PRCP schedule

Environmental Protection Act 1994

P-PRCP-100987739 Millennium

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

PRCP schedule: P-PRCP-100987739_V2

PRCP schedule holder(s)

Name(s)	Registered address
Metres Pty Ltd	Level 32, 12 Creek Street, Brisbane City, QLD, 4000 Australia

Location details

Location(s)
ML70344, ML70457, ML70313, ML70485, ML70401, ML70483

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

08 May 2026

Date

Jason Dunlop

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

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DELIVERING FOR QUEENSLAND | Queensland Government

PRCP schedule

Environmental Protection Act 1994

P-PRCP-100987739 Millennium

This PRCP schedule is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

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 - Final site design and reference maps
- Section C – Definitions
- Section D - Post mining land uses
- Section E - Non-use management areas
- Section F – Appendix

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PRCP schedule

Environmental Protection Act 1994

P-PRCP-100987739 Millennium

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

1 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 The holder must, for each rehabilitation and improvement area, achieve the corresponding rehabilitation or management milestone criterion (milestone reference):

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

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

PRCP2 Where an area achieves a rehabilitation or management milestone, it must continue to comply with the criteria for that milestone until the next milestone is achieved. For the final rehabilitation or management milestone, compliance with the criteria for the final milestone must be maintained until the area is progressively certified in accordance with the EP Act requirements or the area is surrendered.

PRCP3 The holder must carry out monitoring in accordance with:

a) any requirement under this schedule; and
b) as necessary to demonstrate achievement of each rehabilitation milestone or management milestone criteria.

PRCP4 The holder must keep up to date records in relation to relevant matters until the relevant environmental authority (EPML00819213) has been surrendered and must provide such records to the administering authority on request. Relevant matters for this condition include, but are not necessarily limited to, the following:

a) rehabilitation, maintenance and monitoring activities, and the results of these activities;

b) designs, drawings, specifications or any similar documents required under this schedule;

c) certifications, assessments, investigations, inspections, audits or any similar processes required under this schedule.

PRCP5 Records made under Error! Reference source not found. must be provided to the administering authority in the specified format within 10 business days of a written request or a longer duration as agreed by the administering authority.

PRCP6 All Appropriately Qualified Person/Suitably Qualified person (AQP/SQP) designs, specifications, certifications, assessments and any similar documents, must:

a) include documented consideration of any relevant guideline or publication material, including material published by the administering authority;
b) detail the boundary conditions (of any model);
c) detail any assumptions made, limitations and areas of uncertainty; and
d) must contain sufficient detail to allow for independent peer review and substantiation.

PRCP7 Disturbance due to exploration and minor ancillary activities in areas not planned to be mined and not within a Rehabilitation Area in this schedule must be rehabilitated in accordance with the provisions detailed in the '*Eligibility criteria and standard conditions for exploration and mineral development projects'* or its successor, with the exception that land must be rehabilitated to a stable condition and achieves the pre-disturbance land use as detailed in **Figure 1 – Final Site Design.**

PRCP8 Closure groundwater and water balance model predictions must be rerun if there is a change to the final landform design that would affect the model predictions and requires an amendment to this schedule, and at the last management milestone in this schedule.

PRCP9 With respect to surface water:

a) Surface water quality must be monitored monthly during flow events (whenever there is sufficient flow as determined by an AQP) at, *but not limited to,* upstream and downstream locations specified in PRCP schedule **Appendix 10 and 10.1: Surface water monitoring locations**, must not exceed the limits in PRCP schedule **Appendix 11: Surface water quality limits**, for a minimum of 5 consecutive years immediately prior to surrender;
b) If the surface water quality exceeds **Appendix 11: Surface water quality limits**, 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.

PRCP10 With respect to groundwater:

a) The groundwater levels and quality must be monitored quarterly at, but not limited to, bores specified in PRCP schedule **Appendix 12 and 12.1: Groundwater monitoring locations**, for all quality characteristics listed in PRCP schedule **Appendix 13: Groundwater quality limits** for a minimum of five consecutive years immediately prior to surrender; and
b) Groundwater quality results must not exceed the limits in PRCP schedule **Appendix 13: Groundwater quality limits**, for 3 consecutive results within the five-year immediately prior to surrender.

END OF CONDITIONS

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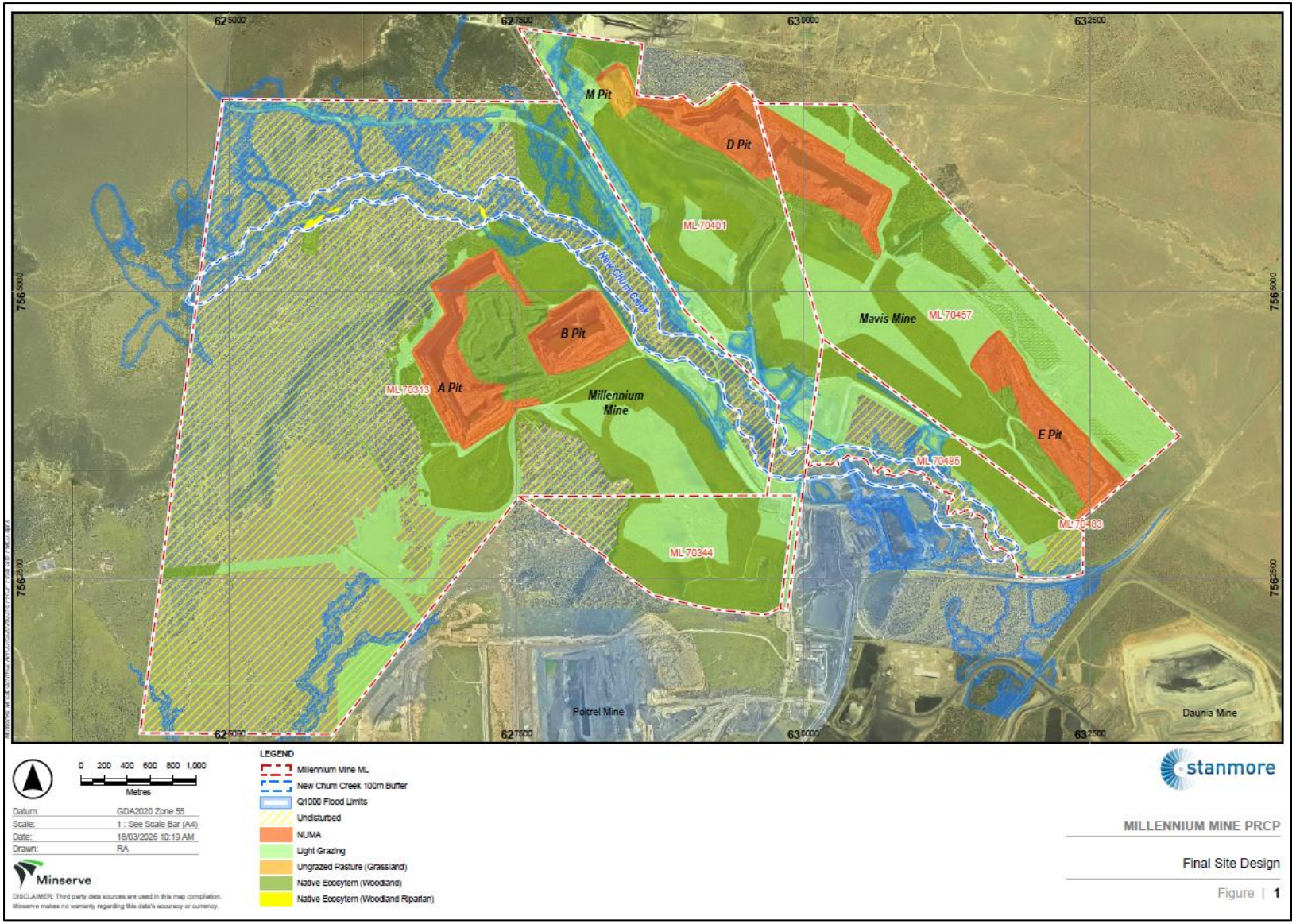
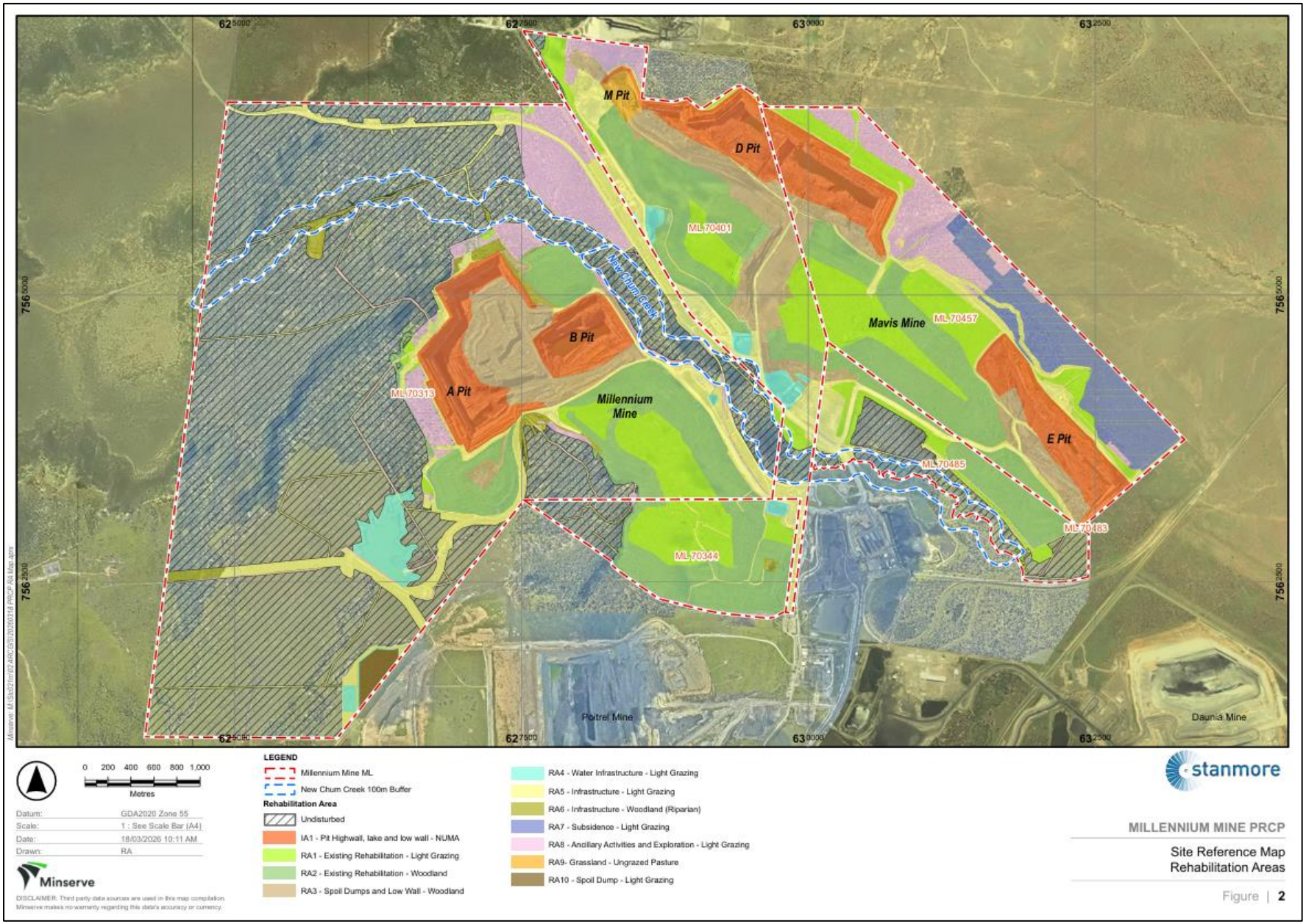
2 Section B - Final site design and reference maps




