PRCP schedule

Environmental Protection Act 1994

PRCP schedule PRCP_EPML00657913_V1

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: PRCP_EPML00657913_V1

PRCP schedule holder(s)

Name(s)	Registered address
Constellation Mining Pty Ltd – ABN 133 357 310	Level 15, 40 Creek Street BRISBANE QLD 4000

Location details

Location(s)
Mining Lease (ML) 80173

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.

Alison O'Brien	3/05/2023
Signature	Date

Alison O'Brien
Department of Environment and Science
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 - Final site design and reference maps
- Section C - Post mining land uses

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

There are no conditions beyond those contained in section 206A of the *Environmental Protection Act 1994* that apply to this PRCP schedule.

General conditions

PRCP1 The holder must comply with each milestone criteria stated in the schedule.

PRCP2 Where a milestone criterion requires any of the following, the holder must keep records of the actions taken to comply with the criterion as well as the results and provide a copy of this information to the Administering Authority on request –

(i) Certifications or assessments to be undertaken;

(ii) Monitoring or maintenance to be carried out;

(iii) Final design plans and/or specifications to be developed; and

(iv) Reports such as contaminated land investigations, rehabilitation reports (including monitoring records), validation reports, Quality Assurance/Quality Control reports.

PRCP3 Progressive rehabilitation must be carried out in accordance with the milestones and criteria in this schedule. Where completion of the first milestone for a "**cumulative area available**[1]" for a rehabilitation area occurs earlier than in the schedule, each subsequent milestone for that **cumulative area available** is brought forward by the same amount of time as the first milestone has been brought forward.

PRCP4 Prior to the **commencement of mining activities**[2], the holder must propose suitable reference sites that will be used to determine compliance with relevant milestone criteria (i.e. criteria which are assessed by comparing against reference sites). Proposed reference sites must be provided to the administering authority for endorsement via a report which must at a minimum include the following:

1) The location of the selected reference sites;
2) Demonstration that the number of reference sites nominated is adequate (i.e. can provide statistically valid results);
3) The methodology used in determining the suitability of the proposed reference sites; and
4) Justification for the suitability of each nominated reference site.

The administering authority may provide comment in relation to the nominated reference sites and due regard must be had to the administering authority's comments.

PRCP5 Impacts to land as a result of subsidence must be managed in accordance with the Subsidence Management Plan as required under the current version of the environmental authority EPML00657913.

PRCP6 Surface water runoff from all Rehabilitation Areas (RA) entering the receiving environment must not result in impacts to surface water values and must comply with the water quality limits of **Table 1 – Water Quality Limits.**

Table 1 – Water Quality Limits

Quality characteristic (unit)	Water Quality Limit
pH (range)	6.5 – 9.0
EC (µS/cm)	1,000
Total Suspended solids (mg/L)	310
Sulfate (mg/L)	250

[1]*Cumulative Area Available* refers specifically to the total area in a cell in the row titled “cumulative area available (ha)”, and not the entire rehabilitation area (RA).

[2]*Commencement of mining activities* means construction of mine infrastructure, excavation of drifts for underground mine access, or commencement of dewatering operations.

