

PRCP schedule

Environmental Protection Act 1994

PRCP Schedule P-PRCP-101033191 – Colton Coal Mine

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

PRCP schedule: P-PRCP-101033191_v1

PRCP schedule holder(s)

Name(s)	Registered address
New Colton Pty Ltd	Suite 1 Level 7 100 Edward St Brisbane City, QLD 4000

Location details

Location(s)
Mining Lease (ML): ML50273, ML50274, ML50280.

Take 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

Ben Byrd

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

17 August 2026

Date

Enquiries:

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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 if the administering authority directs the holder, by written notice (a *PRCP schedule audit notice*), to commission an audit of the schedule.
- the holder must, within 4 months after the PRCP schedule audit notice is given, provide 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 D - Non-use management areas.

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** Prior to any significant disturbance occurring within mining lease (ML) 50274 or ML50280 or ML50273, the holder must nominate in writing to the administering authority a commencement date for the mining activities in the format of a calendar year.
- PRCP2** Significant disturbance must not commence earlier than the nominated calendar year under condition **PRCP1**.
- PRCP3** Once a calendar year is nominated under condition **PRCP1**, that nominated year is to be read in place of **XXXX** in the PRCP schedule.
- PRCP4** All mining disturbance authorised under Environmental Authority (EA) EPML00367613 must have an associated rehabilitation outcome provided in this PRCP Schedule.
- PRCP5** For each rehabilitation and improvement area, the holder must achieve the relevant 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.
- PRCP6** 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';
 - (b) describe in the notification why or why not it considers that it would be reasonable and appropriate to apply to the administering authority to amend this schedule; and
 - (c) unless otherwise agreed to by the administering authority in writing, apply to the administering authority within 60 days of the notification to amend this schedule in a way that maximises the progressive rehabilitation to a stable condition.
- Note:
- (1) 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.
 - (2) Assessment of land becoming available is undertaken on a nominally annual basis.
 - (3) Rehabilitation of land size must be practicable and economical.
 - (4) The dates by which milestones are to be completed is brought forward, to the extent it is reasonably practicable to do so, by the same amount of time as the commencement was brought forward.
- PRCP7** Where an area achieves a rehabilitation or management milestone, the holder must continue to achieve the milestone for the area until:
- (a) A progressive certification area has satisfied the provisions of section 318ZB(4) of the EP Act; or
 - (b) A surrender is approved for the area.

- PRCP8** The holder must maintain a risk register that identifies the risks to not achieving:
- (a) a stable condition for post-mining land uses (PMLU);
 - (b) sufficient improvement for non-use management areas (NUMA); and
 - (c) how the risks are being managed or minimised.
- PRCP9** The risk register required by **PRCP8** must be reviewed annually and include consideration of the outcomes of PRCP monitoring data.
- PRCP10** The holder must carry out monitoring in accordance with:
- (a) the monitoring and maintenance program described in the rehabilitation planning part;
 - (b) any requirement under this schedule; and
 - (c) as necessary to demonstrate achievement of each rehabilitation milestone or management milestone criteria.
- Note: Where there is any inconsistency between this schedule and the rehabilitation planning part, the schedule criteria prevail to the extent of the inconsistency.*
- PRCP11** The holder must make and keep up to date records on:
- (a) achievement and maintenance of 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 the 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 milestones or milestone criteria;
 - (h) landholder agreements; and
 - (i) details of community consultation in the community consultation register relating to rehabilitation and closure activities.
- PRCP12** Records made under **PRCP11** must be kept until the relevant environmental authority has been surrendered.
- PRCP13** Evidence and/or records made under **PRCP11** must be provided to the administering authority in the specified format within 10 business days of a written request.
- PRCP14** All AQP 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) contain sufficient detail to allow for independent peer review and substantiation.

- PRCP15** Disturbance due to exploration and minor ancillary activities not within a Rehabilitation Area or an Improvement Area in this Schedule must be rehabilitated in accordance with the provisions detailed in the latest version of the '*Eligibility criteria and standard conditions for exploration and mineral development projects*' (ESR/2016/1985) or its successor, with the exception that land must be rehabilitated to a stable condition which includes achieving the relevant PMLU for the disturbance location as detailed in **Figure 1 – Final Site Design**.

Groundwater

- PRCP16** By **13 July 2028**, the holder must provide a water balance model and an updated numerical groundwater model linked to the water balance model, providing increased detail of predicted post mining conditions in both the void (including predicted water levels and quality which consider surface water runoff) and predicted groundwater heads in the various layers.
- PRCP17** An up-to-date closure groundwater and water balance model (calibrated once data becomes available) must be maintained with predictions rerun at least every five years following the updates provide under **PRCP16** as well as within a year of any surrender application.
- The predictive groundwater modelling as per the Australian Groundwater Modelling Guidelines (current version), confirms:
- (a) the residual voids will not cause environmental harm through the release of contaminants from the void lakes beyond the tenure boundaries post-closure; and
 - (b) groundwater drawdown will not negatively impact groundwater dependent ecosystems (GDEs) on or surrounding the site.
- PRCP18** By **13 July 2028**, provide a revised Monitoring Bore Network and Monitoring Program (MBNMP) including some bores in the Elliot Formation¹
- ¹ as recommended in section 13 of Appendix F of the rehabilitation planning part.
- PRCP19** If as per **PRCP18** older existing bores are to be incorporated into MBNMP it must be demonstrated that they are operational and able to provide water level and or water quality data representative of the hydrostratigraphic unit they are monitoring.
- PRCP20** By **15 January 2029**, prepare a report that reviews **Appendix 10 – Groundwater monitoring bores locations** of this schedule to ensure bores identified in **Appendix 10** are operational and representative of groundwater conditions on site. This report must be submitted to the administering authority, upon request.
- PRCP21** If the review carried out as per **PRCP20**, shows that bores identified in **Appendix 10– Groundwater monitoring bores locations** of this schedule are not operational or representative of groundwater conditions on site, then EA holder must amend this schedule to update the **Appendix 10** with new bores that are operational and representative of groundwater conditions on site.

