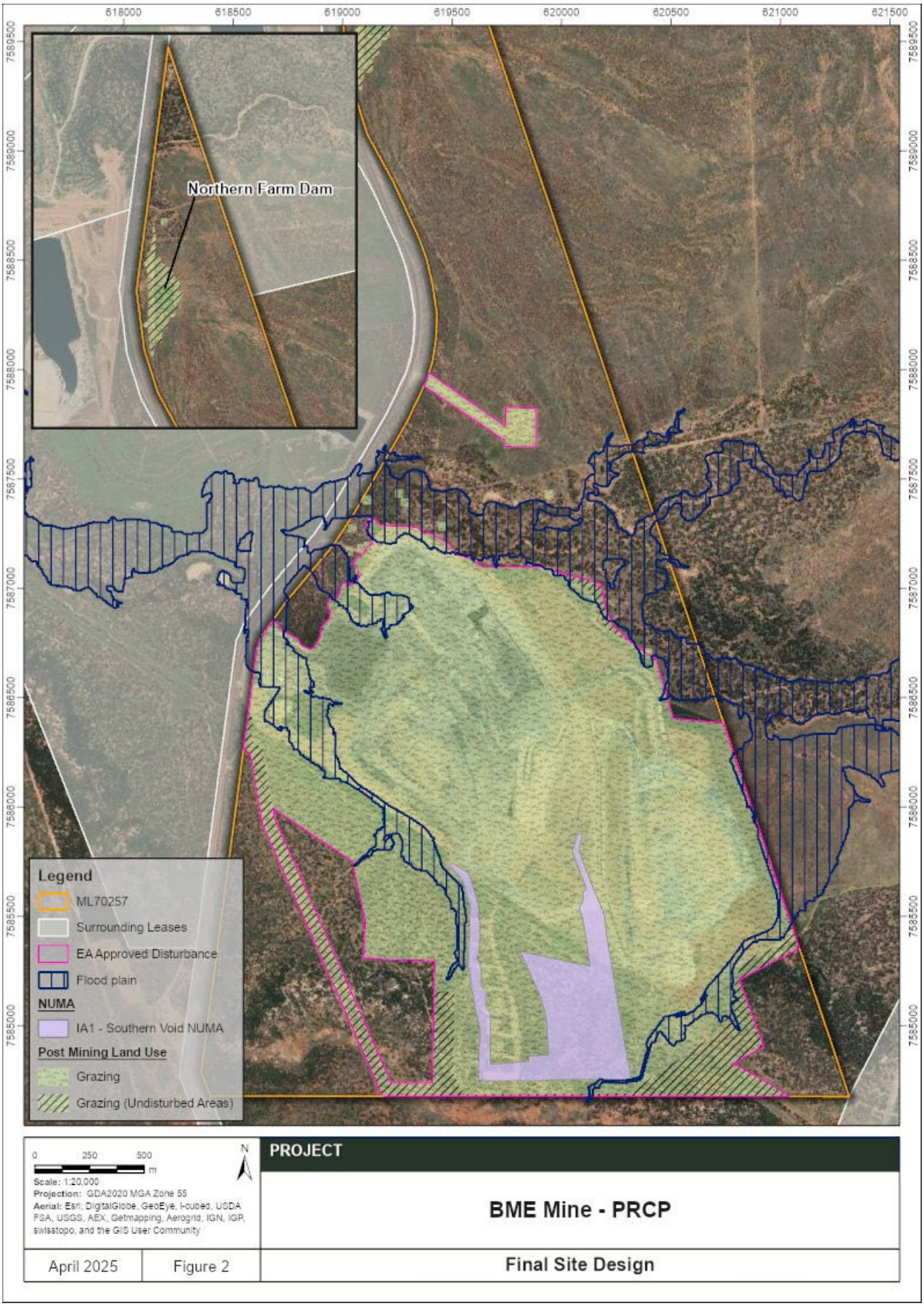


Figure 2 – Final Site Design



Section D – Post mining land uses

(RA1) Rehabilitation area 1

Post-mining land uses (PMLU)							
Rehabilitation area	RA1						
Relevant activities	Reshaped Final Landform (Out of Pit and Inpit Dumps (East and West)), Topsoil Stockpiles, North Pit, Pit Floor (Southern Void PMLU), Central in-pit spoil dump)						
Total rehabilitation area size (ha)	266.4						
Commencement of first milestone: RM1	10/12/2025						
PMLU	Grazing						
Date area is available	10/12/2025	10/12/2028	10/12/2031	10/12/2034	10/12/2037	10/12/2040	10/12/2043
Cumulative area available (ha)	78.2	153.5	214.6	266.4	266.4	266.4	266.4
Milestone completed by	10/12/2028	10/12/2031	10/12/2034	10/12/2037	10/12/2040	10/12/2043	10/12/2044
Milestone Reference	**Cumulative area achieved (ha)**						
RM1	78.2	153.5	214.6	266.4			
RM2	78.2	153.5	214.6	266.4			
RM3		78.2	153.5	214.6	266.4		
RM4		78.2	153.5	214.6	266.4		
RM5		78.2	153.5	214.6	266.4		
RM6			78.2	153.5	214.6	266.4	
RM7				78.2	153.5	214.6	266.4