END OF CONDITIONS

Section B - Final site design and reference maps

Figure 1 – Final Site Design

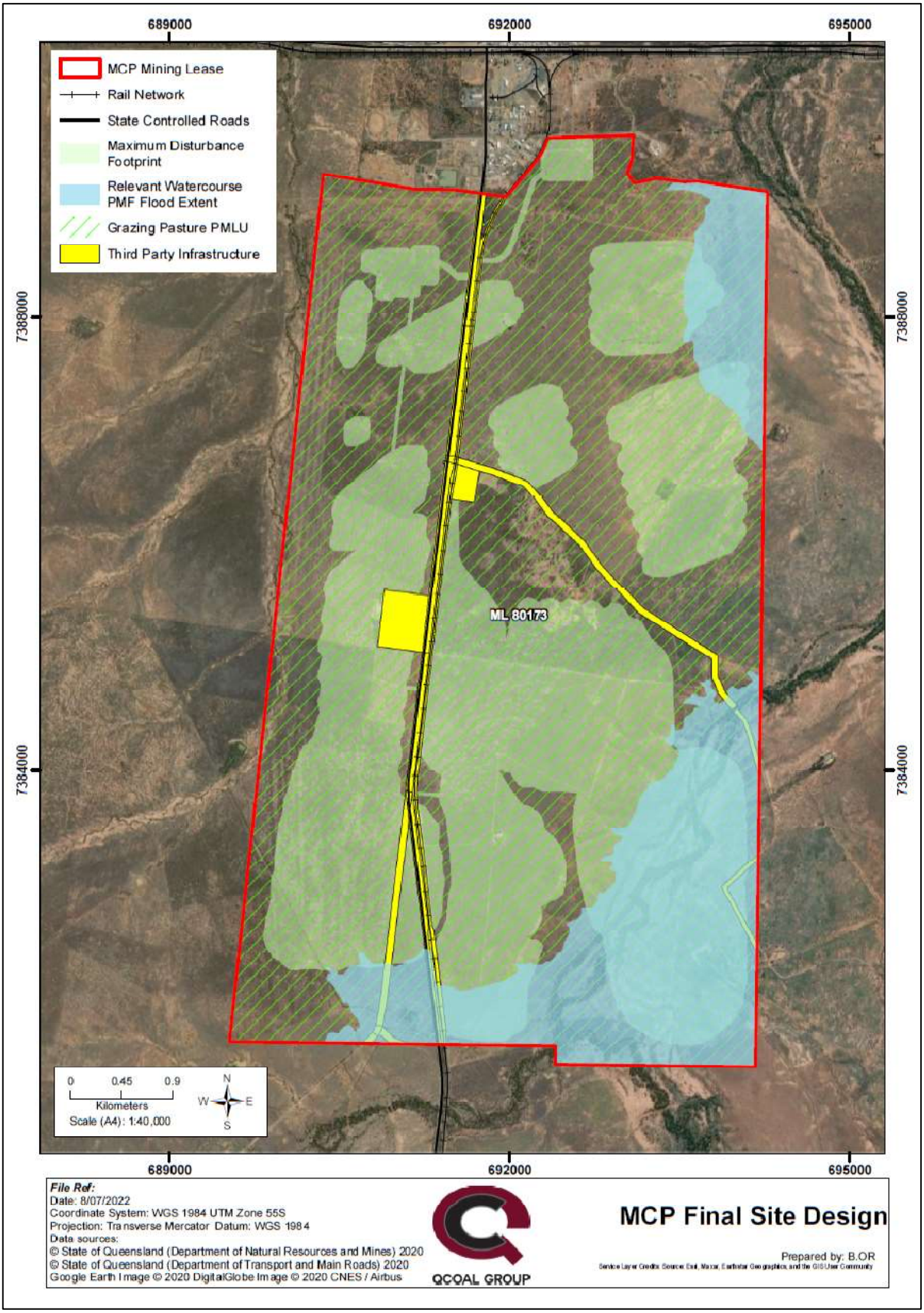


Figure 2 – Reference Map RA1, RA2, RA3, RA6

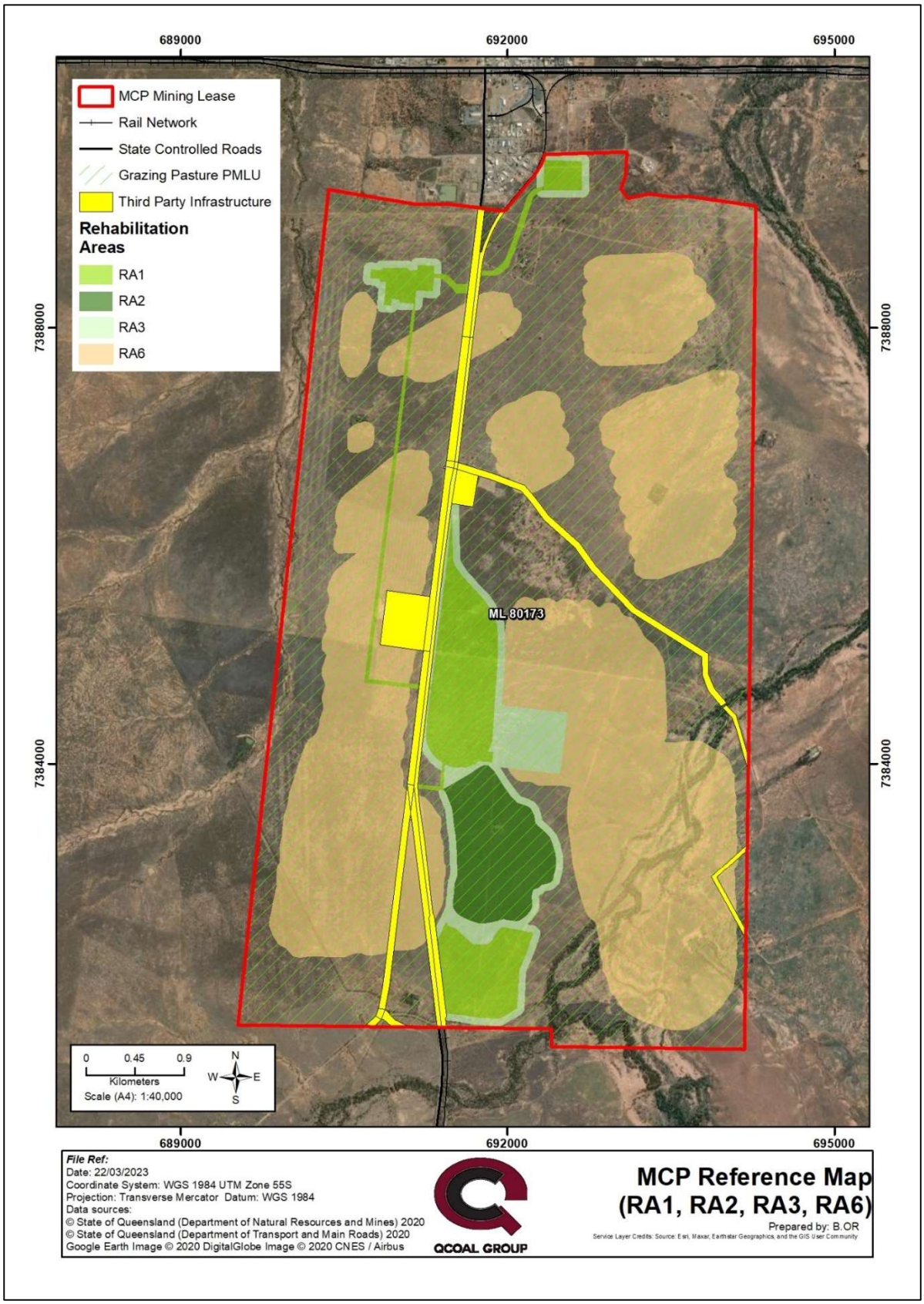