Landform design

- PRCP22** By **10 December XXXX + 3 years**, the holder must, for each relevant structure, provide to the administering authority an AQP prepared and peer reviewed landform closure design report. The landform closure design report must:
- (a) Include detailed engineering designs for closure landforms to be safe, erosionally and structurally stable, and appropriate for the PMLU or NUMA;
 - (b) have regard to the material properties and local conditions as it applies to a geotechnical and erosional stability risk;
 - (c) take consideration of the land evolution modelling required by condition **PRCP23**; and
 - (d) include performance criteria that demonstrate that the landform will support the achievement of a stable condition, as per the PMLU/NUMA.

PRCP23 A landform evolution modelling for all relevant structures must be completed and provided to the administering authority by **10 December XXXX + 3 years**. The modelling must:

- (a) be 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'; and
- (b) identify whether contour banks and engineered structures are required to achieve stable landform.

PRCP24 The currency of the landform closure design report required by condition **PRCP22** must be maintained, and the report updated as often as necessary, to ensure that the relevant structures will achieve a stable condition that can be sustained. Where the report has been updated, the certifications provided under **PRCP22** must also be provided in relation to the updates

Flooding

PRCP25 By **10 December XXXX + 3 years**, the EA holder must submit an RPEQ -prepared local flood risk and susceptibility report that:

- (a) describes potential risks and impacts under 0.1% AEP events, including quantifying potential impacts to the final rehabilitated landform and the receiving environment; and
- (b) confirms that any impacts to the final rehabilitated landform during or following 0.1% AEP events will:
 - (i) not prevent stable condition being achieved; and
 - (ii) not result in environmental harm to the receiving environment that is significantly different to impacts to the surrounding environment exposed to the flood.

PRCP26 If the flood susceptibility and impact assessment required by **PRCP25** or the landform evolution modelling required by **PRCP23** identifies risks to the ability of the landform to achieve a stable condition, the EA holder must by **10 December XXXX + 4 years**:

- (a) Submit a revised closure landform design report for any new or modified landforms to the administering authority.
- (b) Ensure the design plan is prepared and certified by a third party AQP in the appropriate discipline(s).
- (c) Demonstrate that the design ensures flood immunity to 0.1% AEP, with minimum stability criteria, crest elevation and freeboard requirements clearly defined.
- (d) Demonstrate that the design will be erosionally stable.

Revegetation

PRCP27 By **10 December XXXX + 7 years** the holder must submit to the administering authority a revegetation plan prepared and certified by an AQP. The plan must:

- (a) Assess the suitability of achieving RE12.5.4 for the rehabilitated landforms in accordance with **Appendix 5 – BioCondition Benchmark for modified Regional Ecosystem RE 12.5.4** and **Appendix 6 – BioCondition Benchmark for modified Regional Ecosystem RE 12.5.4 shrubland** or recommend an alternative regional ecosystem and provide a list of recommended species;
- (b) apply the appropriate BioCondition Benchmarks associated with the target REs identified, or derive these from reference sites following the methods in "*Method for the Establishment and Survey of Reference Sites for BioCondition*";
- (c) Provide revegetation methods for each domain area, including the general sequence of works during each rehabilitation campaign.

PRCP28 By **10 December XXXX + 7 years** the holder must submit to the administering authority an aquatic ecology report and revegetation plan for the final void waterbody with a PMLU of native fauna habitat (lacustrine wetland). The plan must:

- (a) Assess the suitability of the seeding list found in **Appendix 22 – Lacustrine wetland PMLU seed mix** and fish and crustacean species found in **Appendix 3 – Fish and macro-crustacean species potentially suitable for establishment in Lacustrine wetland area** or the establishment in the for the native fauna PMLU or recommend an alternative seeding list and aquatic species list.
- (b) Provide revegetation methods and species inclusion methods, including the general sequence of works involved in rehabilitation.
- (c) Be prepared by an AQP.

PRCP29 If the revegetation plan prepared as per **PRCP27** or the aquatic ecology report and revegetation plan as per **PRCP28** identifies different revegetation requirements to the ones included in the PRCP schedule, the holder must at the same time submit to the administering authority a PRCP amendment application covering the identified changes needed.

Surface Water and Groundwater Monitoring

PRCP30 As required by rehabilitation milestone **RM5.6**, and if safe to do so, surface water quality must be monitored monthly during measurable flow at, but not limited to, the locations specified in **Appendix 8 – Surface water monitoring locations**, for all quality characteristics listed in **Appendix 9 – Surface water quality limits**.

PRCP31 Surface water quality results, as monitored in accordance with condition **PRCP30** must not exceed the limits specified in **Appendix 9– Surface water quality limits** within the **5-year period** immediately prior to surrender, unless:

- (a) when the applicable upstream site result is compared to the downstream site result, the quality result measured at a downstream site is equal to or less than the quality result measured at the applicable upstream site; or
- (b) if on no more than three occasions within the 5 years prior to surrender, an independent AQP completes an assessment of the cause and risk of rehabilitation not achieving a stable condition within the schedule timeframe and provides the assessment to the administering authority within 3 months of receiving the relevant sampling results; and either:
 - (i) concludes there is a low risk to achieving a stable condition; or
 - (ii) concludes there is a risk greater than low to achieve a stable condition and changes or rectification actions to rehabilitation activities are determined and implemented within **6 months** of the receiving the relevant sampling results.

Note: This condition (b) does not apply if exceedances are more than three occasions in the 5-year period prior to surrender.