(RA2) Rehabilitation area 2

Post-mining land uses (PMLU)							
Rehabilitation area	RA2						
Relevant activities	Mine Infrastructure (MIA, explosives storage area, ROM)						
Total rehabilitation area size (ha)	70						
Commencement of first milestone: RM1	10/12/2027						
PMLU	Grazing						
Date area is available	10/12/2027	10/12/2028	10/12/2031	10/12/2034	10/12/2037	10/12/2040	10/12/2043
Cumulative area available (ha)	10.6	32.1	49.4	70.0	70.0	70.0	70.0
Milestone completed by	10/12/2028	10/12/2031	10/12/2034	10/12/2037	10/12/2040	10/12/2043	10/12/2044
Milestone Reference	**Cumulative area achieved (ha)**						
RM1	10.6	32.1	49.4	70.0			
RM2	10.6	32.1	49.4	70.0			
RM3	10.6	32.1	49.4	70.0			
RM4		10.6	32.1	49.4	70.0		
RM5		10.6	32.1	49.4	70.0		
RM6			10.6	32.1	49.4	70.0	
RM7				10.6	32.1	49.4	70.0

(RA3) Rehabilitation area 3

Post-mining land uses (PMLU)							
Rehabilitation area	RA3						
Relevant activities	Water Infrastructure and Sediment Dams						
Total rehabilitation area size (ha)	14.6						
Commencement of first milestone: RM1	10/12/2027						
PMLU	Grazing						
Date area is available	10/12/2027	10/12/2028	10/12/2031	10/12/2034	10/12/2037	10/12/2040	10/12/2043
Cumulative area available (ha)	8.4	9.3	12.8	14.6	14.6	14.6	14.6
Milestone completed by	10/12/2028	10/12/2031	10/12/2034	10/12/2037	10/12/2040	10/12/2043	10/12/2044
Milestone Reference	**Cumulative area achieved (ha)**						
RM1	8.4	9.3	12.8	14.6			
RM2	8.4	9.3	12.8	14.6			
RM3	8.4	9.3	12.8	14.6			
RM4		8.4	9.3	12.8	14.6		
RM5		8.4	9.3	12.8	14.6		
RM6			8.4	9.3	12.8	14.6	
RM7				8.4	9.3	12.8	14.6

(RA4) Rehabilitation area 4

Post-mining land uses (PMLU)							
Rehabilitation area	RA4						
Relevant activities	Roads and Access Tracks						
Total rehabilitation area size (ha)	30.8						
Commencement of first milestone: RM1	10/12/2027						
PMLU	Grazing						
Date area is available	10/12/2027	10/12/2028	10/12/2031	10/12/2034	10/12/2037	10/12/2040	10/12/2043
Cumulative area available (ha)	2.8	16.1	19.5	30.8	30.8	30.8	30.8
Milestone completed by	10/12/2028	10/12/2031	10/12/2034	10/12/2037	10/12/2040	10/12/2043	10/12/2044
Milestone Reference	**Cumulative area achieved (ha)**						
RM1	2.8	16.1	19.5	30.8			
RM2	2.8	16.1	19.5	30.8			
RM3	2.8	16.1	19.5	30.8			
RM4		2.8	16.1	19.5	30.8		
RM5		2.8	16.1	19.5	30.8		
RM6			2.8	16.1	19.5	30.8	
RM7				2.8	16.1	19.5	30.8

(RA5) Rehabilitation area 5

Post-mining land uses (PMLU)		
Rehabilitation area	RA5	
Relevant activities	Exploration	
Total rehabilitation area size (ha)	1.6	
Commencement of first milestone: RM6	10/12/2028	
PMLU	Grazing	
Date area is available	10/12/2028	10/12/2031
Cumulative area available (ha)	1.6	1.6
Milestone completed by	10/12/2031	10/12/2034
Milestone Reference	**Cumulative area achieved (ha)**	
RM6	1.6	
RM7		1.6

Rehabilitation area milestones

Milestone reference	Rehabilitation milestone	Milestone criteria
RM1	Infrastructure Decommissioning and Removal	1.1 With the exception of any infrastructure to remain as part of the PMLU or for the purposes of rehabilitation, the following are complete: (a) All services disconnected, terminated and removed. (b) All buildings demolished and/or removed off-site. (c) All roads and hardstand removed. (d) All fencing, not included in the PMLU removed. (e) All machinery and equipment removed. (f) All operational pipelines drained and removed. (g) All surface water drainage infrastructure removed. (h) All dams dewatered and desilted. (i) All drillholes, drill pads, sediment ponds and sumps decommissioned.
RM2	Remediation of Contaminated Land	2.1 Contaminated Land Investigation Document completed in accordance with the *Environmental Protection Act 1994* including a site investigation report, and, where required, a Validation Report and/or a draft Site Management Plan. 2.2 Contaminated and hazardous material either remediated in-situ or removed/transported to an approved landfill for disposal and waste tracking information recorded and submitted. 2.3 A Suitably Qualified Person certifies that no contamination unsuitable for the post-mining land use remains or is occurring.