Figure 3 – Reference Map RA5

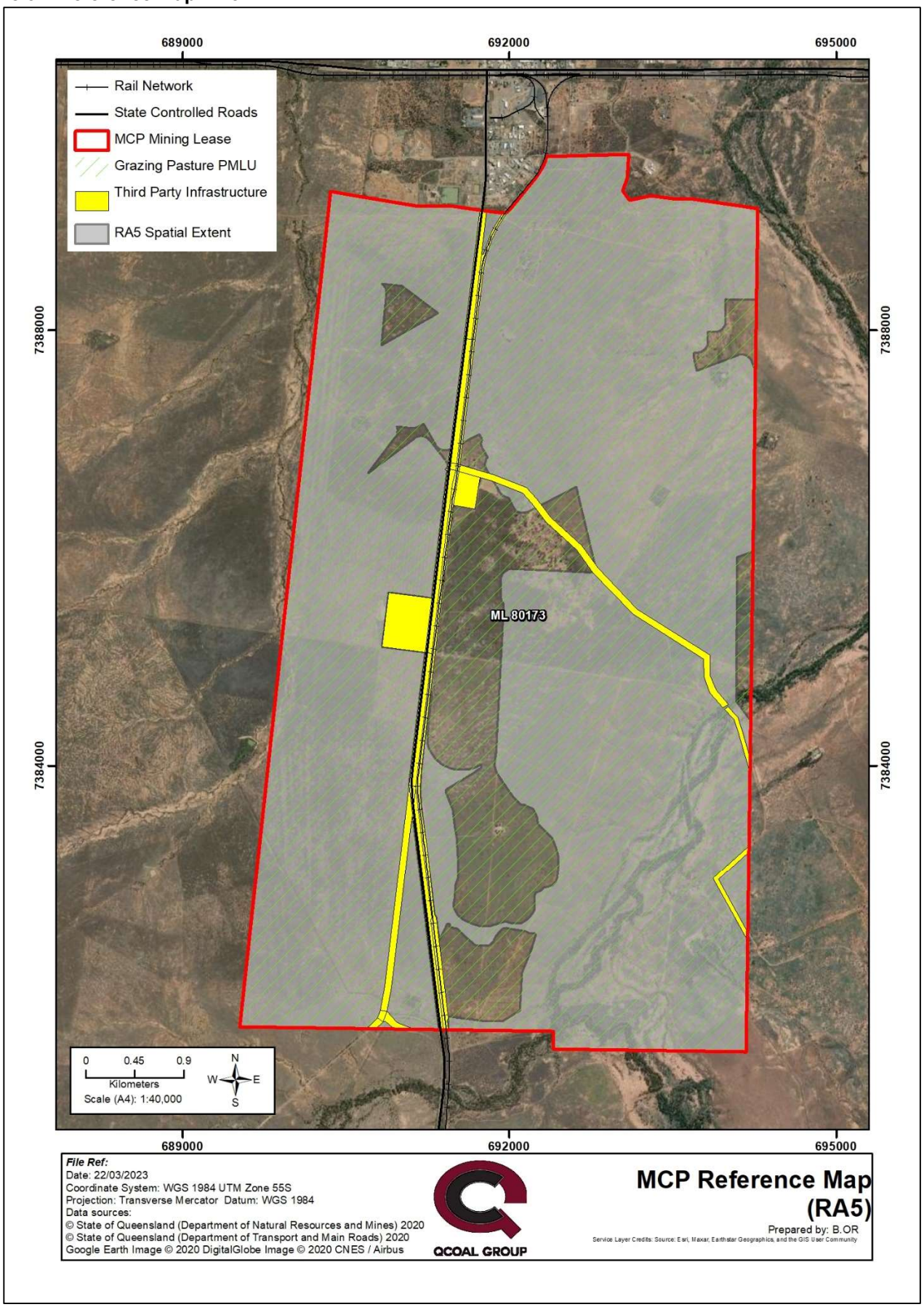
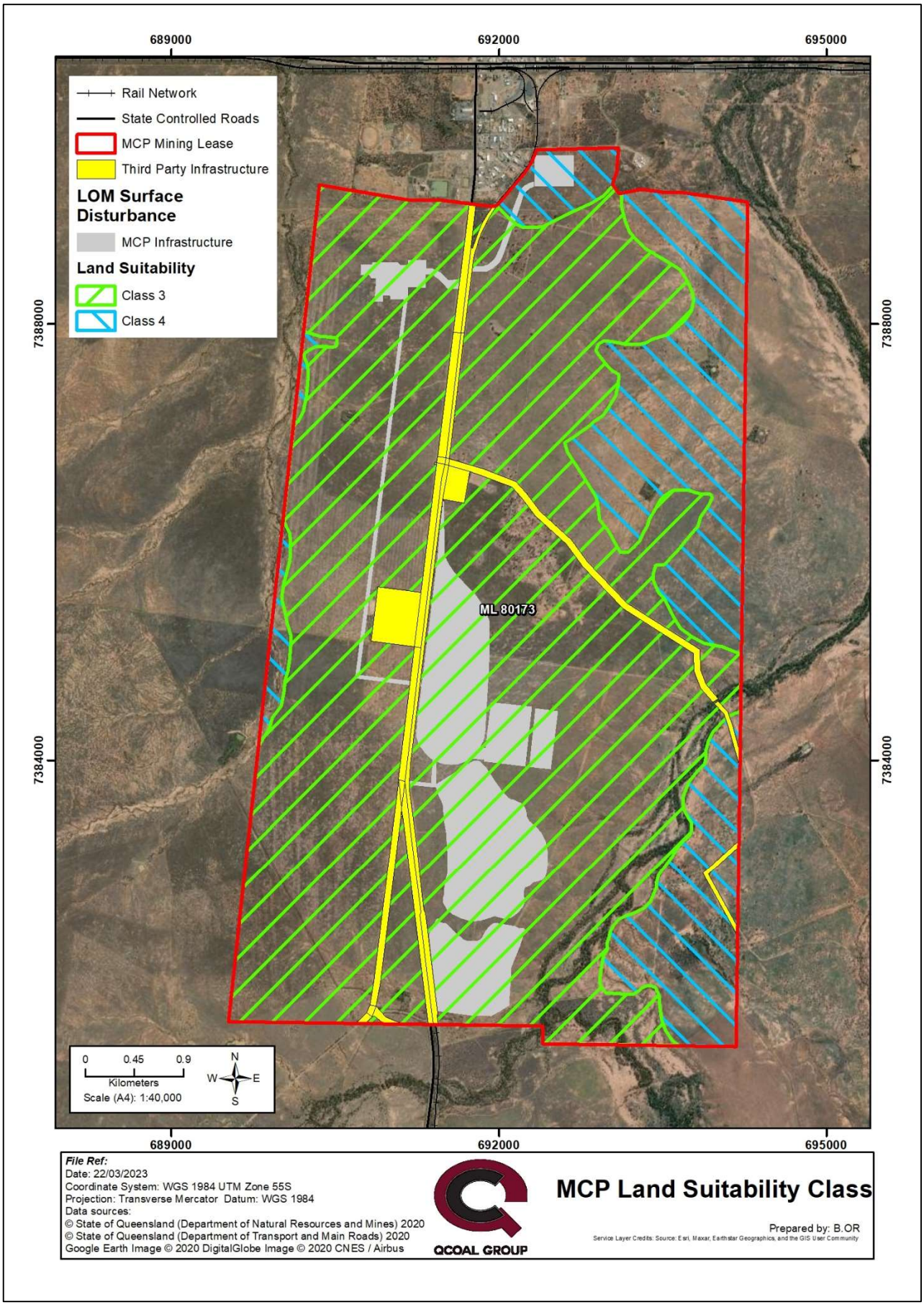