PRCP32 As required by rehabilitation milestone **RM5.6**, and if safe to do so, groundwater quality must be monitored quarterly at, but not limited to, compliance bores specified in **Appendix 10– Groundwater monitoring bores locations**, for all quality characteristics listed in **Appendix 11– Groundwater quality limits**.

PRCP33 Groundwater quality results as monitored according to condition **PRCP32** must not exceed the limits in **Appendix 11– Groundwater quality limits**, for **3 consecutive results** within the **5-year** period immediately prior to surrender.

END OF CONDITIONS

2 Section B – Definitions

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.
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.
BioCondition	refers to the <i>BioCondition Assessment Manual</i> (Eyre, T.J., Kelly, A.L., Neldner, V.J., Wilson, B.A., Ferguson, D.J., Laidlaw, M.J. and Franks, A.J. (2015)) and <i>BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. Version 2.2</i> (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.
Contaminated Land Auditor	A contaminated land auditor is responsible for auditing the work of the suitably qualified person (SQP) by evaluating and certifying site investigation and validation reports and drafting the site management plans that are submitted for a decision on a land contamination matter.
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 who is able to demonstrate a sufficient level of independence from the PRCP schedule holder, the site and any technical material generated that is the subject of the review, to satisfy a reasonable person that they have no conflict of interest 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, and is able to demonstrate a sufficient level of independence from the PRCP schedule holder, the site and any technical material generated that is the subject of the review to satisfy a reasonable person that they have no conflict of interest on the matter the subject of the review. 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. means vegetation occurring naturally within Regional Ecosystems XX and/or listed in the relevant Regional Ecosystem technical description.
Minor ancillary activities	this means a road, fence, underground service, low-impact telecommunications facility, electrical sub-station, transmission grid works and supply network works, storage depots, similar minor infrastructure and ancillary facilities for any of the above minor infrastructure.

PRCP schedule

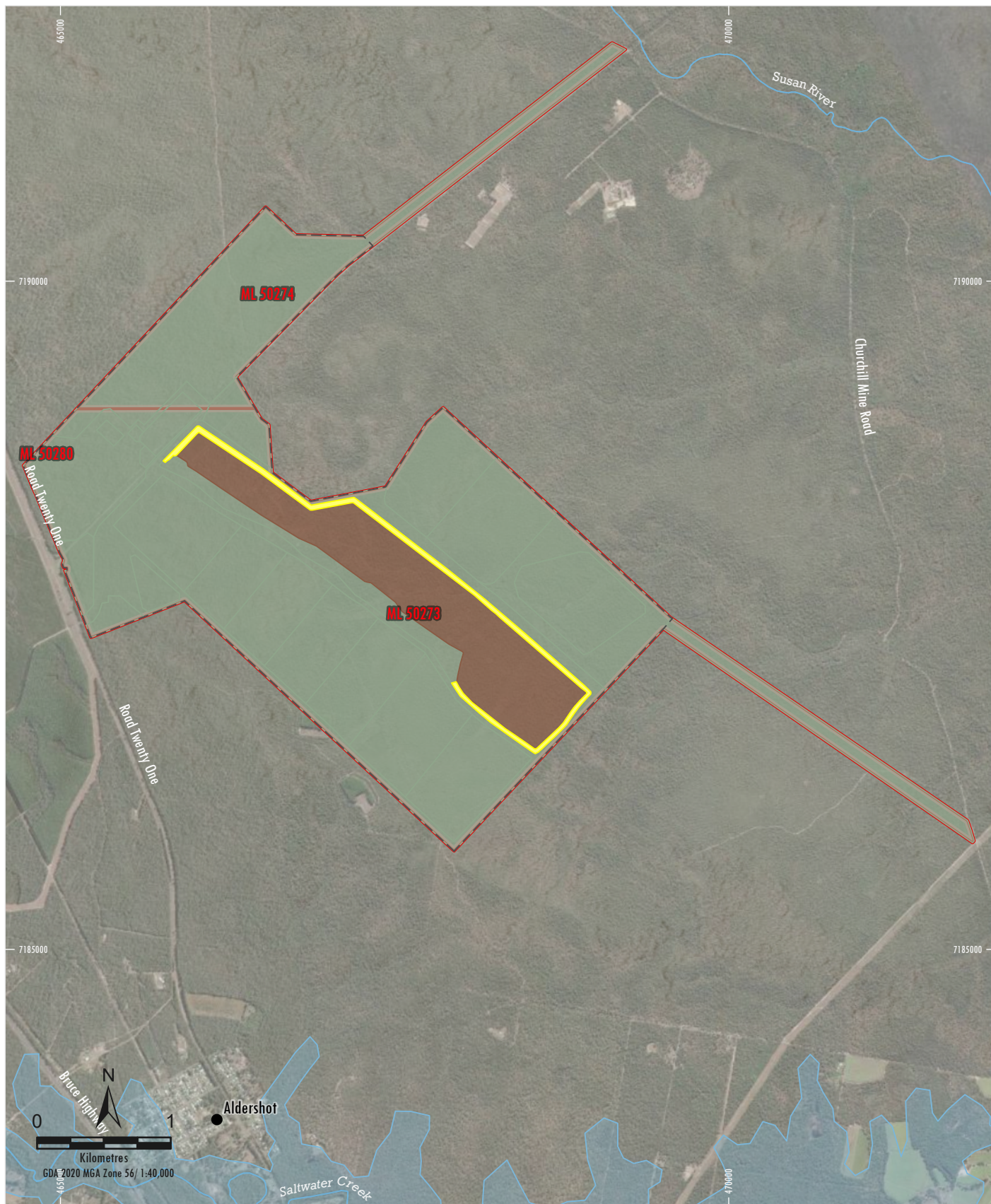
PRCP Schedule P-PRCP-101033191 – Colton Coal Mine