M Pit
D Pit
ML 70401
New Chum Creek
Mavis Mine
ML 70457
B Pit
A Pit
ML 70313
Millennium Mine
E Pit
ML 70485
ML 70483
ML 70344
Poitrel Mine
Daunia Mine
LEGEND
Millennium Mine ML
New Chum Creek 100m Buffer
Rehabilitation Area
Undisturbed
IA1 - Pit Highwall, lake and low wall - NUMA
RA1 - Existing Rehabilitation - Light Grazing
RA2 - Existing Rehabilitation - Woodland
RA3 - Spoil Dumps and Low Wall - Woodland
RA4 - Water Infrastructure - Light Grazing
RA5 - Infrastructure - Light Grazing
RA6 - Infrastructure - Woodland (Riparian)
RA7 - Subsidence - Light Grazing
RA8 - Ancillary Activities and Exploration - Light Grazing
RA9- Grassland - Ungrazed Pasture
RA10 - Spoil Dump - Light Grazing
0 200 400 600 800 1,000
Metres
Datum: GDA2020 Zone 55
Scale: 1 : See Scale Bar (A4)
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Minserve
DISCLAIMER: Third party data sources are used in this map compilation. Minserve makes no warranty regarding this data's accuracy or currency.
stanmore
MILLENNIUM MINE PRCP
Site Reference Map
Rehabilitation Areas
Figure | 2

3 Section C – 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; and (b) rehabilitating a place after it has been used for carrying out the activity.
Annual Exceedance Probability (AEP)	the probability that a given rainfall total accumulated over a given duration will be exceeded in any one year.
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.
Third party AQP	means an AQP who is not the PRCP schedule holder.
Independent AQP	means an AQP who is not the PRCP schedule holder and has not previously provided advice on the subject matter.
Major earthworks	large scale movement of materials like soil, rock with use of machines to reshape, regrade the landscape, stabilise slopes to create safe, stable landform to sustain a designated post-mine land use or a non-use management area.
Light grazing	means grazing on land suitability assessment (LSA) Class 4 which is not suitable for a sustained grazing PMLU but may be grazed for short periods (e.g., land stewardship purposes). This requires careful management of stocking rates and pasture condition to prevent land and water degradation.
Rehabilitation activity	means any activity that the holder is required to carry out in relation to this PRCP schedule.
Relevant material	includes: i. Final landform design report, ii. All monitoring data iii. Assessment of monitoring data, iv. All maintenance records; and v. Modelling and technical assessments.

Rill	a rill is a channel excavated by water, less than 0.3 m deep.
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 Fourth Edition).
Stable condition	see section 111A of the *Environmental Protection Act 1994*.
Suitably qualified and experienced 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.
Subsidence	means the gradual or sudden sinking, lowering, or collapse of the ground surface due to underground mining activities.
Vegetative groundcover	means plants, plant litter, tree leaf litter, twigs, mulch and woody debris capable of protecting the soil surface from erosion
Water cap	the residual void fills to its long term equilibrium level, permanently submerging the underlying tailings material.
Weed	Weed include: • Category 3 restricted invasive plant species, defined by the Biosecurity Act 2014; and • Weeds of National Significance, defined by Invasive Plants and Animals Committee 2016, Australian Weeds Strategy 2017 to 2027, Australian Government Department of Agriculture and Water Resources, Canberra.

4 Section D – Post mining land uses

4.1 (RA1) Rehabilitation area 1

Post-mining land uses (PMLU)	
Rehabilitation area	RA1
Relevant activities	Existing Rehabilitation
Total rehabilitation area size (ha)	290.1
Commencement of first milestone: RM7	10-12-2025
PMLU	Light Grazing
Date area is available	10-12-2025
Cumulative area available (ha)	290.1
Milestone completed by	10-12-2030
Milestone Reference	**Cumulative area achieved (ha)**
RM7	290.1

(RA2) Rehabilitation area 2

Post-mining land uses (PMLU)			
Rehabilitation area	RA2		
Relevant activities	Existing Rehabilitation		
Total rehabilitation area size (ha)	492.0		
Commencement of first milestone: RM5	10-12-2025		
PMLU	Woodland Habitat		
Date area is available	10-12-2025	10-12-2035	10-12-2040
Cumulative area available (ha)	492.0	492.0	492.0
Milestone completed by	10-12-2035	10-12-2040	10-12-2050
Milestone Reference	**Cumulative area achieved (ha)**		
RM5	492.0		
RM6		492.0	
RM7			492.0

(RA3) Rehabilitation area 3

Post-mining land uses (PMLU)					
Rehabilitation area	RA3				
Relevant activities	Spoil Dumps and Low Wall				
Total rehabilitation area size (ha)	208.7				
Commencement of first milestone: RM3	10-12-2025				
PMLU	Woodland Habitat				
Date area is available	10-12-2025	10-12-2035	10-12-2040	10-12-2040	10-12-2045
Cumulative area available (ha)	59.0	171.6	208.7	208.7	208.7
Milestone completed by	10-12-2030	10-12-2035	10-12-2040	10-12-2045	10-12-2055
Milestone Reference	**Cumulative area achieved (ha)**				
RM3	28.2	171.6	177.8		
RM4	59.0	150.0	208.7		
RM5	59.0	150.0	208.7		
RM6		59.0	150.0	208.7	
RM7			59.0	150.0	208.7

(RA4) Rehabilitation area 4

Post-mining land uses (PMLU)			
Rehabilitation area	RA4		
Relevant activities	Water Infrastructure		
Total rehabilitation area size (ha)	48.1 ha		
Commencement of first milestone: RM3	10-12-2035		
PMLU	Light Grazing		
Date area is available	10-12-2035	10-12-2040	10-12-2045
Cumulative area available (ha)	48.1	48.1	48.1
Milestone completed by	10-12-2040	10-12-2045	10-12-2050
Milestone Reference	**Cumulative area achieved (ha)**		
RM3	48.1		
RM4	48.1		
RM5	48.1		
RM6		48.1	
RM7			48.1