Milestone reference	Rehabilitation milestone	Milestone criteria
RM3	Landform Development and Reshaping/Reprofiling	**Applicable to all rehabilitation areas:** 3.1 All major earthworks are completed in accordance with the design specification by an AQP. 3.2 Constructed landform achieves geotechnical stability with a Factor of Safety (FoS) ≥ 1.5. 3.3 Erosion and sediment control systems are installed as per the construction design. 3.4 All landforms are shaped to be water shedding. 3.5 Problematic waste materials, including PAF materials, are appropriately placed and located within the final landform, consistent with relevant designs. **Out of Pit Dumps and In-pit Spoil (RA1)** 3.6 Contours or graded drains have been implemented as per construction design. 3.7 All rejects capped with a minimum of 5m of non-reactive overburden. 3.8 Slopes ≤ 15% for Outer slopes and In-pit Spoil **(Figure 3 - Final Landform Design)**. 3.9 Drainage outward away from void towards original topographic drainage paths. **Central in-pit- spoil dump (RA1)** 3.10 Slopes ≤ 20%. 3.11 Contoured to the surrounding topography. 3.12 Drainage outward away from void towards the original topography drainage paths. **Northern Pit (RA1)** 3.13 Full backfill completed to ≥ 270 mAHD. 3.14 Slopes ≤ 20%. 3.15 Exposed coal seams have been treated, removed, or covered with ≥ 2 m of NAF material in the backfilling process. **Southern Void RA1(PMLU low intensity grazing)** 3.16 Backfilled ≥ 225 mAHD. 3.17 Slopes and batters achieve overall slope ≤ 30%. 3.18 Slopes and batters are internally draining into the void and are geotechnically and erosionally stable. 3.19 Coal seams have been treated, removed or covered with ≥ 2m of NAF material in the backfilling process. 3.20 Independent AQP has surveyed the final landform and certified that **RM3.1** – **RM3.19** (inclusive) have been achieved.

Milestone reference	Rehabilitation milestone	Milestone criteria
RM4	Surface Preparation	4.1 Placement of ≥ 300 mm of topsoil. 4.2 Deep ripping of compacted surfaces to an appropriate depth into soil/subsoil along the contour of slopes as per recommendations of an AQP. 4.3 An assessment of soil and growth media, health and suitability has been completed by an AQP to confirm growth media is suitable for PMLU and target vegetation establishment. 4.4 The development of an amelioration and physical treatment plan is completed by an AQP, if required. 4.5 Ameliorant and physical treatment such as fertiliser, gypsum and organic matter (OM) are applied at the following minimum application rates unless adjusted by an AQP: (a) Fertilizer: 130 kg/ha (b) Lime: 3 t/ha (c) Compost with OM 30% at 400 kg/ha, and compost with OM 40% at 300 kg/ha. 4.6 Following amelioration and/or physical treatment, representative soil testing of growth media confirms, in the rootzone of 0 – 300mm: (a) soil pH 5.6 – 8.4 as measured at any part of the root zone; (b) available-P (mg/kg) ≥ 8 (at 0-10 cm depth); (c) rootzone Electrical Conductivity (EC) saturated extract ≤2 dS/m; and (d) ESP < 6% (at 0-10 cm depth). 4.7 If soil suitability criteria specified in **RM4.6** are not met, the following measures are implemented, where relevant: (a) Fertiliser and ameliorant application rates are revised by an AQP and applied accordingly. (b) If after the revised application of fertiliser and ameliorants further soil testing indicates that soil suitability criteria are still not met, a certification by an AQP is completed to demonstrate that soil properties will not impact the ability to achieve the PMLU due to constraints to plant growth or increased erosion risk. (c) Areas of erosion classified as 'moderate' or 'severe', as defined by **Table 1 – Erosion classification framework**, are repaired. 4.8 The surface and groundwater monitoring points are installed, including those locations identified in **Figure 4** and **Table 4 – Surface water monitoring locations** and **Figure 5** and **Table 5 – Groundwater monitoring locations**, and monitoring is underway (a minimum of one (1) year of water quality and level data collected). 4.9 Independent AQP has certified the achievement of **RM4.1** – **RM4.8** (inclusive).

Milestone reference	Rehabilitation milestone	Milestone criteria
RM5	Revegetation (grazing)	5.1 Complete seeding of all topsoiled surfaces using a rehabilitation mix comprising the species permitted in **Table 2– Species list and seeding rates for grazing PMLU.** 5.2 An AQP determines the application of hay mulch, if required, and its rate of application. 5.3 Stock exclusion fencing has been established to prevent stock from grazing newly seeded areas, where required. 5.4 Independent AQP has certified the achievement of **RM5.1** – **RM5.3** (inclusive).
RM6	Achievement of Surface Requirements	6.1 Groundcover ≥ 70% perennial pasture biomass. 6.2 Species used in revegetation remain present and show evidence of natural recruitment. Evidence of flora recruitment from rehabilitation monitoring data. 6.3 Minimum vegetation composition (per hectare (averaged)) of: (a) three (3) species of 3P pasture species (b) two (2) legume species (c) two (2) shade tree species. 6.4 Weed presence is a maximum of 10% of total vegetative cover confirmed by an AQP in annual monitoring (including Parthenium weed (*Parthenium hysterophorus*)). 6.5 Total groundcover (combination of vegetative cover, other organic material (i.e. sticks, leaf litter) and inorganic material (i.e. rocks)) ≥ 70%. 6.6 No evidence of erosion classified as 'moderate' or 'severe' as defined by **Table 1 – Erosion classification framework**. 6.7 Any erosion present will not compromise the achievement of the PMLU to a stable condition. 6.8 Average erosion rate of ≤ 5 t/ha/year and a maximum erosion rate of < 10t/ha/year. 6.9 All erosion requiring intervention has been remediated and does not impact achieving the PMLU. 6.10 Surface water runoff has been collected across representative areas of rehabilitation when surface flows occur, and it is safe to do so. 6.11 Surface water runoff is non-polluting to receiving waters and complies with **Table 3 – Surface water quality limits.** 6.12 Independent AQP has certified the achievement of **RM6.1** – **RM6.11** (inclusive).