Native	means vegetation occurring naturally within Regional Ecosystems XX and/or listed in the relevant Regional Ecosystem technical description.
Potentially acid forming (PAF)	means material with either a Net Acid Producing Potential of greater than 5 kg of H ₂ SO ₄ /tonne or a Net Acid Generation oxidation pH of less than 4.5 (pH unit).
Registered Professional Engineer of Queensland (RPEQ)	Registration as a registered professional engineer of Queensland (RPEQ) demonstrates an engineer's qualification, competency and experience and ongoing commitment to development and learning
Rehabilitation activity	means any activity that the holder is required to carry out in relation to this PRCP schedule.
Relevant material	includes: • Final landform design report, • Durability assessment/ report, • "As Constructed" report; • All monitoring data • Assessment of monitoring data, • All maintenance records; and • Modelling and technical assessments.
Relevant structure	Spoil Dumps, Void area including (low-wall, waterbody, highwalls and end walls, ramps).
Rill	A rill is a channel excavated by water, less than 0.3 m deep.
Significant disturbance	mechanical disturbance of the land surface or clearing of vegetation but does not include access tracks for land management, fire breaks or disturbance associated with environmental monitoring or exploration
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 <i>Environmental Protection Act 1994</i> .
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.
Weed	• Category 3 restricted invasive plant species, defined by the <i>Biosecurity Act 2014</i>; 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.

3 Section C – Final site design and reference maps

Figure 1: Final Site Design

Figure 2: Reference Map



Legend

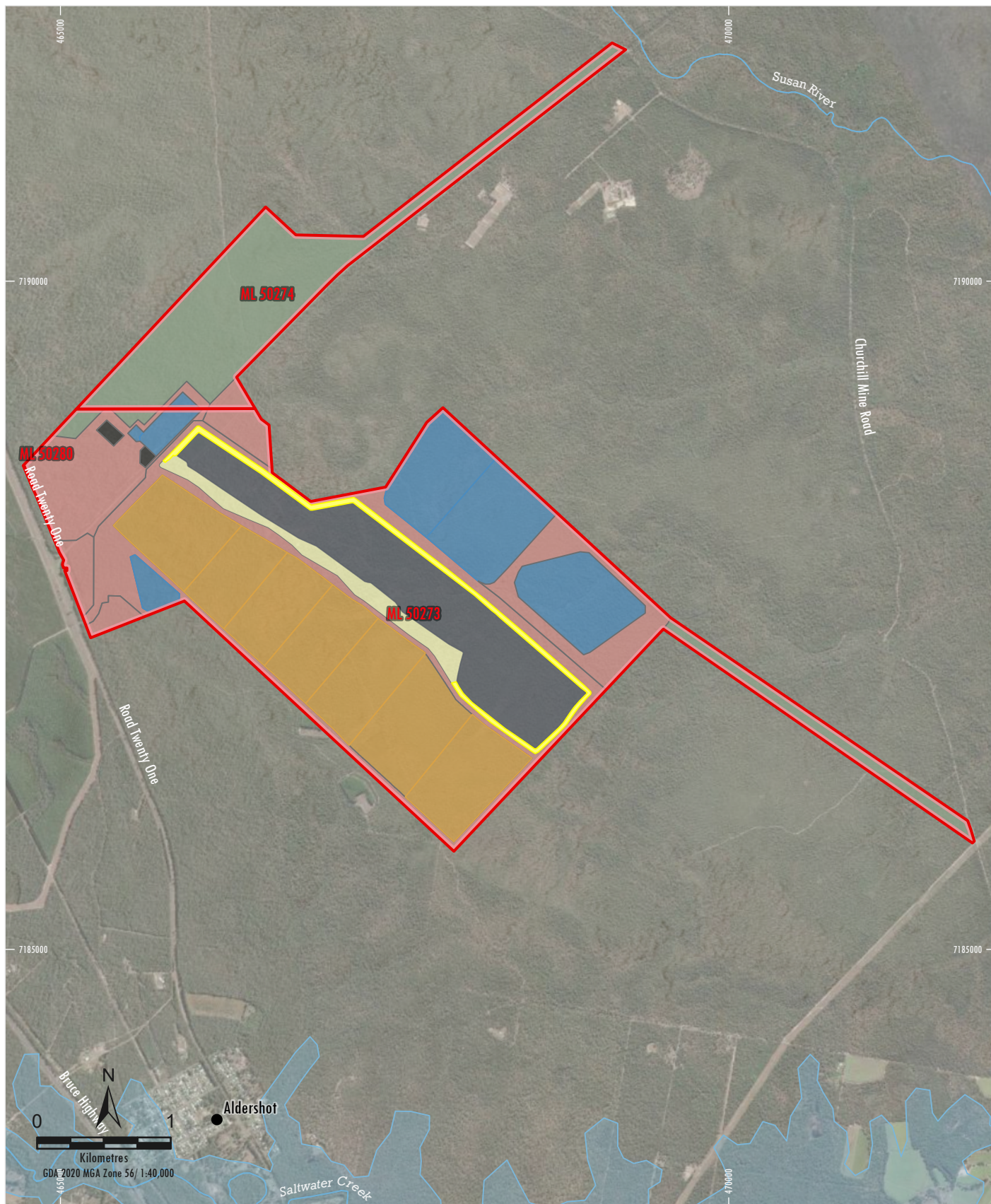
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|---|---|
| Mining Leases (New Colton) | Post Mining Land Use |
| Floodplain Assessment Overlay | Native Ecosystem |
| Maximum Disturbance (EA Area A) | Native Fauna Habitat |
| | Non-Use Management Area |

Colton Coal Mine

Final Site Design

Figure 1

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Legend

- Maximum Disturbance (EA Area A)
- Floodplain Assessment Overlay
- Mining Leases (New Colton)
- Improvement Areas
- IA1 - Void Highwall and End Walls

Rehabilitation Areas

- RA1 - Void Water Body
- RA2 - Regulated Water Storages
- RA3 - Infrastructure
- RA4 - Stockpiles
- RA5 - Waste Rock Disposal
- RA6 - Void Low Wall

- RA7 - Exploration Activities*
- Undisturbed

*Exploration activities will be undertaken anywhere on the resource tenure, as such specific locations (i.e. points or polygons) have not been identified on PRCP maps or spatial information as recommended in *Incorporating greenfield sites and exploration disturbance into progressive rehabilitation and closure plans* (DETSI 2024) (ESR/2024/6766).