(RA5) Rehabilitation area 5

Post-mining land uses (PMLU)								
Rehabilitation area	RA5							
Relevant activities	Infrastructure - roads, cleared areas, topsoil stockpiles, laydowns							
Total rehabilitation area size (ha)	284.3							
Commencement of first milestone: RM1	10-12-2025							
PMLU	Light grazing							
Date area is available	10-12-2025	10-12-2035	10-12-2040	10-12-2045	10-12-2050	10-12-2055	10-12-2060	10-12-2065
Cumulative area available (ha)	14.6	24.6	54.6	100.6	284.3	284.3	284.3	284.3
Milestone completed by	10-12-2035	10-12-2040	10-12-2045	10-12-2050	10-12-2055	10-12-2060	10-12-2065	10-12-2070
Milestone Reference	**Cumulative area achieved (ha)**							
RM1	14.6	24.6	54.6	100.6	284.3			
RM2	14.6	24.6	54.6	100.6	284.3			
RM3	14.6	24.6	54.6	100.6	284.3			
RM4		14.6	24.6	54.6	100.6	284.3		
RM5		14.6	24.6	54.6	100.6	284.3		
RM6			14.6	24.6	54.6	100.6	284.3	
RM7				14.6	24.6	54.6	100.6	284.3

(RA6) Rehabilitation area 6

Post-mining land uses (PMLU)								
Rehabilitation area				RA6				
Relevant activities				Infrastructure - roads, cleared areas, topsoil stockpiles, laydowns				
Total rehabilitation area size (ha)				22.6				
Commencement of first milestone: RM1				10-12-2025				
PMLU				Woodland Habitat				
Date area is available	10-12-2025	10-12-2035	10-12-2040	10-12-2045	10-12-2050	10-12-2055	10-12-2060	10-12-2065
Cumulative area available (ha)	1.0	2.0	3.0	4.0	22.6	22.6	22.6	22.6
Milestone completed by	10-12-2035	10-12-2040	10-12-2045	10-12-2050	10-12-2055	10-12-2060	10-12-2065	10-12-2075
Milestone Reference	**Cumulative area achieved (ha)**							
RM1	1.0	2.0	3.0	4.0	22.6			
RM2	1.0	2.0	3.0	4.0	22.6			
RM3	1.0	2.0	3.0	4.0	22.6			
RM4		1.0	2.0	3.0	4.0	22.6		
RM5		1.0	2.0	3.0	4.0	22.6		
RM6			1.0	2.0	3.0	4.0	22.6	
RM7				1.0	2.0	3.0	4.0	22.6

(RA7) Rehabilitation area 7

Post-mining land uses (PMLU)			
Rehabilitation area	RA7		
Relevant activities	Subsidence Area		
Total rehabilitation area size (ha)	74.8		
Commencement of first milestone: RM5	10-12-2025		
PMLU	Light Grazing		
Date area is available	10-12-2025	10-12-2030	10-12-2035
Cumulative area available (ha)	74.8	74.8	74.8
Milestone completed by	10-12-2030	10-12-2035	10-12-2040
Milestone Reference	**Cumulative area achieved (ha)**		
RM5	74.8		
RM6		74.8	
RM7			74.8

(RA8) Rehabilitation area 8

Post-mining land uses (PMLU)	
Rehabilitation area	RA8
Relevant activities	Ancillary Activities and Exploration
Total rehabilitation area size (ha)	166.0
Commencement of first milestone: RM7	10-12-2040
PMLU	Woodland Habitat
Date area is available	10-12-2040
Cumulative area available (ha)	166.0
Milestone completed by	10-12-2045
Milestone Reference	**Cumulative area achieved (ha)**
RM7	166.0

(RA9) Rehabilitation area 9

Post-mining land uses (PMLU)			
Rehabilitation area	RA9		
Relevant activities	Overburden Dumps and Rejects		
Total rehabilitation area size (ha)	8.7		
Commencement of first milestone: RM3	10-12-2025		
PMLU	Grassland - Ungrazed Pasture		
Date area is available	10-12-2025	10-12-2040	10-12-2045
Cumulative area available (ha)	8.7	8.7	8.7
Milestone completed by	10-12-2040	10-12-2045	10-12-2050
Milestone Reference	**Cumulative area achieved (ha)**		
RM3	8.7		
RM4	8.7		
RM5	8.7		
RM6		8.7	
RM7			8.7

(RA10) Rehabilitation area 10

Post-mining land uses (PMLU)				
Rehabilitation area	RA10			
Relevant activities	Spoil Dump (extended Poitrel OOPD on ML70313)			
Total rehabilitation area size (ha)	9.6			
Commencement of first milestone: RM3	10-12-2030			
PMLU	Light Grazing			
Date area is available	10-12-2030	10-12-2035	10-12-2040	10-12-2045
Cumulative area available (ha)	9.6	9.6	9.6	9.6
Milestone completed by	10-12-2035	10-12-2040	10-12-2045	10-12-2060
Milestone Reference	**Cumulative area achieved (ha)**			
RM3	9.6			
RM4		9.6		
RM5		9.6		
RM6			9.6	
RM7				9.6

4.2 Rehabilitation area milestones

Milestone reference	Rehabilitation milestone	Milestone criteria
RM1	Infrastructure decommissioning and removal	1.1 Other than as required by this schedule or agreed to be retained by the landholder (as evidenced by landholder agreement): a) All services are disconnected and decommissioned; b) All buildings are demolished and/or removed offsite; c) All hardstands, concrete areas, road materials (bitumen and gravel) are removed; d) All mine roads, access tracks and fences are removed; e) All pipelines are drained and removed; f) All waste removed from site unless authorised by the Environmental Authority (EPML00819213) for disposal onsite; g) All exploration drill holes rehabilitated in accordance with the eligibility criteria and standard conditions for exploration and mineral development projects – V2 (DEHP 2016); h) Infrastructure required for the ongoing health and safety of operators such as road safety bunds are to be retained until deemed safe to remove in accordance with the *Coal Mining Safety and Health Act 1999*; i) All dams dewatered, desilted and liners removed;

		j) Watercourse crossings and culverts, excluding retained infrastructure, removed; k) All machinery and equipment, not required for rehabilitation works removed; and l) Infrastructure to be retained for use by underlying landholders, deemed fit for purpose and accepted by signed agreement from the underlying landholder. 1.2 Underground mining infrastructure, equipment are removed and construction of seal from surface into the underground workings complies with regulation 325 of the *Queensland Coal Mining Safety and Health Regulations 2020* (CMSHR) to prohibit unauthorised access to underground workings. 1.3 For all surface to seam boreholes (including but not limited to, exploration bores, water monitoring bores, dewatering bores, ventilation and gas drainage bores must: a) grouted and/or plugged; b) capped 0.5m below surface; and c) exploration bores decommissioned in accordance with '*Eligibility criteria and standard conditions for exploration and mineral development projects*.'
RM2	Identification and remediation of contaminated land	2.1 Contaminated land investigations (investigation, remediation and validation) completed in accordance with the *Environmental Protection Act (1994)* EP Act, including a site investigation report, and if required, a validation report and/or a draft Site Management Plan. 2.2 A Contaminated Land Auditor certifies that no contamination unsuitable for the PMLU remains or is occurring.

RM3	Landform development and reshaping/reprofiling	**The following criteria apply to all RA's unless otherwise specified:** 3.1 All major earthworks completed, slopes and general reshaping and pushing/ trimming are completed in accordance with the design specification provided by an AQP. 3.2 Erosion and sediment control systems are designed by an AQP, installed where required and demonstrated to be fit for purpose. 3.3 Final landform drainage installed as designed by AQP where required. 3.4 Final rehabilitated landforms assessed as geotechnically stable by an AQP with a factor of safety (FOS) of ≥1.5. 3.5 AQP confirms that final landform (out of pit dump) associated with the north-eastern side of the A and B pit as shown in the **PRCP schedule Appendix 1: Location of scour protection for PMF event** continue to provide flood protection to the voids to at least the 0.1% AEP flood event plus 0.5m freeboard. 3.6 The final landform (out of pit dump) as per RM3.5 established with native vegetation suitable to resist erosion at the toe of the landform in the 0.1% AEP event. 3.7 Where the final landform (out of pit dump) locations as per RM3.5 interact with PMF flood velocities greater than 3 m/s, non-erosive materials and/or rock mulch are selectively placed in the locations and sized as shown per PRCP schedule **Appendix 1: Location of scour protection for PMF event** ensuring that the rock covers the wetted perimeter of the toe in the specified locations. **Light Grazing** 3.8 The rehabilitated landform reshaped to: • For RA4 slopes of ≤5%. • For RA5 slopes are ≤10%.

- For RA10 slopes are ≤15%.

3.9 All legacy reject encapsulation cells within rehabilitated out of pit dumps remain intact and are not exposed through erosion or other forms of weathering (RA1).

3.10 If to be maintained at closure, the portions of final landforms (dirt roads) as shown in **PRCP schedule Appendix 2: PMF event high velocity areas**, where peak flood velocities predicted to exceed 3.5 m/s, should apply 300mm d50 rock on either side of the dirt road or other mitigation measures to control potential flood damage.

Woodland Habitat

3.11 The rehabilitated landform reshaped to:

- For RA3 all external draining slopes are ≤33.33% overall.
- For RA6 slopes are ≤10%.

3.12 All legacy reject encapsulation cells within rehabilitated out of pit dumps remain intact and are not exposed through erosion or other forms of weathering (RA2).

3.13 As part of erosion control for RA3:

- Continuous slope length restricted to 100m by installation of appropriate erosion control measures as determined by an AQP; or
- A topsoil/permian rock mulch layer placed over the reshaped overburden at a depth of 100mm and ripped to depths between 300-800mm.