Figure 4– Class 3 and Class 4 Land Suitability Post-Mining Location



Section C – Post mining land uses

(RA1) Rehabilitation area 1

Post-mining land uses (PMLU)										
Rehabilitation area	RA1									
Relevant activities	Built Infrastructure									
Total rehabilitation area size (ha)	205.0									
Commencement of first milestone: RM1	10/12/2054									
PMLU	Grazing Pasture									
Date area is available	10/12/54	10/12/55	10/12/57							
Cumulative area available (ha)	185.0	185.0	205.0							
Milestone completed by	10/12/55	10/12/57	10/12/59	10/12/61						
Milestone Reference	**Cumulative area achieved (ha)**									
RM1	185.0		205.0							
RM2	185.0		205.0							
RM4		185.0	205.0							
RM6		185.0	205.0							
RM9		185.0	205.0							
RM10			185.0	205.0						
RM12			185.0	205.0						

(RA2) Rehabilitation area 2

Post-mining land uses (PMLU)										
Rehabilitation area	RA2									
Relevant activities	Codisposal Area (CDA)									
Total rehabilitation area size (ha)	104.0									
Commencement of first milestone: RM1	10/12/2037									
PMLU	Grazing Pasture									
Date area is available	10/12/37	10/12/40	10/12/42	10/12/45	10/12/47	10/12/54				
Cumulative area available (ha)	14.4	14.4	40.0	40.0	40.0	104.0				
Milestone completed by	10/12/40	10/12/42	10/12/45	10/12/47	10/12/49	10/12/57	10/12/59	10/12/61		
Milestone Reference	**Cumulative area achieved (ha)**									
RM1	14.4		40.0			104.0				
RM4	14.4		40.0			104.0				
RM5	14.4		40.0			104.0				
RM6	14.4		40.0			104.0				
RM9	14.4		40.0			104.0				
RM10		14.4		40.0			104.0			
RM12			14.4		40.0			104.0		

(RA3) Rehabilitation area 3

Post-mining land uses (PMLU)										
Rehabilitation area	RA3									
Relevant activities	At-Grade Disturbance									
Total rehabilitation area size (ha)	102.2									
Commencement of first milestone: RM7	11/12/2057									
PMLU	Grazing Pasture									
Date area is available	11/12/57									
Cumulative area available (ha)	102.2									
Milestone completed by	10/12/58	10/12/61	10/12/63							
Milestone Reference	**Cumulative area achieved (ha)**									
RM7	102.2									
RM11		102.2								
RM13			102.2							

(RA4) Rehabilitation area 4

Post-mining land uses (PMLU)										
Rehabilitation area	RA4									
Relevant activities	Exploration Activities									
Total rehabilitation area size (ha)	50.0									
Commencement of first milestone: RM1	10/12/2023									
PMLU	Grazing Pasture									
Date area is available	10/12/23	11/12/33	11/12/43							
Cumulative area available (ha)	20.0	40.0	50.0							
Milestone completed by	10/12/33	11/12/43	10/12/53	10/12/55						
Milestone Reference	**Cumulative area achieved (ha)**									
RM1	20.0	40.0	50.0							
RM3	20.0	40.0	50.0							
RM7	20.0	40.0	50.0							
RM11	20.0	40.0	50.0							
RM13		20.0	40.0	50.0						

(RA5) Rehabilitation area 5

Post-mining land uses (PMLU)										
Rehabilitation area	RA5									
Relevant activities	Underground Mining Surface Facilities									
Total rehabilitation area size (ha)	140.2									
Commencement of first milestone: RM1	10/12/2054									
PMLU	Grazing Pasture									
Date area is available	10/12/54	11/12/55	11/12/56	10/12/59						
Cumulative area available (ha)	140.2	140.2	140.2	140.2						
Milestone completed by	10/12/55	11/12/56	10/12/59	10/12/61						
Milestone Reference	**Cumulative area achieved (ha)**									
RM1	140.2									
RM2	140.2									
RM3		140.2								
RM7		140.2								
RM11			140.2							
RM13				140.2						