Colton Coal Mine

Rehabilitation and Improvement Areas

Figure 2

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4 Section D – Post mining land uses

Milestone reference	Rehabilitation milestone	Rehabilitation Area					
		RA1	RA2	RA3	RA4	RA5	RA6
RM1	Infrastructure decommissioning and removal						
RM2	Identification, remediation and removal of contaminated land						
RM3	Landform development and reshaping						
RM4	Installation of a cover system						
RM5	Surface preparation						
RM6	Revegetation						
RM7	Achievement of surface requirement (native fauna habitat)						
RM8	Achievement of surface requirement (native ecosystem)						
RM9	Achievement of PMLU to a stable condition (native fauna habitat)						
RM10	Achievement of PMLU to a stable condition (native ecosystem)						

4.1 (RA1) Rehabilitation area 1

Post-mining land uses (PMLU)						
Rehabilitation area		RA1				
Relevant activities		Void Water Body				
Total rehabilitation area size (ha)		140.56				
Commencement of first milestone: RM1		10/12/XXXX ¹ + 16 years				
PMLU		Native Fauna Habitat				
Date area is available	10/12/XXXX + 16 years					
Cumulative area available (ha)	140.56					
Milestone completed by	10/12/XXXX + 17 years	10/12/XXXX + 19 years	10/12/XXXX + 20 years	10/12/XXXX + 21 years	10/12/XXXX + 36 years	10/12/XXXX + 41 years
Milestone Reference	Cumulative area achieved (ha)					
RM1	140.56					
RM2	140.56					
RM3		140.56				
RM5			140.56			
RM6				140.56		
RM7					140.56	
RM9						140.56

¹ XXXX is the year of commencement of the Project as per condition **PRCP3**.

4.2 (RA2) Rehabilitation area 2

Post-mining land uses (PMLU)						
Rehabilitation area		RA2				
Relevant activities		Regulated dams (CHPP dam, Return water dam, MIA dam, Worked water dam stage 1, Worked water dam stage 2, Mine water dam)				
Total rehabilitation area size (ha)		152.68				
Commencement of first milestone: RM1		10/12/XXXX ¹ + 20 years				
PMLU		Native ecosystem				
Date area is available	10/12/XXXX + 20 years					
Cumulative area available (ha)	152.68					
Milestone completed by	10/12/XXXX + 21 years	10/12/XXXX + 23 years	10/12/XXXX + 24 years	10/12/XXXX + 25 years	10/12/XXXX + 40 years	10/12/XXXX + 45 years
Milestone Reference	Cumulative area achieved (ha)					
RM1	152.68					
RM2	152.68					
RM3		152.68				
RM5			152.68			
RM6				152.68		
RM8					152.68	
RM10						152.68

4.3 (RA3) Rehabilitation area 3

Post-mining land uses (PMLU)						
Rehabilitation area		RA3				
Relevant activities		Infrastructure				
Total rehabilitation area size (ha)		227.68				
Commencement of first milestone: RM1		10/12/XXXX + 20 years				
PMLU		Native ecosystem				
Date area is available	10/12/XXXX + 20 years					
Cumulative area available (ha)	227.68					
Milestone completed by	10/12/XXXX + 21 years	10/12/XXXX + 23 years	10/12/XXXX + 24 years	10/12/XXXX + 25 years	10/12/XXXX + 40 years	10/12/XXXX + 45 years
Milestone Reference	Cumulative area achieved (ha)					
RM1	227.68					
RM2	227.68					
RM3		227.68				
RM5			227.68			
RM6				227.68		
RM8					227.68	
RM10						227.68

4.4 (RA4) Rehabilitation area 4

Post-mining land uses (PMLU)						
Rehabilitation area			RA4			
Relevant activities			Stockpiles (product coal stockpiles, ROM coal stockpile)			
Total rehabilitation area size (ha)			3.05			
Commencement of first milestone: RM1			10/12/XXXX + 15 years			
PMLU			Native ecosystem			
Date area is available	10/12/XXXX + 15 years					
Cumulative area available (ha)	3.05					
Milestone completed by	10/12/XXXX + 16 years	10/12/XXXX + 18 years	10/12/XXXX + 19 years	10/12/XXXX + 20 years	10/12/XXXX + 35 years	10/12/XXXX + 40 years
Milestone Reference	Cumulative area achieved (ha)					
RM1	3.05					
RM2	3.05					
RM3		3.05				
RM5			3.05			
RM6				3.05		
RM8					3.05	
RM10						3.05