3.14 Reshape watercourse crossings to a profile similar to the pre-disturbance condition (RA6).

3.15 Disturbed natural watercourse bed and banks returned to a profile similar to the pre-disturbance condition (RA6).

		Grassland – Ungrazed Pasture (RA9) 3.16 For rejects disposal in M pit an AQP to determine appropriate type of cover based on geochemical and geotechnical characterisation of tailings and rejects, which at minimum achieves the following: a) Tailings and rejects to be capped with at least 2m of competent benign spoil or of a thickness determined by an AQP; b) Reduces risk of upward movement of contaminants into the topsoil layer above the cover and reduce risk of environmental harm from contaminated seepage; c) RA9 reshaped with overall slopes ≤33.33%; and d) Landform surface to drain into residual void (IA1). **Underground Mining (RA7)** 3.17 Surface above underground mining areas maintain pre-mining contour ± 50mm. **Retained water structure** 3.18 Water storages are safe for stock access and have vegetated banks.
RM4	Surface preparation	**All RAs except RA1, RA2, RA7 and RA8.** 4.1 Assessment of growth media characteristics and the development of an amelioration and physical treatment plan is completed by an AQP to achieve the target vegetation establishment, prior to growth media placement. 4.2 Ameliorant and physical treatments such as fertiliser, lime, gypsum and/or organic matter are applied as identified by AQP through assessment of growth media as per RM4.1. 4.3 Deep ripping of compacted surfaces, at least 300mm into soil/subsoil profile along contour of slopes.

		4.4 Remediate any erosion or subsidence by, but not limited to, addition of rock and/or log cover to assist erosion resistance of eventual vegetative groundcover. **RA1 & RA2 Existing Rehab** 4.5 Based on AQP advice, if need be, appropriate amelioration measures implemented to ensure growth media supports target vegetation development as per designated PMLU. **Light Grazing and Grassland** 4.6 Growth media spread at a depth of at least 150mm for RA4, RA5, RA7(if required for subsidence or associated surface disturbance), RA10 and RA9. **Woodland Habitat** 4.7 Growth media depth of at least 100mm, spread over RA3, RA6 and RA8 (for RA8 if disturbed) where possible.
RM5	Revegetation	**Light Grazing RA4, RA5, RA7, RA10 and Grassland RA9** 5.1 Completed seeding using a selection of species and application rates outlined in **PRCP schedule Appendix 3 : Seed species list and application rate for light grazing and grassland revegetation.** 5.2 A seed mix and a rate consistent with **PRCP schedule Appendix 3**: **Seed species list and application rate for light grazing** used for revegetation of disturbance areas associated with underground mining surface infrastructure areas within RA7. **Woodland Habitat RA6 (certain areas within RA6 - Riparian)** 5.3 Completed seeding using a selection of species and application rates outlined in **PRCP schedule Appendix 4: Recommended species to be established**

		for woodland habitat riparian revegetation to establish Woodland Habitat Riparian (RE 11.3.4) at locations specified in **Appendix 4.1: PMLU woodland habitat remnant locations**. **Woodland Habitat RA2 & RA3, RA6 & RA8** (For RA8 limited to disturbed area only) 5.4 Completed seeding using a selection of species and application rates outlined in **PRCP schedule Appendix 5**: Recommended species to be established for woodland habitat revegetation (RE 11.10.1) or other planting methods (e.g. tube stock planting) to establish Woodland Habitat.
RM6	Achievement of surface requirements	**All RAs (Except RA1 and RA8)** 6.1 With respect to erosion in rehabilitated landforms: a) AQP certifies there are no active areas of rill or gully erosion present as per **PRCP schedule Appendix 9: Erosion classification framework** and all active erosion has been identified and remediation activities have been completed; b) The remediated erosion does not impact achieving the PMLU; and c) Mass movement and tunnel erosion are absent. 6.2 All temporary Erosion and Sediment Controls (ESC) are confirmed by an AQP to be safe to remove from site. 6.3 Permanent drainage structures have been reviewed and endorsed by third party AQP as appropriate to the landform, materials and PMLU, with consideration given to long term performance and stability. 6.4 Weeds of National Significance presence is <10% of total vegetative groundcover as confirmed by an AQP. 6.5 Species used in revegetation remain present and show evidence of natural recruitment based on rehabilitation monitoring data.

		6.6 Surface water runoff from rehabilitation areas collected at appropriate location/s determined by an AQP for monitoring surface water runoff quality when surface flows occur and when it is safe to do so (RA1, RA2, RA3 and RA10). 6.7 Surface water runoff monitoring in accordance with RM6.6 shows surface water runoff is non-polluting to receiving waters when compared to the upstream catchment values for pH, EC and turbidity. **Woodland Habitat (RA2, RA3, RA8) & Riparian (RA6) PMLUs** 6.8 Groundcover ≥80% comprising of at least 50% vegetation and 30% rock, logs, leaf, litter etc. with no bare areas greater than 100 m^2. **Light Grazing PMLU (RA1, RA4, RA5, RA7 and RA10) and Grassland (RA9)** 6.9 Vegetative groundcover is ≥70% with no bare areas greater than 100 m^2. 6.10 Western Dam stored water quality meets the requirements for stock watering under the ANZECC Guidelines. 6.11 Achievement of land class 4 as per Guidelines for Agricultural Land Evaluation in Queensland for RA4, RA5, RA7 and RA10. 6.12 Subsided areas in RA7 do not have residual ponding, and overland flows and surface runoff drain freely from these areas. 6.13 If subsidence monitoring shows an exceedance of the following trigger levels remediate with **RM6.12**: a) LiDAR sourced topography >100mm movement when LiDAR surfaces are compared on an annual basis; and b) Impact has been identified by an AQP as requiring remediation. 6.14 For RA7, remediate any erosion or subsidence by, but not limited to:

		a) Addition of rock and/or log cover to assist erosion resistance of eventual vegetative groundcover; b) Filling and ripping of surface cracks greater than 20cm wide to a depth as required prior to growth media application; and c) If required application of topsoil as per RM4.6 for surface areas in RA7 that are impacted by subsidence, using a seed mix and a rate consistent with PRCP schedule **Appendix 3: Seed species list and application rate for light grazing and grassland revegetation.**
RM7	Achievement of post-mining land use to a stable condition	The following criteria apply to all RA's unless otherwise specified: 7.1 Final landform survey confirms no built structures remain. 7.2 No evidence of erosion classified as 'moderate' or 'severe' as defined by **Appendix 9: Erosion classification framework.** 7.3 Despite RM7.2 gullies are acceptable in the achievement of a stable landform provided they meet the following criteria as certified by an AQP: a) does not exceed 1 m in depth at any point b) has not exposed environmentally problematic materials c) the cause of the gully is known and has been resolved d) has established and persistent vegetation cover, and/ or rock armouring at the head of the gully e) is in a stabilised state, demonstrated by monitoring data over a 5-year period; and f) does not provide a safety hazard within the context of the PMLU. 7.4 No evidence of scouring, overtopping or destabilisation in or associated with permanent engineered drainage structures. 7.5 No evidence of saline, metalliferous or acid mine drainage evidenced by groundwater monitoring. **Woodland Habitat PMLU** 7.6 A BioCondition assessment completed by an AQP using current methodology prescribed in the latest version of the Queensland Herbarium's BioCondition

		Assessment Manual, demonstrating that the final landform for **RA2, RA3, RA6 (certain areas) & RA8** achieves the 'Revised PRCP benchmark' criteria in **PRCP schedule Appendix 6: Woodland habitat revegetation monitoring benchmarks**. **Woodland Habitat PMLU (certain areas within RA6 - Riparian)** 7.7 A BioCondition assessment completed by an AQP using current methodology prescribed in the latest version of Queensland Herbarium's BioCondition Assessment Manual (Eyre et al., 2015), demonstrating that the final landform for **RA6** achieves the 'Revised PRCP benchmark' criteria in **PRCP schedule Appendix 7: Woodland habitat riparian revegetation monitoring benchmarks.** **Light Grazing and Grassland PMLU (RA1, RA4, RA5, RA7, RA10 and RA9)** 7.8 >70% established and self-sustaining vegetative groundcover of species as listed in **PRCP schedule Appendix 3: Seed species list and application rate for light grazing and grassland revegetation**. 7.9 Pasture meets condition rating provided in **PRCP schedule Appendix 8: Pasture condition assessment** as follows**:** a) For existing rehab (RA1) ≤3 b) For proposed rehab (RA4, RA5, RA7 and RA10) ≤2 7.10 Subsidence monitoring does not show an exceedance of trigger levels stated in RM6.13 within 5 years of the cessation of Mavis underground mining activities. 7.11 No surface cracking or ponding or impacts to drainage attributed to mining activities which does not impact achieving the PMLU.

		Retained infrastructure/ Water storage (RA4) 7.12 Infrastructure to be transitioned to a future landholder is deemed fit for purpose, safe and stable by AQP and accepted, by signed agreement with the future landholder. 7.13 The retained dam (Western dam) is safe, accessible to animals and stock and have vegetated banks. 7.14 Water storages monitored for water quality annually must meet ANZECC 2000 stock water guideline values, for a minimum of 5 consecutive years prior to surrender.