RM7	Achievement of PMLU to a stable condition (grazing)	7.1 Final landform survey confirms no infrastructure remains with the exception of any infrastructure to remain as part of the PMLU. 7.2 A hazard assessment has been completed by an AQP to confirm safety hazards in rehabilitation are not significantly different to surrounding unmined landscapes subject to the same land use. 7.3 The land is structurally and erosionally stable. 7.4 Vegetation groundcover of ≥ 70%. 7.5 Weed presence is a maximum of 10% of total vegetative cover confirmed by an AQP in annual monitoring (including Parthenium weed *Parthenium hysterophorus*). 7.6 Category 3 restricted invasive plants (as defined in the *Biosecurity Act 2014*) comprise ≤ 5% of vegetation cover (excluding Parthenium weed *Parthenium hysterophorus*). 7.7 No evidence of erosion classified as 'moderate' or 'severe' as defined by **Table 1 – Erosion classification framework**. 7.8 Average erosion rate of ≤ 5 t/ha/year and a maximum erosion rate of < 10 t/ha/year. 7.9 Land Suitability Class is 4 or below. 7.10 Surface water quality results monitored monthly during flow at, but not limited to, the locations specified in **Table 4 – Receiving Water Monitoring Locations**, must not exceed the limits in **Table 3 – Surface water quality limits.**, for a minimum of 5 consecutive years. 7.11 If the surface water quality exceeds criteria **RM7.10**, the applicable upstream site must be compared to the downstream site result; and the quality result measured at a downstream site must be equal to or less than the quality result measured at the applicable upstream site[1]. 7.12 Where the surface water quality at the downstream site exceeds the upstream site, an AQP must complete an assessment of the cause and risk of rehabilitation not achieving a stable condition within the schedule timeframe and: (a) Where there is a low risk to achieving a stable condition from the mining tenure ML70257, then no further action is to be taken; or (b) Where there is a risk greater than low to achieving a stable condition, then an assessment of potential environmental harm and any changes or rectification actions to rehabilitation activities must be determined and implemented. (c) The 5-year timeframe under RM7.10 is reset by 4 occurrences of **RM7.12(a)** and by a single occurrence of **RM7.12(b)**. 7.13 The assessments under criteria **7.12(b)** must be completed and provided to the administering authority within three (3) months of receiving the relevant sampling results.

Milestone reference	Rehabilitation milestone	Milestone criteria
		7.14 For a minimum of five consecutive years groundwater quality must be monitored quarterly at, but not limited to, locations specified in **Table 5 – Groundwater Monitoring Locations** for all quality characteristics listed in **Table 6 – Groundwater quality limits.** 7.15 Groundwater quality results required by **RM7.14** must not exceed the limits in **Table 6 – Groundwater quality limits**, for three (3) consecutive results when monitored at compliance bores identified in **Table 5 – Groundwater Monitoring Locations**. 7.16 Independent AQP certifies achievement of **RM7.1** – **RM7.15** (inclusive).

[1] For pH, the quality result measured at the downstream location must be within the prescribed range. However, where pH at the downstream location is greater-than (>) the highest limit in the range, the pH at the applicable upstream location must be greater-than or equal-to (≥) the downstream location. Conversely, where pH at the downstream location is less than (<) the lowest limit in the range, the upstream pH at the applicable upstream location must be less-than or equal-to (≤) the downstream location.

Section E – Non-use management areas

(IA1) Improvement area 1

Non-use management area (NUMA)		
Improvement area	IA1	
Relevant activities	Southern Void	
Total size (ha)	31.0	
Commencement of first milestone: MM1	10/12/2028	
NUMA	Southern Void Non-Use Management Area	
Date area is available	10/12/2028	10/12/2031
Cumulative area available (ha)	31.0	31.0
Milestone completed by	10/12/2031	10/12/2037
Milestone Reference	**Cumulative area achieved (ha)**	
MM1	31.0	
MM2		31.0

Improvement area milestones

Milestone reference	Management milestone	Milestone criteria
MM1	Achievement of landform design and surface requirements	MM1.1 Highwall landforms must: (a) prevent surface flow of water into the void (b) be geotechnically stable, including under a Probable Maximum Flood (PMF) event. (c) not be constructed with dispersive material. MM1.2 Spoil slope and all benches of walls seeded, as per **Table 2 - Species list and seeding rates for grazing PMLU**. MM1.3 Residual void achieves the following angles: (a) Final pit walls (Competent material) overall slopes are ≤ 70 degrees. (b) Final pit walls (Incompetent material) overall slopes are ≤ 45 degrees. (c) Inpit spoil slope (unrehabilitated) have an overall angle of repose ≤ 37 degrees. MM1.4 Residual void has a maximum depth of RL 218 mAHD. MM1.5 Void Lake equilibrium level does not exceed 300 mAHD. MM1.6 Residual void partially backfilled to a minimum level of RL 225 mAHD. MM1.7 Final residual voids are not subject to inundation from floodwaters up to and including 0.1% AEP flood levels plus 0.5m. MM1.8 Final void (including highwalls, end walls and low walls) achieves a FoS of ≥1.5 and is assessed to be geotechnically stable by an AQP. MM1.9 The location of the voids and associated safety bunds does not cause instability or degradation to the land outside the NUMA. MM1.10 Erosion and sediment control measures have been installed and are operating as designed. MM1.11 Drainage measures and structures have been implemented and are directing overland flow away from the highwall edge. MM1.12 Safety infrastructure established around the void, including the following: (a) Security fencing installed around the entire perimeter of the void with gates to allow controlled access of livestock. (b) Safety signage designed in accordance with Australian Standard along the fence line.