4.5 (RA5) Rehabilitation area 5

Post-mining land uses (PMLU)																								
Rehabilitation area			RA5																					
Relevant activities			Waste Rock Disposal (spoil dumps)																					
Total rehabilitation area size (ha)			264.08																					
Commencement of first milestone: RM1			10/12/XXXX + 3 years																					
PMLU			Native Ecosystem																					
Date area is available	10/12/XXXX X + 3 years	10/12/XXXX X + 4 years	10/12/XXXX X + 5 years	10/12/XXXX X + 6 years	10/12/XXXX X + 7 years	10/12/XXXX X + 8 years	10/12/XXXX X + 9 years																	
Cumulative area available (ha)	41.69	69.6	101.5	135.8	174.1	221.05	264.08																	
Milestone completed by	10/12/XXXX + 4 years	10/12/XXXX + 5 years	10/12/XXXX + 6 years	10/12/XXXX + 7 years	10/12/XXXX + 8 years	10/12/XXXX + 9 years	10/12/XXXX + 10 years	10/12/XXXX + 11 years	10/12/XXXX + 12 years	10/12/XXXX + 13 years	10/12/XXXX + 14 years	10/12/XXXX + 15 years	10/12/XXXX + 24 years	10/12/XXXX + 25 years	10/12/XXXX + 26 years	10/12/XXXX + 27 years	10/12/XXXX + 28 years	10/12/XXXX + 29 years	10/12/XXXX + 30 years	10/12/XXXX + 31 years	10/12/XXXX + 32 years	10/12/XXXX + 33 years	10/12/XXXX + 34 years	10/12/XXXX + 35 years
Milestone Reference	Cumulative area achieved (ha)																							
RM1	41.69	69.6	101.5	135.8	174.1	221.05	264.08																	
RM2	41.69	69.6	101.5	135.8	174.1	221.05	264.08																	
RM3			41.69	69.6	101.5	135.8	174.1	221.05	264.08															
RM4				41.69	69.6	101.5	135.8	174.1	221.05	264.08														
RM5					41.69	69.6	101.5	135.8	174.1	221.05	264.08													
RM6						41.69	69.6	101.5	135.8	174.1	221.05	264.08												
RM8													41.69	69.6	101.5	135.8	174.1	221.05	264.08					
RM10																		41.69	69.6	101.5	135.8	174.1	221.05	264.08

4.6 (RA6) Rehabilitation area 6

Post-mining land uses (PMLU)							
Rehabilitation area		RA6					
Relevant activities		Void Low Wall					
Total rehabilitation area size (ha)		28.77					
Commencement of first milestone: RM1		10/12/XXXX + 10 years					
PMLU		Native Ecosystem					
Date area is available	10/12/XXXX + 10 years						
Cumulative area available (ha)	28.77						
Milestone completed by	10/12/XXXX + 11 years	10/12/XXXX + 13 years	10/12/XXXX + 14 years	10/12/XXXX + 15 years	10/12/XXXX + 16 years	10/12/XXXX + 31 years	10/12/XXXX + 36 years
Milestone Reference	Cumulative area achieved (ha)						
RM1	28.77						
RM2	28.77						
RM3		28.77					
RM4			28.77				
RM5				28.77			
RM6					28.77		
RM8						28.77	
RM10							28.77

4.7 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, where infrastructure is agreed to be retained by the landholder as evidenced by a signed landholder agreement, or required for rehabilitation activities, the following are complete: (a) All services disconnected and removed; (b) All buildings and associated infrastructure dismantled and removed offsite. (c) All hardstand, concrete areas and roads (bitumen, blue metal, aggregate etc.) removed. (d) All fencing and associated foundations removed. (e) All pipelines drained and removed. (f) All waste not authorised to be disposed of on-site under Environmental Authority EPML00367613 removed. (g) All surface water drainage infrastructure that is not compatible with the sustainment of the PMLU is removed. (h) All drillholes, sediment ponds and sumps decommissioned. (i) All machinery and equipment, not required for rehabilitation works removed. (j) All dams dewatered and desilted. (k) Watercourse crossings and culverts removed. 1.2 All below-ground infrastructure and services buried up to a depth of 0.5m achieve the following: (a) is mapped; (b) All pipelines have been drained and capped or filled with inert material; (c) The intended PMLU is not compromised; and (d) There is no ongoing risk of environmental harm. 1.3 All production extraction gas bores and associated infrastructure is decommissioned in accordance with the Code of Practice for the construction and abandonment of petroleum wells and associated bores in Queensland. 1.4 All surface to seam boreholes (including but not limited to, exploration bores, water monitoring bores, dewatering bores, ventilation and gas drainage bores) must be: (a) grouted and/or plugged; and (b) capped 0.5m below surface; and exploration bores decommissioned in accordance with '<i>Eligibility criteria and standard conditions for exploration and mineral development projects</i> (ESR/2016/1985)'

Milestone reference	Rehabilitation milestone	Milestone criteria
RM2	Identification, remediation and removal of contaminated land	2.1 Contaminated land investigations (investigation, remediation and validation) completed with respect to Chapter 7 of the EP Act demonstrate that no contamination unsuitable for the PMLU remains or is occurring. 2.2 Contaminated water and sediment are treated and removed from dams. 2.3 Contaminated and hazardous material is either remediated in-situ, encapsulated or removed/transported to an approved landfill for disposal and waste tracking information recorded and submitted. 2.4 Validation testing confirms that contaminated materials have been removed or remediated. 2.5 Evidence that all measures required in contaminated land assessments have been implemented. 2.6 No exposed hazardous materials at surface as determined by results of site contaminated land investigation including exposure due to erosion.
RM3	Landform development (re-profiling / re-shaping)	All rehabilitation areas 3.1 All major earthworks (including reshaping, pushing/trimming) completed in accordance with the design specification provided by an AQP, developed in accordance with condition PRCP19 to PRCP21 (inclusive), that achieves an outcome that is safe, erosionally and structurally stable, and appropriate to support the achievement of the PMLU. 3.2 Slope of constructed landform is $\leq 16.66\%$ (1V:6H) and verified by an AQP. 3.3 Constructed landform achieves geotechnical stability with a Factor of Safety (FOS) ≥ 1.5, which includes consideration of flood stress. 3.4 Disturbed natural watercourse/drainage line bed and banks returned to a natural condition with profile similar to the pre-disturbance condition. 3.5 All landforms are shaped to be water shedding. Void Low Wall (RA6) 3.6 Reshaping and reprofiling works completed to achieve: (a) Maximum slope of 20% for 95% of the low wall area (b) Maximum slope of 100% for other areas of incompetent rock (c) Landform is capped with $\geq 5\text{m}$ of NAF overburden and interburden (d) PAF material is not present at the final landform surfaces. (e) Littoral zone/s established as per Appendix 3 – Conceptual diagram lacustrine wetland for all void slopes reporting to the final void wetland.