5 Section E – Non-use management areas

5.1 (IA1) Improvement area 1

Non-use management area (NUMA)		
Improvement area	IA1	
Relevant activities	Residual voids Millennium pit (A, B) Mavis pit (M, D, E)	
Total size (ha)	281.0	
Commencement of first milestone: MM1	10-12-2025	
NUMA	Highwall, Low wall, End wall, Pit Lake and Inpit Tailings Storage	
Date area is available	10-12-2025	10-12-2035
Cumulative area available (ha)	281.0	281.0
Milestone completed by	10-12-2035	10-12-2045
Milestone Reference	**Cumulative area achieved (ha)**	
MM1	281.0	
MM2		281.0
MM3		281.0
MM4		281.0

5.2 Improvement area milestones

Milestone reference	Management milestone	Milestone criteria
MM1	Achievement of structural stability	1.1 Confirmation by a third party AQP that final voids are stable, including: a) That the highwall and end wall (where not backfilled) have: • overall slope angle 65° void highwall and end wall in competent (unweathered) rock; • overall slope angle 45° highwall and end wall in less competent (weathered) rock; and • Prevent the ingress of floodwater into void. b) The highwall and end wall demonstrates achievement of geotechnical stability by achieved factor of safety ≥1.5. 1.2 AQP confirms portal sealed off as per regulation 325 of the Queensland Coal Mining Safety and Health Regulations 2020 (CMSHR).
MM2	Installation of cover system (in-pit tailings)	2.1 An AQP certifies: a) Two metres of benign material placed as a cover system giving consideration to the consolidation of tailings. b) Installed cover displays erosional and geotechnical stability. c) Installed cover is effective in mitigating the potential for interaction of contaminants from tailings storage areas with the surrounding environment, up until when the natural water level rise in D Pit North to create a water cap.
MM3	Achievement of surface requirements	3.1 Safety bund setback distance is in accordance with a calculated geotechnical FoS of ≥1.5 as determined by an AQP. 3.2 The safety bund is constructed in accordance with engineering requirements including: a) constructed from non-weathered dumped rockfill; b) a minimum 2 m in height; c) a minimum of 7 m base width; and d) 1 in 1.5 batters.

		3.3 Bunding constructed in accordance with the Department of Industry and Resources (1997) Guideline safety bund walls around abandoned open pit mines or as recommended by AQP and confirmed to be geotechnically stable by an AQP. 3.4 Fencing installed at nominated offset from safety bund to restrict public access to highwall or end wall areas. 3.5 Appropriate signage placed at suitable intervals around the perimeter of the void to clearly identify and convey the purpose.
MM4	Achievement of sufficient improvement	4.1 Confirmation by a third party AQP, that final voids are stable (including): a) the high wall and end wall (where not backfilled) have: i. 65^0 overall void high wall in competent (unweathered) rock. ii. 45^0 overall high wall in less competent (weathered) rock. iii. Lowwall spoil at angle of repose. b) voids retain minimum 0.1% AEP flood immunity from inundation or overtopping, supported by flood modelling re-run prior to completion of MM4 and calibrated against the final landform; c) geotechnically stable; d) evidence that any erosion at the high-wall and low-wall does not cause instability or degradation to the land beyond IA1; e) drainage measures and structures have been appropriately established and are directing overland flow away from the highwall edge; f) erosion and sediment control measures have been installed and are operating as per design; g) surface water managed along the pit crests to ensure that surface erosion is minimised and evidence that ground cover between the void crests and bunds is >60%; and h) the safety bund and fencing are present and functional continuing to keep the residual voids safe to humans and livestock. 4.2 The groundwater monitoring conducted as per **PRCP condition 10** and the residual void water level monitoring results within the five-years immediately prior to surrender are supported by groundwater modelling that demonstrates: a) the voids do not and will not cause environmental harm to receiving environment; and b) are on trajectory to act collectively as a groundwater sink in the long term.

END OF PRCP SCHEDULE

6 Section F – Appendix

List of Appendices

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Appendix 9: Erosion classification framework.

Appendix 10: Surface water monitoring locations.

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Appendix 11: Surface water quality limits .

Appendix 12: Groundwater monitoring locations.

Appendix 12.1: Groundwater monitoring locations.

Appendix 13: Groundwater quality limits.

Appendix 1: Location of Scour Protection for PMF Event.

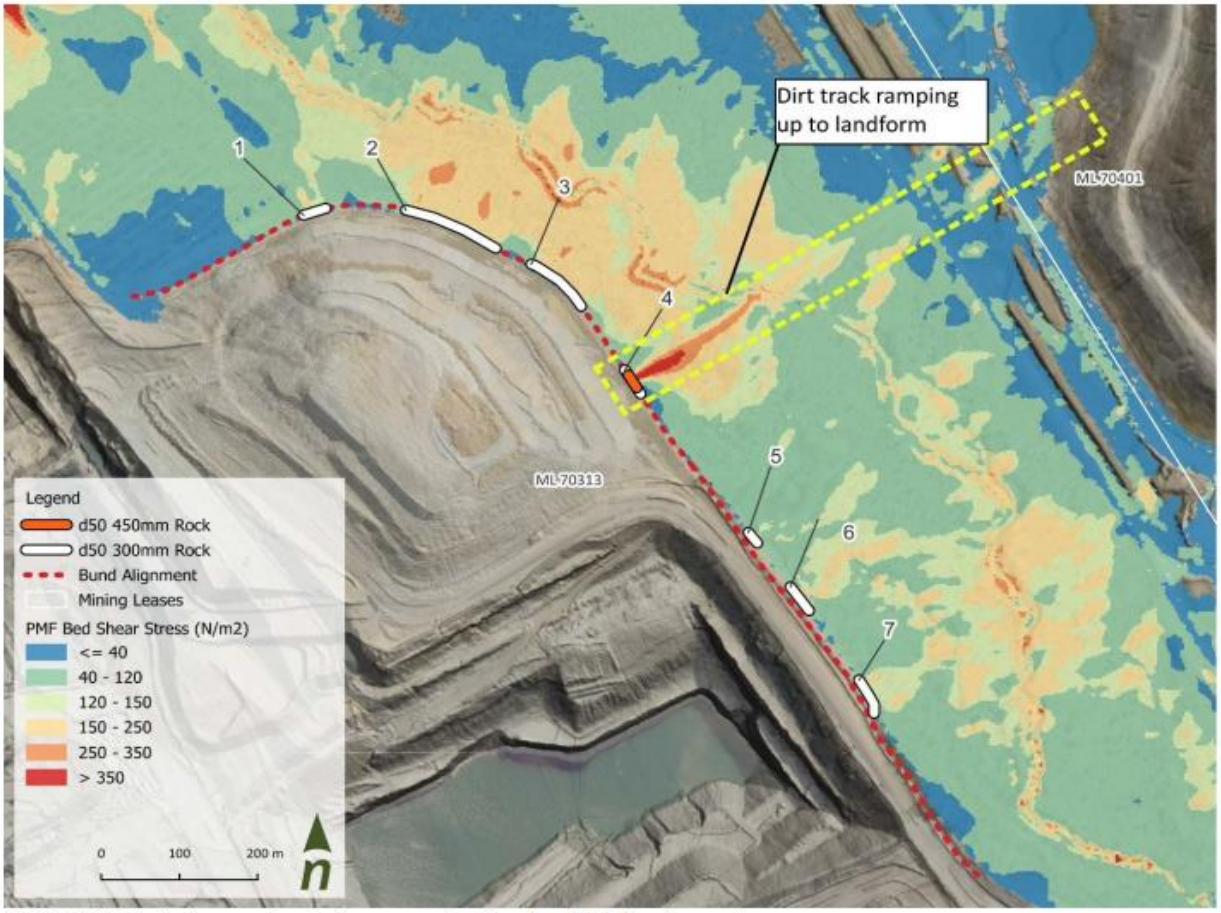


Figure 16. *Preliminary extent of scour protection for PMF flood event*

Table 12. Preliminary arrangement of scour protection for PMF event

Location	Length of 300 d50 (mm)	Length of 450 d50 (mm)
1	30	-
2	130	-
3	90	-
4	40	20
5	20	-
6	40	-
7	50	-

Appendix 2: PMF Event High Velocity Areas.