		(c) Adequate bunding in place and confirmed to be geotechnically stable by an AQP. MM1.13 Bunding constructed to the following design criteria: (a) constructed from non-weathered and non-dispersive material. (b) minimum height of 2m. (c) minimum base width of 5m. (d) minimum of 20m offset from the pit perimeter. MM1.14 No evidence of erosion classified as 'moderate' or 'severe' as defined by **Table 1 – Erosion classification framework** in the bund areas or setback areas. MM1.15 Residual void acts as groundwater sink within the boundary of ML70257 post-closure as demonstrated by water quality, water level monitoring and modelling data. MM1.16 Independent AQP certifies achievement of **MM1.1** to **MM1.15** (inclusive).
MM2	Achievement of sufficient improvement	MM2.1 The highwall landform has been constructed in accordance with the final design. MM2.2 Bund wall remains in place. MM2.3 Fencing with appropriate signage in place. MM2.4 The residual void is safe for humans, livestock and wildlife. MM2.5 The water level and water quality in the void will not cause harm to the surrounding environment, as demonstrated by groundwater level, quality monitoring and modelling. MM2.6 Voids retain flood immunity, supported by flood modelling re-run at end of life and calibrated against the final landform. MM2.7 Erosion of the final landform within the NUMA area will not negatively impact on the stability of any adjacent rehabilitation areas, or their ability to retain their PMLU. MM2.8 The residual void will not present an unacceptable risk of environmental harm. MM2.9 Voids remain a sink for groundwater. MM2.10 Independent AQP certifies achievement of **MM2.1** to **MM2.9** (inclusive).