(RA6) Rehabilitation area 6

Post-mining land uses (PMLU)									
Rehabilitation area	RA6								
Relevant activities	Longwall Mining Subsidence Areas								
Total rehabilitation area size (ha)	1424.1 (Full extent of longwall subsidence area)								
Commencement of first milestone: RM8	11/12/2038								
PMLU	Grazing Pasture								
Date area is available	11/12/38	10/12/39	8/12/40	7/12/42	5/12/43	3/12/44	2/12/45	1/12/47	
Cumulative area available (ha)	157.00	209.3	387.3	387.3	936.5	960.6	1244.6	1424.1	
Milestone completed by	10/12/39	10/12/40	10/12/42	10/12/43	10/12/44	10/12/45	10/12/47	10/12/48	10/12/52
Milestone Reference	**Cumulative area achieved (ha)**								
RM8	157	209.3	387.3		936.5	960.6	1244.6	1424.1	
RM11			387.3				936.5	960.6	1424.1
RM13				157	387.3			936.5	1424.1

Rehabilitation area milestones

Milestone reference	Rehabilitation milestone	Milestone criteria
RM1	Built Infrastructure removal (RA1, RA2, RA4, RA5)	1.1 Removal of all built infrastructure* to finished surface level. 1.2 All services disconnected. *Built infrastructure includes all above-ground structures, as well as slabs and footings associated with the following (but not limited to): – Northern surface facilities include underground portals, workshops, stores, administration facilities, ablution blocks, sewage treatment plant, water treatment plant, water storage dams, and laydown pads/carpark sheeting; – Overland ROM conveyor; – Mine infrastructure area including CHPP, ROM and product stockpile areas; – Co-disposal catch dam; – Infrastructure relating to exploration activities; – Rail load-out; – Site access roads/tracks; – Coal seam gas drainage vertical boreholes and associated infrastructure; and – Construction camp.
RM2	Backfilling (RA1, RA5)	2.1 Drifts and shafts are backfilled/sealed to ground level in accordance with an SQP design. 2.2 Certification by a suitably qualified person (SQP) that the backfilling and sealing of drifts and shafts has been undertaken in accordance with the SQP design.
RM3	Decommissioning boreholes (RA4, RA5)	3.1 Exploration boreholes to be decommissioned in accordance with the *Eligibility criteria and standard conditions for exploration and mineral development projects - V2* (EHP, 2016). 3.2 Gas drainage and dewatering boreholes to be decommissioned in accordance with the *Code of Practice for the Construction and Abandonment of Petroleum Wells and Associated Bores in Qld*, (Qld Petroleum and Gas Inspectorate, 2019) including installation of a suitable cement plug.

RM4	Landform development, shaping and profiling (RA1, RA2)	4.1 Contaminated land assessment completed by a suitably qualified person where required, evidenced by site investigation and report. 4.2 Remediation and/or management of contaminated land completed where required, evidenced by site validation report and site suitability statement issued by the suitably qualified person. 4.3 All major earthworks completed with an 'as constructed' survey plan showing surveyed area contours, finished slope and conformance to designed landform and drainage for each sub-area. 4.4 Waste rock material used in construction is located a minimum of 300mm below shaped final landform surface. 4.5 Required maximum slopes achieved, confirmed by survey*: - ≤20% (11.5°) achieved on RA1 batters - ≤10% (5.7°) achieved on RA2 batters - ≤2% (1.15°) achieved on crest of RA2 *unless an alternate slope is recommended by an RPEQ. 4.6 Drainage works within rehabilitation areas completed, confirmed by survey.
RM5	Landform capping (RA2)	5.1 Placement of subsoil or another suitable capping material to shaped surface to a minimum 1 metre thickness, confirmed by survey.
RM6	Surface preparation (RA1, RA2)	6.1 Ripping of prepared surfaces where compaction has occurred; and 6.2 Topsoil is placed to a minimum depth of: - 250mm for RA1; and - 300mm for RA2
RM7	Surface Preparation (RA3, RA4, RA5)	7.1 Ripping of prepared surfaces where compaction has occurred; and 7.2 Graded topsoil is respread; or 7.3 In-situ topsoil is lightly graded and/or ripped, where required.
RM8	Stabilisation of subsidence surface impacts (RA6)	8.1 Surface tension cracks ≥50mm width are graded. 8.2 Areas of buckling ≥150mm vertical displacement are graded. 8.3 Subsidence ponding areas are graded/shaped to be free draining, with rock stabilisation installed where required.