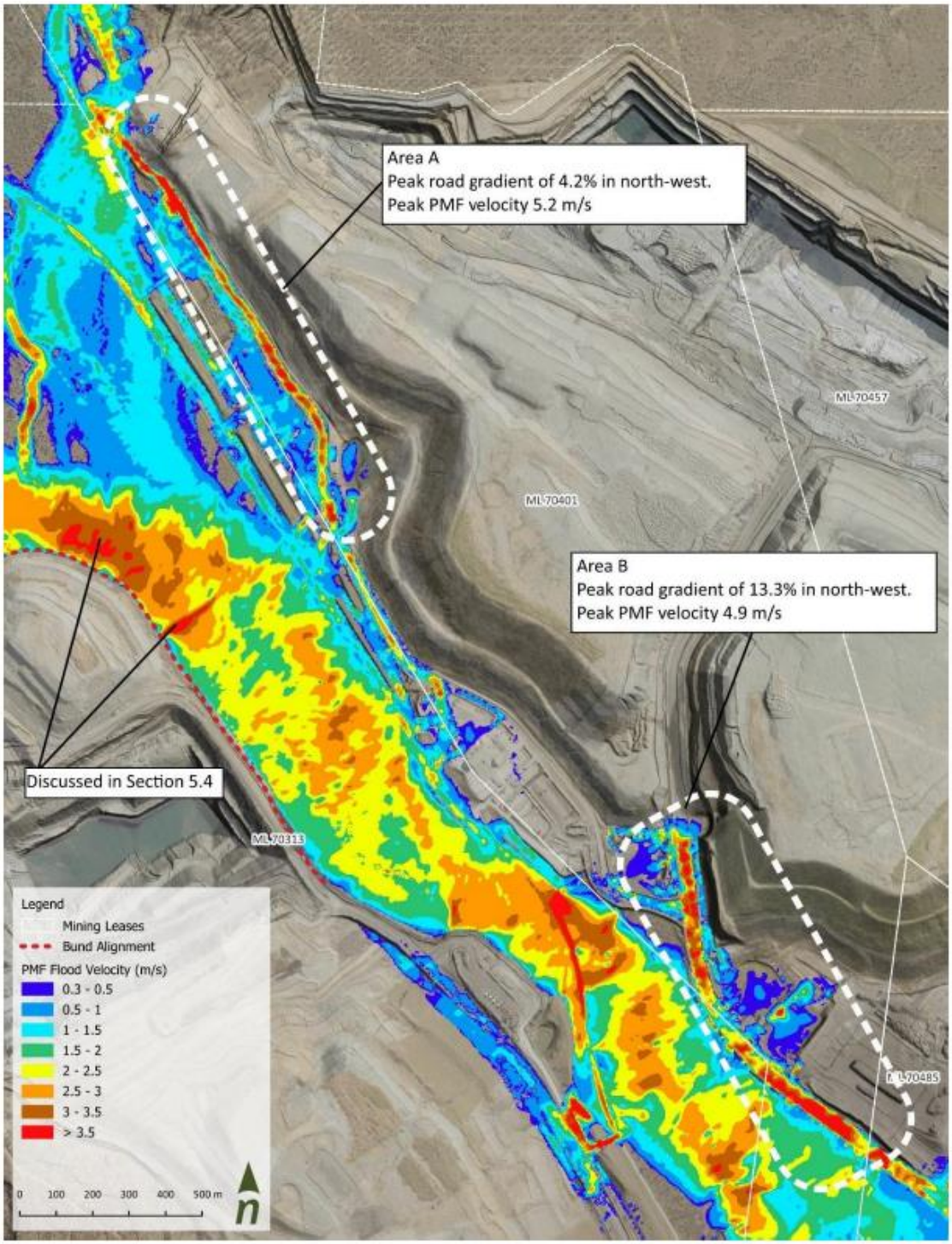


Figure 6-29 PMF Event – High Velocity Areas

Appendix 3: Seed Species List and Application Rate for Light Grazing and Grassland Revegetation (RA4, RA5, RA7, RA10 &RA9).

Scientific Name	Common Name	Application Rate
Native Grasses		
Astrebla lappacea	Curly mitchell grass	2-3 species from the list with a bulked seed weight of 3 kg/ha
Dichanthium sericeum	Queensland bluegrass	
Heteropogon contortus	Black speargrass	
Panicum decompositum	Native Millet	
Improved Pasture		
Chloris gayana	Katambora rhodes	2-3 species from the list with a bulked seed weight of 3 kg/ha
Chloris gayana	Reclaimer rhodes	
Clitoria Ternatea	Butterfly Pea	
Bothriochloa insculpta	Bisset Creeping Bluegrass	
Stylosonthes scabra	Stylo/ Seca Stylo	

Appendix 4: Recommended species to be established for Woodland Habitat Riparian Revegetation (RE11.3.4) (Riparian RA6 location per Appendix 4.1).

Scientific Name	Common Name	Application Rate
Native Trees (T) and Shrubs (S)		
Eucalyptus tereticornis (T)	Queensland blue gum	Between 6-10 species from the list with bulk seed at 3 kg/ha (assuming some chaff and impurities in seed lots). Use 1.5 kg/ha if using pure seed for Trees. And
Corymbia tessellaris (T)	Moreton Bay ash	
Angophora subvelutina (T)	broad-leaved apple	
Corymbia clarksoniana (T)	grey bloodwood	
Lophostemon suaveolens (T)	swamp box	
Angophora floribunda (T)	rough-barked apple	
Eucalyptus melanophloia (T)	silver-leaf ironbark	
Eucalyptus populnea (T)	poplar box	
Alstonia constricta (S)	bitterbark	
Blakella citriodora (T)	lemon-scented gum	
Corymbia intermedia (T)	pink bloodwood	
Eucalyptus camaldulensis (T)	river red gum	
Eucalyptus longirostrata (T)	grey gum	
Planchonella cotinifolia (S)	coondoo	
Acacia salicina (S)	Sally wattle	
Erythrina vespertilio	bat-wing coral tree	
Acacia glaucoparpa (S)	hickory wattle	
Acacia disparrima subsp. *Disparrima (S)*	brown salwood	Between 8-12 species from the list with bulk seed at 8 kg/ha, subject to availability of seed stock for shrubs.
Alphitonia excelsa (S)	soap tree	
Acacia crassa subsp. *Longicoma (S)*	curracabah	
Acacia falcata (S)	sickle wattle	
Acacia leiocalyx subsp. *Leiocalyx (S)*	black wattle	
Acacia maidenii (S)	maiden's wattle	
Breynia oblongifolia (S)	coffee bush	
Bursaria spinosa subsp. *Spinosa (S)*	Christmas bush	
Capparis lasiantha	nipan	
Carissa ovata (S)	currantbush	
Cassia brewsteri (S)	Brewster's Cassia	
Citrus glauca (S)	desert lemon	
Denhamia cunninghamii (S)	yellow berry bush	
Grewia latifolia (S)	dysentery plant	
Hibiscus divaricatus (S)	native Hibiscus	
Mallotus philippensis (S)	red kamala	
Pittosporum angustifolium (S)	butterbush	

Native Grasses		
Themeda triandra	kangaroo grass	3-6 species from the list with a bulked seed weight of 3 kg/ha.
Dichanthium sericeum	Queensland bluegrass	
Capillipedium spicigerum	scented top	
Chloris divaricata		
Cymbopogon refractus	barbed-wire grass	
Panicum simile	two-colour panic	
Sporobolus creber	slender rat's tail grass	
Eragrostis leptostachya	paddock love grass	
Eragrostis sororia	woodland love grass	
Imperata cylindrica	blady grass	
Panicum effusum	hairy panic	
Native Forbs and Other		
Eustrephus latifolius	wombat berry	3-6 species from the list with a bulked seed weight of 3 kg/ha.
Sida hackettiana	Queensland hemp	
Cyperus gracilis	slender flat sedge	
Cyperus fulvus	sticky sedge	
Fimbristylis dichotoma	common fringe-rush	
Scleria brownii		
Cyanthillium cinereum	vernonia	
Glycine tomentella	woolly glycine	
Desmodium varians	slender tick trefoil	
Euphorbia dallachyana	caustic-weed	
Oxalis perennans	sorrel	
Wahlenbergia gracilis	sprawling bluebell	
Abutilon oxycarpum	flannel weed	
Brunoniella australis	blue trumpet	
Einadia hastata	ruby saltbush	
Eremophila debilis	winter apple	
Glycine clandestina	twining glycine	
Goodenia glabra	smooth goodenia	
Lobelia purpurascens	white root	
Lomandra multiflora	many-flowered matrush	
Phyllanthus virgatus		

Appendix 4.1: PMLU Woodland Habitat Remnant Locations (RA6).

Description	Latitude (GDA94)	Longitude (GDA94)
Water Storage – West Creek	22° 02′ 13″S 22° 01′ 46″ S 22° 01′ 44″ S 22° 02′ 10″ S	148° 13′ 38″ E 148° 13′ 38″ E 148° 13′ 29″ E 148° 13′ 18″ E
Haul Road Crossings	22° 01′ 36″ S	148° 15′ 51″ E
Reload Facility (including access track)	22° 00′ 30″ S 22° 00′ 24″ S 22° 00′ 26″ S 22° 00′ 26″ S 22° 00′ 27″ S 22° 00′ 28″ S 22° 00′ 29″ S 22° 00′ 31″ S 22° 00′ 30″ S 22° 00′ 30″ S 22° 00′ 29″ S 22° 00′ 29″ S 22° 00′ 30″ S 22° 00′ 31″ S 22° 00′ 31″ S	148° 13′ 02″ E 148° 13′ 19″ E 148° 13′ 17″ E 148° 13′ 13″ E 148° 13′ 12″ E 148° 13′ 12″ E 148° 13′ 11″ E 148° 13′ 06″ E 148° 13′ 06″ E 148° 13′ 07″ E 148° 13′ 06″ E 148° 13′ 05″ E 148° 13′ 03″ E 148° 13′ 07″ E 148° 13′ 08″ E

Appendix 5: Recommended species to be established for Woodland Habitat Revegetation (RE11.10.1) RA2, RA3, RA6 (Certain parts which are not associated to riparian PMLU) **& RA8** (For RA8 limited to disturbed area only).