Section F – Tables and Figures

Figure 3 – Final Landform Design

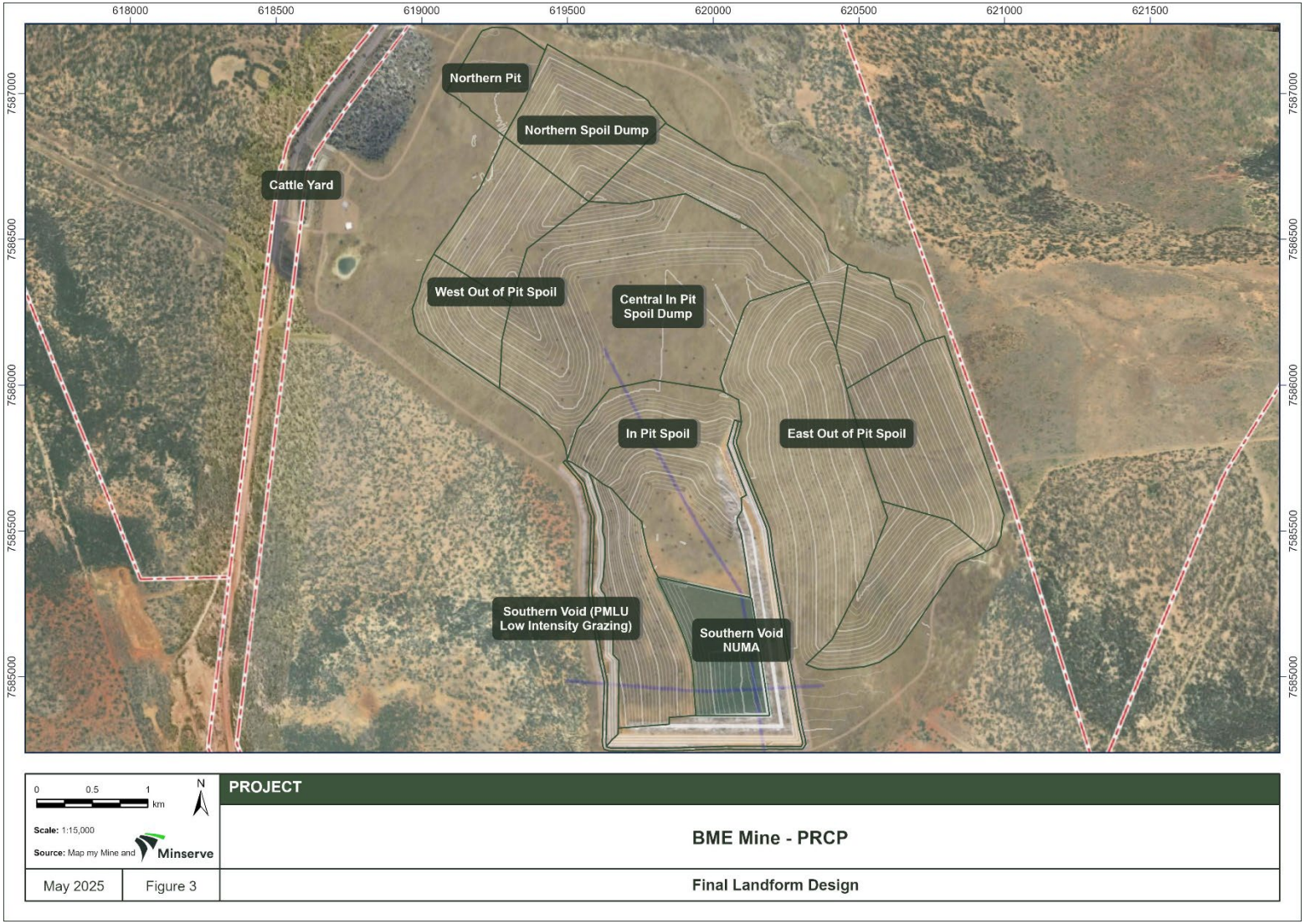


Table 1. Erosion classification framework

Erosion classification	Minor	Moderate	Severe
Sheet erosion	Shallow soil deposits downslope.	Partial exposure of roots; moderate soil deposits downslope.	Loss of surface horizon; subsoil exposure; root exposure; substantial soil deposits downslope.
Rill	<15 rills/transect*	15-30 rills per transect*	>30 rills per transect*
Gully erosion	<0.3m deep	<0.3m deep	>0.3m deep
Tunnel erosion	Absent	Absent	Present
Mass movement	Absent	Absent	Present

Source: NCST (2009) *Australian Soil and Land Survey Field Handbook, 3rd edition*. The National Committee on Soil and Terrain. CSIRO Publishing, Collingwood, Australia.

*Transect 100 m across the contour (Source: Tongway, D. J. and Hindley, N. L. 2005. Landscape Function Analysis: Procedures for Monitoring and Assessing Landscapes. CSIRO Publishing, Canberra, Australia.

Table 2 – Species list and seeding rates for grazing PMLU.

	Scientific Name	Common Name
Grasses	*Heteropogon contortus*	Black Speargrass
	Bothriochloa bladhi	Forest Bluegrass
	Dichanthium sericeum	Queensland Bluegrass
	Bothriochloa insculpta	Creeping Bluegrass
	Urochloa mosambicensis	Sabi Grass
	Themeda tiandra	Kangaroo Grass
	Chrysopogon fallax	Perennial tufted Grass
	Echinochloa esculenta	Japanese Millet
Legume	*Stylosanthes spp.*	Stylo species
	Clitoria ternatea	Butterfly Pea
Minimum total sowing rate		**20kg/ha**
Trees	*Eucalyptus crebra*	Narrow-leaved Ironbark
	Eucalyptus populnea	Poplar box
	Corymbia maculata	Spotted gum
Minimum total sowing rate		**5kg/ha**

Table 3. Surface water quality limits

Quality characteristic (units)	Limit	Comment on limit
pH	6.5-8.5	Site-specific
Electrical Conductivity (µS/cm)	720	WQO
Turbidity (NTU)	50	WQO
Sulphate (mg/L)	25	WQO
Aluminium - dissolved (µg/L)	55	ANZG 2018
Arsenic - dissolved (µg/L)	13	ANZG 2018
Mercury - dissolved (µg/L)	0.06	ANZG 2018
Molybdenum - dissolved (µg/L)	150	ANZECC
Selenium - dissolved (µg/L)	5	ANZG 2018
Cadmium - dissolved (µg/L)	0.2	ANZG 2018
Chromium - dissolved (µg/L)	1	ANZG 2018
Copper - dissolved (µg/L)	1.4	ANZG 2018
Lead - dissolved (µg/L)	3.4	ANZG 2018
Nickel - dissolved (µg/L)	11	ANZG 2018
Zinc - dissolved (µg/L)	8	ANZG 2018
Total recoverable hydrocarbons (C6-C9) (µg/L)	20	Limit of reporting (LoR)
Total recoverable hydrocarbons (C10-C36) (µg/L)	100	Limit of reporting (LoR)
Major ions (mg/L) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	For interpretation purposes only	
Hardness (mg/L)	For interpretation purposes only	

Notes:

- All metals and metalloids must be measured as ‘dissolved’ (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- WQO: Environmental Protection (Water) Policy 2009: Isaac River Sub-Basin Environmental Values and Water Quality Objectives.
- ANZG 2018: ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection)
- ANZECC stock water drinking guideline

Table 4. Surface water monitoring locations

Monitoring Locations	Receiving waters location description	Latitude (GDA2020)	Longitude (GDA2020)
Upstream monitoring locations			
MP3/GS2	On-lease, along Hat Creek at the convergence of two watercourse systems from the east	-21.81498277	148.1640041
MP4	Off-lease, along Hat Creek	-21.82398417	148.1850031
Downstream monitoring locations			
MP1/GS1	Off-lease, at the convergence of Hat Creek and a tributary system from the south-east.	-21.81498332	148.13801
MP2	On-lease, along Hat Creek, near the MAW release point and adjacent to the haul road	-21.81199765	148.1530002