<table>
<tr><td>RM9</td><td>Revegetation (RA1, RA2)</td><td>9.1 Seed sown using target species as defined in section 5.2.9.2 of the PRC Plan (Version 3) at a rate of 20kg/ha.</td></tr>
<tr><td>RM10</td><td>Achievement of surface requirements (grazing pasture) (RA1, RA2)</td><td>
10.1 Germination monitoring completed within 12 months of completion of RM9 determines that adequate vegetation has been established to indicate successful germination (minimum 30% groundcover of preferred and intermediate species*).
10.2 Assessment of the need for soil amelioration undertaken within 12 months of completion of RM9.
10.3 Where required by the assessment undertaken in RM10.2, application of soil ameliorants such as fertiliser, gypsum and/or organic matter at rates determined by an AQP[3].
10.4 Groundcover is ≥70% or ≥50% if rocks, logs or other features are present.
10.5 ≥70% of the productivity (carrying capacity measured as pasture biomass) of grazed reference sites.
10.6 Proportion of preferred and intermediate species* is >60% of vegetative groundcover.
10.7 A minimum of 3 preferred and intermediate* pasture grass species must be present.
10.8 Proportion of Category 3 restricted invasive plant species** is not >10% of total vegetative groundcover.
10.9 Rectification of active rill and gully erosion completed within 12 months of achieving RM10.3.
10.10 Soil testing (undertaken 5 yearly (or a lesser period if required) indicates the following parameters*** are met for the relevant land suitability class as shown on Figure 4– Class 3 and Class 4 Land Suitability Post-Mining Location:
<table>
<tr><th rowspan="2">Parameter</th><th colspan="2">Land Suitability Class</th></tr>
<tr><th>Class 3</th><th>Class 4</th></tr>
<tr><td>Plant Available Water Capacity (PAWC)</td><td>>75mm</td><td>>50 mm</td></tr>
<tr><td>Bicarbonate P (at 0-10cm depth)</td><td>≥5ppm</td><td>≥5ppm</td></tr>
<tr><td>Electrical Conductivity (1:5 dilution) (in the root zone at 60 cm depth)</td><td><0.9mS/cm</td><td><1.2 mS/cm</td></tr>
<tr><td>Soil pH as measured at any part of the root zone</td><td>>5.0 - <9.0</td><td>>4.0 - <10.0</td></tr>
<tr><td>Exchangeable Sodium Percentage (ESP %) (at 0-10 cm depth)</td><td><15%</td><td><30%</td></tr>
</table>
* Preferred and intermediate species are as defined in s5.2.9.1 of the PRC Plan.
** Defined by Biosecurity Act 2014
*** As per the Guideline for Land Suitability Assessment Techniques within the Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland (DME, 1995)
</td></tr>
</table>

RM11	Achievement of surface requirements (grazing pasture) (RA3, RA4, RA5, RA6)	11.1 Germination monitoring completed within 12 months of completion of RM7/8 determines that adequate vegetation has been established to indicate successful germination (minimum 30% groundcover of preferred and intermediate species*) 11.2 Assessment of the need for soil amelioration undertaken within 12 months of completion of RM7/8. 11.3 Where required by the assessment undertaken in RM11.2, application of soil ameliorants such as fertiliser, gypsum and/or organic matter at rates determined by an appropriately qualified person. 11.4 Groundcover** is ≥70% or ≥50% if rocks, logs or other features are present. 11.5 ≥70% of the productivity (carrying capacity measured as pasture biomass) of grazed reference sites. 11.6 Proportion of preferred and intermediate species* is >60% of vegetative groundcover. 11.7 A minimum of 3 preferred and intermediate* pasture grass species must be present. 11.8 Proportion of Category 3 restricted invasive plant species*** is not >10% of total vegetative groundcover. 11.9 Rectification of active rill and gully erosion caused by the mining activities completed within 12 months of achieving RM11.3. * Preferred and intermediate species are as defined in s5.2.9.1 of the PRC Plan. ** Where utilised for stabilisation in rehabilitation of ponding areas, drainage rock is considered to be part of the groundcover. *** Defined by *Biosecurity Act 2014*

<table>
<tr>
<td>RM12</td>
<td>Achievement of post-mining land use to stable condition (grazing pasture) (RA1, RA2)</td>
<td>
Each of the below listed criteria is certified as having been achieved by a person who is appropriately qualified to assess that criterion, with the combined certifications confirming that the rehabilitation achieves the PMLU and is stable (as defined in the EP Act):