Scientific Name	Common Name	Application Rate
Native Trees and Shrubs		
Blakella citriodora (T)	lemon-scented gum	Between 6-10 species from the list with bulk seed at 3 kg/ha (assuming some chaff and impurities in seed lots). Use 1.5 kg/ha if using pure seed for Trees. And
Eucalyptus crebra (T)	narrow-leaved ironbark	
Angophora leiocarpa (T)	rusty gum	
Eucalyptus fibrosa subsp. *Nubilis (T)*	blue-leaved ironbark	
Eucalyptus longirostrata (T)	grey gum	
Eucalyptus melanophloia (T)	silver-leaf ironbark	
Eucalyptus cloeziana (T)	Gympie messmate	
Corymbia clarksoniana (T)	grey bloodwood	
Callitris glaucophylla (T)	white cypress pine	
Blakella (corymbia) watsoniana (T)	large-fruited yellowjacket	
Lysicarpus angustifolius (T)	budgeroo	
Acacia leiocalyx subsp. *leiocalyx*	black wattle	
Acacia shirleyi (S)	lancewood	
Allocasuarina torulosa (T)	forest oak	
Alphitonia excelsa (S)	soap tree	Between 8-12 species from the list with bulk seed at 8 kg/ha, subject to availability of seed stock for shrubs.
Petalostigma pubescens (S)	quinine tree	
Acacia longispicata (S)		
Acacia crassa (S)	curracabah	
Breynia oblongifolia (S)	coffee bush	
Capparis canescens (S)	wild pomegranite	
Acacia falciformis (S)	broad-leaved hickory	
Grewia latifolia (S)	dysentery plant	

Jacksonia scoparia (S)	dogwood	
Acacia bancroftiorum (S)		
Acacia caroleae (S)	narrow-leaved currawang wattle	
Allocasuarina luehmannii (T)	bull oak	
Cassinia laevis (S)	wild rosemary	
Erythroxylum australe (S)	cocaine tree	
Macrozamia moorei (T)	Moore's zamia palm	
Persoonia falcata (S)	geebung	
Native Grasses		
Cleistochloa subjuncea		3-6 species from the list with a bulked seed weight of 3 kg/ha.
Aristida spp.	three-awns	
Eremochloa bimaculata	poverty grass	
Arundinella nepalensis	reedgrass	
Themeda triandra	kangaroo grass	
Panicum effusum	hairy panic	
Cymbopogon refractus	barbed-wire grass	
Entolasia stricta	wiry panic	
Aristida caput-medusae	many-headed wiregrass	
Eragrostis elongata	clustered love grass	
Heteropogon contortus	black speargrass	
Native Forbs and Other		
Fimbristylis dichotoma	common fringe-rush	3-6 species from the list with a bulked seed weight of 3 kg/ha.
Scleria sphacelata	trefoil rattlepod	
Cyanthillium cinereum	vernonia	
Brunoniella australis	blue trumpet	
Lomandra multiflora	many-flowered matrush	

Phyllanthus virgatus		
Dianella longifolia	flax-lily	
Acacia leiocalyx subsp. *Leiocalyx*	black wattle	
Goodenia delicata		
Chrysocephalum apiculatum	yellow buttons	
Dianella revoluta	black-anther flax lily	
Rostellularia adscendens	pink tongues	
Desmodium rhytidophyllum	hairy trefoil	
Laxmannia gracilis	slender wire lily	
Evolvulus alsinoides	tropical speedwell	
Lomandra filiformis	fine-leaved matrush	
Cheilanthes sieberi	mulga fern	
Desmodium brachypodum	large ticktrefoil	
Lomandra confertifolia	clumped matrush	
Lomandra longifolia	spiny-headed mat-rush	

Appendix 6: Woodland Habitat Revegetation Monitoring Benchmarks RA2, RA3, RA6 & RA8 (For RA8 limited to disturbed area only).

Attribute	RE 11.10.1 Benchmark	RE 11.10.1 Adapted Benchmark	RE 11.10.1 Revised Adapted Benchmark (for RA2)
Short description	Corymbia citriodora woodland on coarse-grained sedimentary rocks	Corymbia citriodora woodland on coarse-grained sedimentary rocks	Corymbia citriodora woodland on coarse-grained sedimentary rocks
Recruitment	100 %	100 %	100 %
Non-native plant cover	0 %	<10 %	<10 %
Tree species richness	4	3	2
Shrub species richness	4	3	2
Grass species richness	9	4	3
Forb and other species richness	17	5	5
Canopy height	24 m	12 m	12 m
Canopy cover (crown cover)	30 %	15 %	5%
Shrub canopy cover (crown cover)	13 %	5 %	5 %
Native perennial grass cover	16 %	10%	10%
Organic litter	50 %	20%	20%

Appendix 7: Woodland habitat riparian revegetation monitoring benchmarks (certain areas within RA6).

Attribute	RE 11.3.4 Benchmark	RE 11.3.4 Adapted Benchmark
Short description	*Eucalyptus tereticornis* and/or *Eucalyptus* spp. woodland on alluvial plains	*Eucalyptus tereticornis* and/or *Eucalyptus* spp. woodland on alluvial plains
Recruitment	100 %	100 %
Non-native plant cover	0 %	<10 %
Tree species richness	4	3
Shrub species richness	3	3
Grass species richness	11	4
Forb and other species richness	17	5
Canopy height	24 m	12 m
Canopy cover (crown cover)	30 %	15 %
Shrub canopy cover (crown cover)	3 %	-
Native perennial grass cover	55 %	20%
Organic litter	37 %	10%

Appendix 8: Pasture condition assessment.

Condition Rating	Condition Indicators				
	Preferred Pasture Species		Annual Grass % DM Yield	Undesirable Grasses and Other Weeds % DM Yield	Preferred Pasture Species Diversity
	% DM Yield	Crown Cover			
1	>80%	Dense and plants healthy	<20%	<20%	>5 species
2	60 – 80%	High to moderate density and some plants unhealthy	20 – 40%	20 – 30%	3 – 5 species
3	10 – 60%	Moderate to low density and some plants dead	40 – 70%	30 – 80%	2 – 3 species
4	<10%	Sparse and many plants dead	>70%	>80%	0 or 1 species

Source: Pasture Condition Assessment Table as per “Stocktake: Balancing Supply and Demand” (Developed by FutureBeef – futurebeef.com.au)

Appendix 9: Erosion classification framework.

Erosion classification	Minor	Moderate	Severe
Sheet erosion	Shallow soil deposits downslope	Partial exposure of roots; moderate soil deposits downslope, etc.	Loss of surface horizon; root exposure; moderate substantial soil deposits downslope
Rill erosion (≤0.3m deep)	<15 rills pre transect* or Occasional rills	15-30 rills per transect* or Common rills	>30 rills per transect* or Numerous rills forming corrugated ground surface.
Gully erosion (>0.3m deep)	Gullies are isolated, linear, discontinuous, and restricted to primary or minor drainage lines	Gullies are linear, continuous, and restricted to primary or minor drainage lines	Gullies are continuous or discontinuous, and either tend to branch away from primary drainage lines and on to foot slopes, or have multiple branches within drainage lines

Source: NCST (2024) Australian Soil and Land Survey Field Handbook, 4th edition. The National Committee on Soil and Terrain. CSIRO Publishing, Collingwood, Australia.

**Transect linear 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)

Appendix 10: Surface water monitoring locations.

Monitoring Points	Receiving Waters Location Description	Latitude (GDA 2020)	Longitude (GDA 2020)
Upstream Background Monitoring Points			
MP1	New Chum Creek 3713 metres upstream of RP2	22° 00' 15.95" S	148° 13' 35.03" E
Downstream Monitoring Points			
MP2	New Chum Creek 2539 metres downstream of RP2	22° 02' 2.95" S	148° 16' 35.03" E
MP3	Downstream of A Pit	22°02'11.76" S	148°13'24.45" E
MP4	Downstream of Mavis Mine	22°00'23.14" S	148°16'21.75" E

Appendix 10.1: Surface water monitoring locations.

Appendix 11: Surface water quality limits.