Figure 4 – Surface water monitoring locations

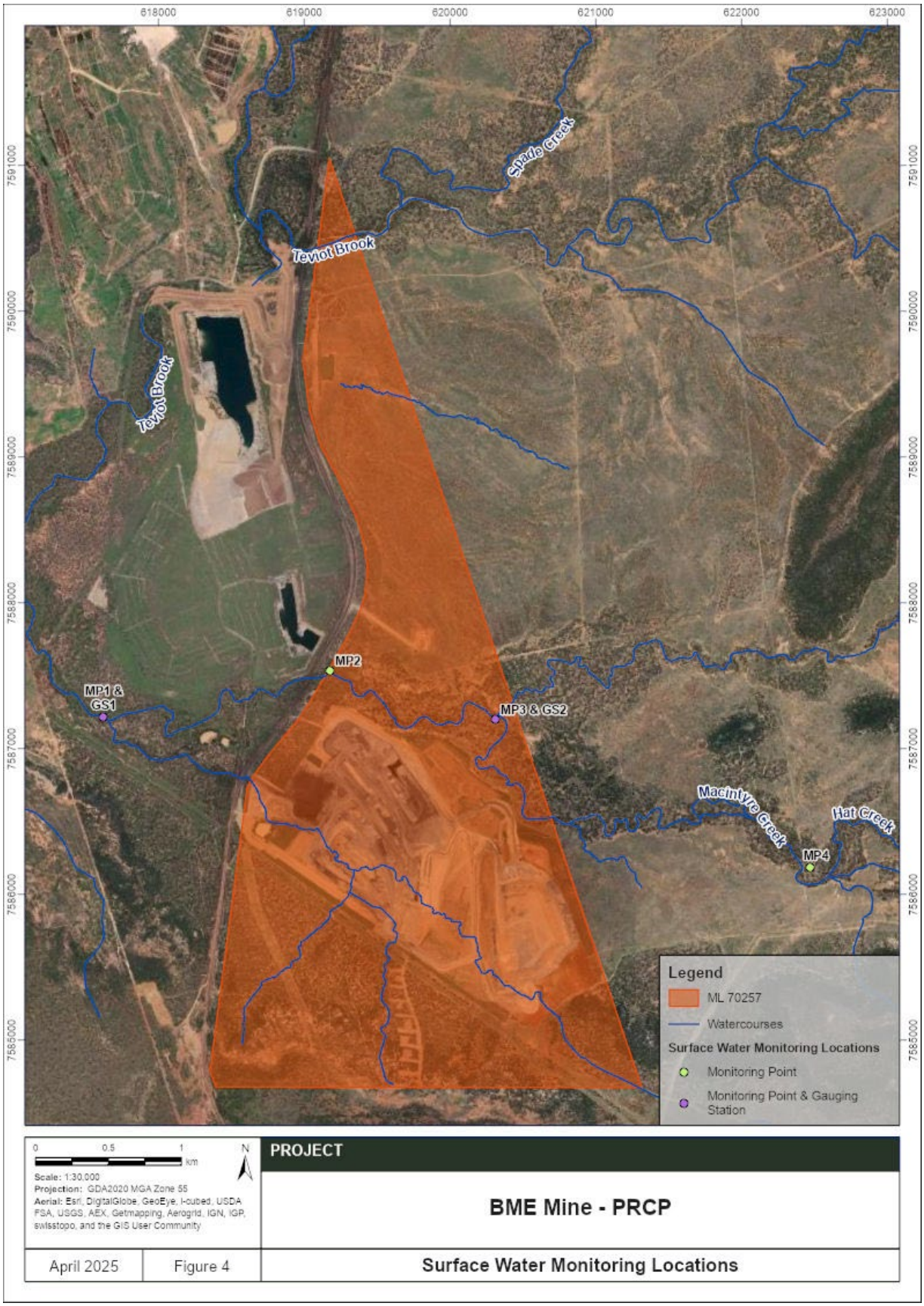


Table 5. Groundwater monitoring locations

Monitoring Bore	Hydrogeological Unit	Latitude (GDA 2020)	Longitude (GDA2020)
Compliance			
MBBE0001	Rangal Coal Measures	-21.831212	148.159699
MBBE0009	Rangal Coal Measures	-21.819565	148.164622
MBBE0007	Rewan Group	-21.82223	148.167326
Interpretation			
MBBE0003	Tertiary basalt	-21.837738	148.145652
MBBE0002	Tertiary Sediments	-21.831865	148.146012
MBBE0008	Rangal Coal Measures	-21.833961	148.163996
MBBE0012	Rangal Coal Measures	-21.837559	148.159216
MBBE0004	Alluvium	-21.816943	148.162893
MBBE0010	Rewan Group	-21.819459	148.164817
MBBE0011	Alluvium	-21.813288	148.154056
New shallow bore	Alluvium	TBA*	TBA*

Note:

* New bore to be drilled within the location shown by the green circle of Figure 5.