12.1 Soil testing undertaken 5 yearly (or a lesser period if required) indicates the following parameters are met for the relevant land suitability class as shown on Figure 4– Class 3 and Class 4 Land Suitability Post-Mining Location:
<table>
<tr><th rowspan="2">Parameter</th><th colspan="2">Land Suitability Class</th></tr>
<tr><th>Class 3</th><th>Class 4</th></tr>
<tr><td>Plant Available Water Capacity (PAWC)</td><td>>75mm</td><td>>50 mm</td></tr>
<tr><td>Bicarbonate P (at 0-10cm depth)</td><td>≥5ppm</td><td>≥5ppm</td></tr>
<tr><td>Electrical Conductivity (1:5 dilution) (in the root zone at 60 cm depth)</td><td><0.9mS/cm</td><td><1.2 mS/cm</td></tr>
<tr><td>Soil pH as measured at any part of the root zone</td><td>>5.0 - <9.0</td><td>>4.0 - <10.0</td></tr>
<tr><td>Exchangeable Sodium Percentage (ESP %) (at 0-10 cm depth)</td><td><15%</td><td><30%</td></tr>
</table>
12.2 ≥70% of the productivity (carrying capacity measured as pasture biomass) of grazed reference sites.
12.3 Groundcover is ≥70% or ≥50% if rocks, logs or other features are present.
12.4 Proportion of preferred and intermediate species is >60% of vegetative groundcover.
12.5 A minimum of 3 preferred and intermediate* pasture grass species must be present.
12.6 Proportion of Category 3 restricted invasive plant species** is not >10% of total vegetative groundcover.
12.7 Conformance of the final landforms to the design criteria as follows***:
- ≥20% (11.5°) achieved on RA1 batters
- ≥10% (5.7°) achieved on RA2 batters
- ≥2% (1.15°) achieved on RA2 crest
12.8 Contaminated land survey confirms that no contamination causing the land to be unsuitable for the post-mining land use is present.
</td>
</tr>
</table>

		12.9 Groundwater monitoring undertaken through the operational life of the MCP and through the full period of rehabilitation establishment (as required by the MCP environmental authority (EA)), has indicated no potential impacts to any groundwater values resulting from the rehabilitated landforms. 12.10 Surface water and aquatic ecology monitoring undertaken through the operational life of the MCP and through the period of rehabilitation establishment (as required by the MCP EA), has indicated no potential impacts to any surface water values including aquatic ecology, resulting from the rehabilitated landforms. 12.11 Backfilled/capped drifts and shafts are geotechnically stable. 12.12 CDA capping is geotechnically stable. 12.13 No active erosion[4] is present. * Preferred and intermediate species are as defined in s5.2.9.1 of the PRC Plan. ** Defined by *Biosecurity Act 2014.* ***unless an alternate slope is recommended by an RPEQ.
RM13	Achievement of post-mining land use to stable condition (grazing pasture) (RA3, RA4, RA5, RA6)	Each of the below listed criteria is certified as having been achieved by a person who is appropriately qualified to assess that criterion, with the combined certifications confirming that the rehabilitation achieves the PMLU and is stable (as defined in the EP Act): 13.1 ≥70% of the productivity (carrying capacity measured as pasture biomass) of grazed reference sites. 13.2 Groundcover is ≥70% or ≥50% if rocks, logs or other features are present. 13.3 Proportion of preferred and intermediate species is >60% of vegetative groundcover. 13.4 A minimum of 3 preferred and intermediate* pasture grass species must be present. 13.5 Proportion of Category 3 restricted invasive plant species** is not >10% of total vegetative groundcover. 13.6 Contaminated land survey confirms that no contamination causing the land to be unsuitable for the post-mining land use is present. 13.7 Groundwater monitoring undertaken through the operational life of the MCP and through the full period of rehabilitation establishment (as required by the MCP environmental authority (EA)), has indicated no potential impacts to any groundwater values resulting from the rehabilitated landforms. 13.8 Surface water and aquatic ecology monitoring undertaken through the operational life of the MCP and through the period of rehabilitation establishment (as required by the MCP EA), has indicated no potential impacts to any surface water values including aquatic ecology, resulting from the rehabilitated landforms.

		13.9 No active erosion[4] is present. Assessment by an **AQP[3]** confirms for the underground mining surface areas: 13.10 Backfilled and sealed drifts and shafts are geotechnically stable and was undertaken in accordance with the SQP design. **(RA6)** Longwall Mining Subsidence Areas: 13.11 Drainage channels within the subsided depressions facilitates free drainage of ponded water. 13.12 Surface cracks do not exceed 50mm width and are not actively eroding. 13.13 Areas of buckling do not exceed 150mm vertical displacement and are not actively eroding. **(RA6)** Blackwater Creek Riparian Zone (50m Buffer): 13.14 Hydraulic characteristics of Blackwater Creek are similar to pre-mining hydraulic characteristics or trending towards similar pre-mining hydraulic characteristics. 13.15 An **AQP[3]** certifies that dominant species from RE11.3.25, 11.3.3 and 11.9.7 are regenerating where riparian vegetation has been cleared due to mining activities***. * Preferred and intermediate species are as defined in s5.2.9.1 of the PRC Plan. ** Defined by *Biosecurity Act 2014*. ***Excluding where clearing has occurred to install permanent drainage structures for erosion control.

[3]*Appropriately Qualified Person* **(AQP)** means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

[4]as defined in the *Australian Soil and Land Survey Field Handbook third edition*, or a more recent version.

END OF **PRCP** SCHEDULE