Quality Characteristics	Units	Limit	Source
pH		6.5-8.5	WQO
Electrical Conductivity	µS/cm	720	WQO
Turbidity	NTU	217	Site-specific
Sulphate	mg/L	25	WQO
Aluminium - dissolved	µg/L	360	Site-specific
Antimony - dissolved	µg/L	9	ANZG 2018
Arsenic – dissolved	µg/L	13	ANZG 2018
Boron – dissolved	µg/L	940	ANZG 2018
Cadmium - dissolved	µg/L	0.2	ANZG 2018
Chromium - dissolved	µg/L	1	ANZG 2018
Cobalt - dissolved	µg/L	1	ANZG 2018
Copper - dissolved	µg/L	2	Site-specific
Iron - dissolved	µg/L	300	ANZG 2018
Manganese - dissolved	µg/L	1900	ANZG 2018
Mercury - dissolved	µg/L	0.06	ANZG 2018
Molybdenum - dissolved	µg/L	16	Site-specific
Nickel - dissolved	µg/L	11	ANZG 2018
Selenium - dissolved	µg/L	5	ANZG 2018
Silver - dissolved	µg/L	1.0*	For aquatic ecosystem protection, based on LOR for ICPMS
Uranium - dissolved	µg/L	1.3	Site-specific
Vanadium - dissolved	µg/L	6	ANZG 2018
Zinc - dissolved	µg/L	8	ANZG 2018
Ammonia	µg/L	150	Site-specific
Nitrate	µg/L	150	Site-specific
Petroleum hydrocarbons (C6-C9)	µg/L	20	
Petroleum hydrocarbons (C10-C36)	µg/L	100	
Major ions Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	mg/L	For interpretation purposes	
Hardness	mg/L	For interpretation purposes	

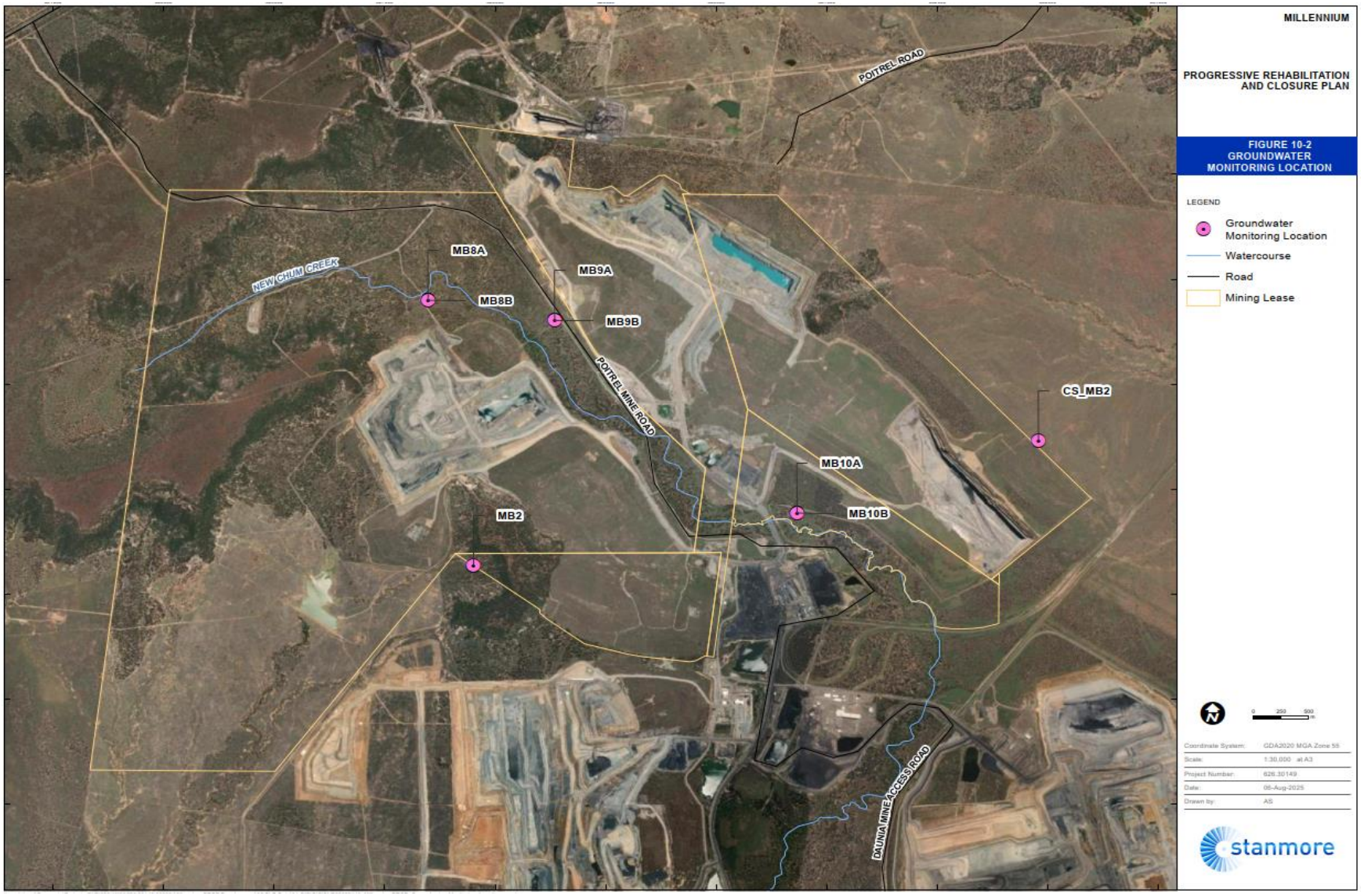
Notes:

- *All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).*
- **Limit of Reporting (LOR) is the lowest concentration of an analyte that a laboratory can reliably report for a given sample and method. ICPMS/CV FIMS/GCMS– analytical method required to achieve LOR.*
- *Limits for metals and metalloids apply to dissolved results.*
- *ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection).*
- *WQO. Upper Isaac River catchment waters. Environmental Protection (Water) Policy 2009 Isaac River Sub-basin Environmental Values and Water Quality Objectives Basin No. 130 (part), including all waters of the Isaac River Sub-basin (including Connors River) September 2011.*

Appendix 12: Groundwater monitoring locations.

Monitoring Site ID	Hydrogeological unit	Latitude (GDA2020)	Longitude (GDA2020)	Ground elevation (mAHD)	Depth (mbgl)	Screens (mbgl)	Monitoring Frequency	Monitoring Parameters
MB2	Rangal Coal Measures (Sandstone)	22° 01' 49.95" S	148° 14' 18.03" E	262.4	90	72 - 90	Quarterly	SWL
MB8A	Rewan Group	22° 00' 27.95" S	148° 14' 3.03" E	259.1	30	22 - 28	Quarterly	SWL and Quality
MB8B	Rangal Coal Measures (Sandstone)	22° 00' 27.95" S	148° 14' 3.03" E	259.1	80	62 - 74	Quarterly	SWL and Quality
MB9A	Fort Cooper Coal Measures (Coal)	22° 00' 33.95" S	148° 14' 43.03" E	251.8	30	22 - 30	Quarterly	SWL and Quality
MB9B	Fort Cooper Coal Measures (Sandstone)	22° 00' 33.95" S	148° 14' 43.03" E	251.8	80	60 - 74	Quarterly	SWL and Quality
MB10A	Fort Cooper Coal Measures (Sandstone)	22° 01' 32.95" S	148° 16' 0.03" E	233.9	35	27 - 35	Quarterly	SWL and Quality
MB10B	Fort Cooper Coal Measures (Sandstone)	22° 01' 32.95" S	148° 16' 0.03" E	233.9	80	64 - 76	Quarterly	SWL and Quality
CS_MB2	Rangal Coal Measures (Coal)	22° 01' 9.95" S	148° 17' 16.03" E	236.4	170	161-164	Quarterly	SWL

Appendix 12.1: Groundwater monitoring locations.



Appendix 13: Groundwater quality limits.

QUALITY CHARACTERISTIC	Unit	MB8A	MB8B	MB9A	MB9B	MB10A	MB10B
		Rewan Group	Rangal Coal Measures (Coal)	Fort Cooper Coal Measures (Coal)			
Field pH		6.5-8.5					
Field EC	µS/cm	8,910[C]	24,300	20,500	13,650	3,862	10,833
Sulfate	mg/L	318 [C]	480	110	80	84	173
Nitrate	mg/L	5.3 [C]					
Aluminium (Al) – Dissolved	µg/L	55[B]					
Antimony (Sb) – Dissolved	µg/L	9[B]	9[B]	50	9[B]	9[B]	9[B]
Arsenic (As) – Dissolved	µg/L	13	13	2	3	8	13
Boron - Dissolved	µg/L	940 [B]					
Cadmium - Dissolved	µg/L	0.2 [B]					
Chromium - Dissolved	µg/L	1 [B]					
Cobalt - Dissolved	µg/L	1 [B]					
Copper (Cu) – Dissolved	µg/L	1.4 [B]					
Mercury (Hg) - Dissolved	µg/L	0. 6[B]					
Molybdenum (Mo) - Dissolved	µg/L	34	34	6	10	5	2
Nickel - Dissolved	µg/L	11 [B]					
Selenium (Se) - Dissolved	µg/L	11[B]					
Vanadium - Dissolved	µg/L	6 [B]					
Zinc (Zn) - Dissolved	µg/L	45					
Iron (Fe) - Dissolved	µg/L	140 [C]	5,250	140 [C]	1,980	450	1073
Petroleum Hydrocarbons C6 – C9	µg/L	20					
Petroleum Hydrocarbons C10 – C36	µg/L	100					
Major Ions Calcium, Chloride, Potassium, Magnesium, Sodium, Bicarbonate, Carbonate (Ca, Na, Mg, K, HCO_3, CO_3, SO4, CL)	mg/L	Interpretation					
Water Level	mAHD	Interpretation					

Notes:

- *No note – values are derived from site-specific data.*
- *B - ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection).*
- *C Upper Isaac River catchment waters. Environmental Protection (Water) Policy 2009 Isaac River Sub-basin Environmental Values and Water Quality Objectives Basin No. 130 (part), including all waters of the Isaac River Sub-basin (including Connors River) September 2011. Fitzroy Water Plan WQ1310, Zone 34 Shallow 80th percentile.*

END OF **PRCP** SCHEDULE