Figure 5 – Groundwater Monitoring Locations

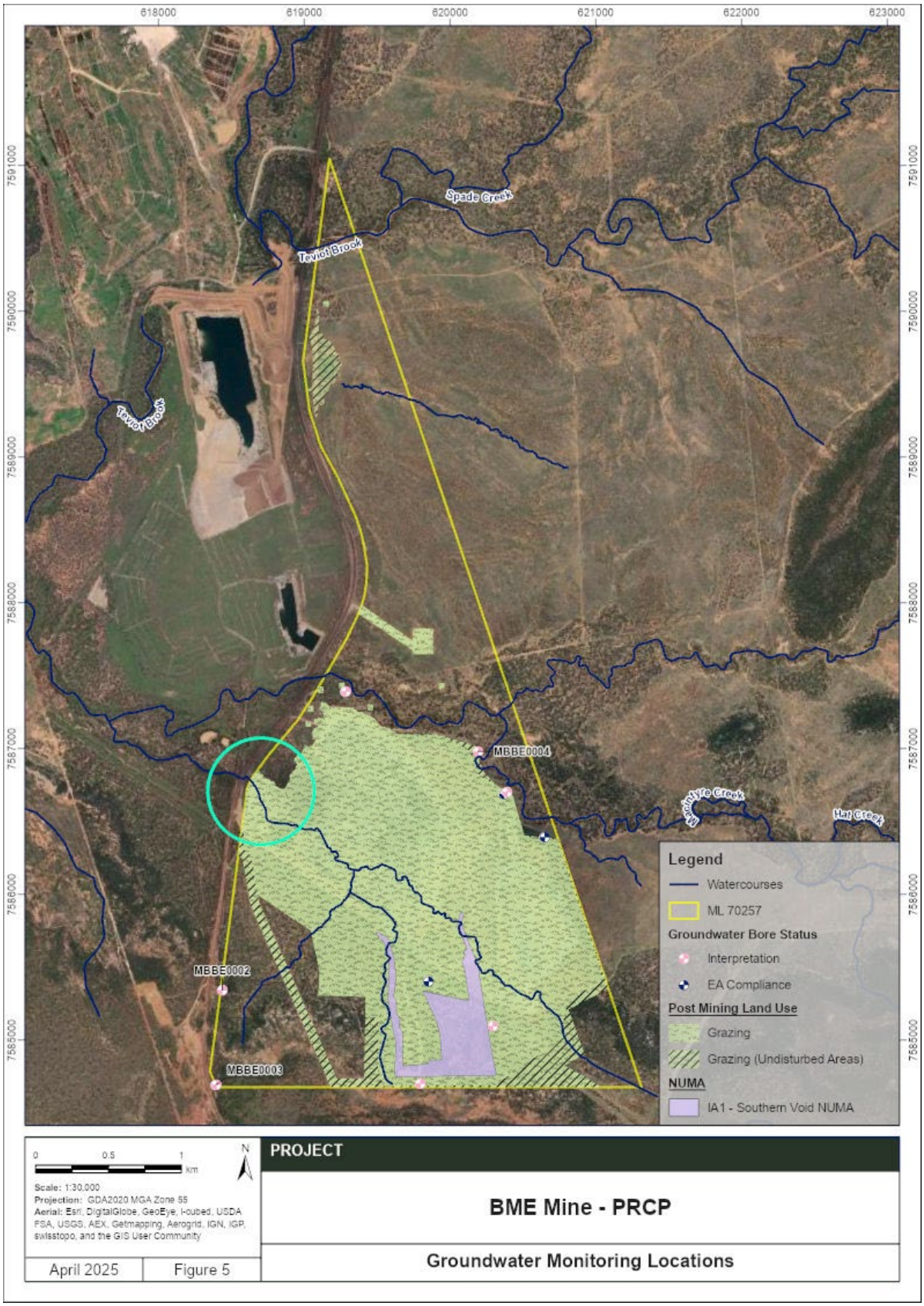


Table 6. Groundwater quality limits

Quality characteristic (units)	Monitoring Bore	Limit	Comment on limit
pH (pH units)	All bores	6.5 – 8.5	Site-specific
Electrical conductivity (µS/cm)	MBBE0007	48600	Site-specific
	MBBE0001	901.7	Site-specific
	MBBE0009	16000	Isaac River Sub-basin Environmental Values and WQO
Sulfate (mg/L)	MBBE0007	961.5	Site-specific
	MBBE0001 and MBBE0009	398	Isaac River Sub-basin Environmental Values and WQO
Aluminium - dissolved (µg/L)	All bores except MBBE0001	55	ANZG 2018
	MBBE0001	80	Site-specific
Arsenic - dissolved (µg/L)	All bores	13	ANZG 2018
Mercury - dissolved (µg/L)	All bores	0.06	ANZG 2018
Molybdenum - dissolved (µg/L)	MBBE0007	26.4	Site-specific
	MBBE0001 and MBBE0009	34	ANZG 2018
Selenium - dissolved (µg/L)	All bores	5	ANZG 2018
Cadmium - dissolved (µg/L)	All bores	0.2	ANZG 2018
Chromium - dissolved (µg/L)	All bores	1	ANZG 2018
Copper - dissolved (µg/L)	All bores	1.4	ANZG 2018
Lead - dissolved (µg/L)	All bores	3.4	ANZG 2018
Nickel - dissolved (µg/L)	All bores	11	ANZG 2018
Zinc - dissolved (µg/L)	All bores	8	ANZG 2018
Major ions (mg/L) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	All bores		For interpretation purposes only
Hardness (mg/L)	All bores		For interpretation purposes only
Water level (mAHD)	All bores		For interpretation purposes only

Notes:

- All metals and metalloids must be measured as ‘dissolved’ (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection)
- Site-specific limits based on data from Appendix M of the rehabilitation part, and WaTERS for MBBE0001, MBBE0007, MBBE0009.

END OF **PRCP** SCHEDULE