Milestone reference	Rehabilitation milestone	Milestone criteria
		3.7 Completion of a geotechnical assessment to be carried out by a AQP to ensure slopes and overflow points are stable. Lacustrine wetland (RA1) 3.8 To minimise the potential for algae blooms and aquatic weeds development in the void, structures have been established in the landform to manage surface water runoff from disturbed land (e.g. the establishment of interception or drainage structures to meet the objectives of 'Treatment wetlands' of administering authority's Wetland Info Treatment wetlands — Planning and design (Department of the Environment, Tourism, Science and Innovation)).
RM4	Installation of a cover system	4.1 Certification from an AQP that tailings have dried and settled prior to capping. 4.2 Minimum capping layer of 5m of non-acid forming material placed. 4.3 Certification from an AQP that surface capped with suitable material that has been certified as complying with design requirements. 4.4 All potentially acid forming (PAF) material is located within an AQP designed and engineered cell, fully encapsulated in compacted non-acid forming (NAF) material. 4.5 Out-of-pit spoil dump designs ensure PAF materials are placed 100m back from the dump toe and include a thick (not less than 20m) outer zone of NAF materials (preferably high ANC) and incorporate strategies to limit oxygen transfer to and fluctuating moisture conditions in PAF materials. 4.6 The measured in-situ drainage flux from the cover system into the landform is <5% of average annual rainfall. 4.7 Capping layer does not display surface ponding. 4.8 The cover system displays erosional stability and supports the PMLU. 4.9 The cover is effective in mitigating the potential for migration of contaminants to the receiving environment. 4.10 Geotechnical assessment undertaken by an AQP confirms that the landform design will achieve long-term stability, meaning there is a low likelihood of mass failure. 4.11 Independent AQP has surveyed the final landform and certified that RM4.4 – RM4.8 have been achieved.
RM5	Surface preparation (topdressing, contour ripping, soil amelioration)	5.1 Prior to placement on landform, plant growth media is ameliorated as per AQP recommendations. 5.2 Growth media is placed to a minimum 0.2m in all areas to be rehabilitated. 5.3 Surface ripping will be undertaken to a minimum depth of 200mm unless compaction to depths greater than 200mm is observed in the field as measured by an AQP.

Milestone reference	Rehabilitation milestone	Milestone criteria
		5.4 Growth media tested by an AQP to confirm the following parameters are met: (a) pH in the range of 5.5 – 8.5; (b) Electrical Conductivity (saturated extent) is $\leq 2,000 \mu\text{S/cm}$; and (c) Exchangeable sodium percentage (ESP %) < 6; and (d) Emerson aggregate class is ≥ 4. 5.5 Certification by an AQP that the growth medium has physical properties (e.g. rockiness, depth of soil, wetness and plant available water capacity) that are adequate to sustain vegetation growth and chemical properties do not limit its suitability for vegetation growth to achieve the PMLU. 5.6 Surface water monitoring in accordance with condition PRCP20 and groundwater monitoring in accordance with condition PRCP22 must have commenced one year prior to this milestone for monitoring locations associated with the rehabilitation area (as specified in Appendix 8 – Surface water monitoring locations and Appendix 10 – Groundwater monitoring bores locations of) for which the milestone applies. *Note: Where surface water monitoring under other regulatory instruments uses the same surface monitoring locations and requirements, that monitoring data will be acceptable for RM5.6.
RM6	Revegetation	6.1 Completed seeding with a selection of native vegetation species and seeding rates in Appendix 1 – Species seed mix for relevant native vegetation PMLU, or an alternative species selection identified as appropriate by an independent AQP. 6.2 Minimum seeding rates of at least 10kg/ha of pure, live grass seed, 2kg/ha of pure, live uncoated legume seed and 4kg/ha of shade tree seed are to be applied, unless adjusted by an AQP. 6.3 Non-native seed must not be used for the revegetation (except when sterile cover crops are used) for the establishment of native ecosystem PMLU. 6.4 Appropriate erosion controls installed/placed and functioning as designed (as per AQP certified report) to ensure plant establishment is not significantly impacted from erosive events. Lacustrine wetland (RA1) 6.5 Aquatic plant species tubestock planted in the relevant zones as detailed in Appendix 2 – Lacustrine wetland PMLU Seed Mix, or an alternative species selection identified as appropriate by an independent AQP. 6.6 Native fish and macro-crustacean species introduced (once food webs develop), as detailed in Appendix 4 – Fish and macro-crustacean species, or an alternative species selection identified as appropriate by an independent AQP.

Milestone reference	Rehabilitation milestone	Milestone criteria
RM7	Achievement of surface requirements (native fauna habitat)	7.1 Surface water quality within the residual void complies with Appendix 9 – Surface water quality limits. 7.2 Absence of blooms of algae or macrophytes which are sufficiently large, or prolonged in duration, to compromise the ecological functioning of the wetland. 7.3 AQP confirms that any algal or macrophyte bloom present is not of an extent that would compromise the ecological function of the wetland. 7.4 Macroinvertebrate diversity indices are similar to those of analogue sites (Casava Dams 1 and 2) and have reached a stable trajectory. 7.5 Native fish have formed self-sustaining populations and do not require supplementary stocking. Species diversity comparable to analogue sites, taking into consideration differences in habitat. 7.6 AQP confirms the species presence and colonisation of Macroinvertebrates and species required to support the trajectory for the wetlands to be self-sustaining. 7.7 AQP confirms that native fauna species identified are suitable and of a presence that supports the wetlands to be self-sustaining (i.e. frogs and fish at various lifecycles) and insignificant to no populations of cane toads. 7.8 AQP confirms aquatic plant species used for establishment in the Lacustrine wetland have established a continuous fringe of dense aquatic vegetation along the littoral zone depicted in Appendix 3 – Conceptual diagram lacustrine wetland. 7.9 No evidence of erosion classified as 'moderate' or 'severe' as defined by Appendix 7 – Erosion classification framework.
RM8	Achievement of surface requirements (native ecosystem)	8.1 Species used in revegetation in accordance with RM6.1 remain present and show evidence of natural recruitment. Evidence of flora recruitment from rehabilitation monitoring data. 8.2 Weed presence is <5% of total vegetative cover. 8.3 Total vegetative groundcover ≥75% established and self-sustaining vegetative groundcover of species used in revegetation in accordance with RM6.1. 8.4 No evidence of erosion classified as 'moderate' or 'severe' as defined by Appendix 7 – Erosion classification framework. 8.5 Any erosion present will not compromise the achievement of a PMLU to a stable condition. 8.6 Erosion requiring intervention has been remediated and does not impact achieving the PMLU. 8.7 Corrective action arising from the routine inspections program have been undertaken. 8.8 Surface water runoff has been collected across representative areas of rehabilitation when surface flows occur and it is safe to do so. 8.9 Surface water runoff complies with Appendix 9 – Surface water quality limits.

Milestone reference	Rehabilitation milestone	Milestone criteria
		8.10 No evidence of scouring, overtopping, sedimentation or destabilisation in or associated with erosion and sediment control and engineered drainage structures. 8.11 All contour banks and other temporary erosion and sediment control structures have been removed. 8.12 The growth media's (topsoil and subsoil) physical, chemical and biological properties does not limit vegetation cover performance (e.g. nutrient availability, drought stress) or restrict the potential effective depth of rooting. 8.13 A BioCondition assessment is completed by an AQP using the methodology outlined in the latest version of the Queensland Herbarium's 'BioCondition Assessment Manual'. RA2, RA3, RA4, RA6 8.14 BioCondition assessed under RM8.13 demonstrates achievement of an overall score of 20 out of a possible 60 for the regional ecosystem for the Native Ecosystem PMLU as defined in Appendix 5 – BioCondition Benchmark for modified Regional Ecosystem RE 12.5.4. Waste Rock Disposal (RA5) 8.15 BioCondition assessed under RM8.13 demonstrates achievement of an overall score of 15 out of a possible 45 for the Modified Regional Ecosystem RE 12.5.4 Shrubland as defined in Appendix 6 – BioCondition Benchmark for modified Regional Ecosystem RE 12.5.4 shrubland. 8.16 Independent AQP certifies achievement of RM8.1 to RM8.15 inclusive.
RM9	Achievement of PMLU to a stable condition (native fauna habitat)	9.1 Void banks and upstream water management drainage systems to manage catchment inflows to the void are assessed as safe and stable. 9.2 Stratification modelling conducted with analysis confirming that the effects of disassembly does not impact on the achievement of the achievement and maintenance of lacustrine wetland and survivability of fauna 9.3 Assessment by an AQP using the Queensland Government's Wetland Condition Assessment Tool confirms that the lacustrine wetland has achieved a stable condition and is comparable to selected analogue sites (Casava Dams 1 and 2). 9.4 AQP confirms that disassembly events do not impact on the achievement of the freshwater (lacustrine) wetland. 9.5 The void is protected from flood water ingress at 0.1% AEP. 9.6 The void is safe to humans, wildlife and livestock. 9.7 An AQP demonstrates with water quality, water level and modelling data, that the residual void act as groundwater sinks post-closure such that water level and quality in the void do not and will not cause environmental harm to the receiving environment, as demonstrated by groundwater level, surface water and groundwater quality monitoring and modelling.

Milestone reference	Rehabilitation milestone	Milestone criteria
		9.8 Contaminated land investigations documentation including a site investigation report, and where required, a validation report and/or a draft Site Management Plan, completed in accordance with Chapter 7 of the EP Act. 9.9 Contaminated Land Auditor certifies that no contamination unsuitable for the PMLU remains or is occurring. 9.10 Hazard and Safety Assessment completed by an AQP demonstrates: (a) hazards are of a similar type and not significantly different to hazards in neighbouring landscapes subject to a similar land use. (b) retained water storages (banks and spillways) are safe and stable. 9.11 Independent AQP certifies achievement of RM9.1 – RM9.10 inclusive.
RM10	Achievement of PMLU to a stable condition (native ecosystem)	10.1 An AQP risk assessment is completed that confirms that safety hazards in the rehabilitation area are not significantly different to surrounding unmined landscapes subject to the same land use. 10.2 Any ESC and drainage structures to be retained as permanent features are certified by an AQP to remain stable with no increased risk of gully erosion at surrender. 10.3 The land is structurally and erosionally stable and achieved a FOS >1.5. 10.4 Low walls are internally draining. 10.5 Final landform survey confirms no built structures remain other than those that form part of a landholder agreement. 10.6 Certification from an AQP that rehabilitation is resilient to fire. 10.7 Contaminated land investigations documentation including a site investigation report, and where required, a validation report and/or a draft Site Management Plan, completed in accordance with Chapter 7 of the EP Act. 10.8 Contaminated Land Auditor certifies that no contamination unsuitable for the PMLU remains or is occurring. 10.9 Any seepage from rehabilitated landform complies with Appendix 9 – Surface water quality limits. RA2, RA3, RA4, RA6 10.10 A BioCondition assessment completed in accordance with latest version of Queensland Herbarium's BioCondition Assessment Manual determine that the PMLU has reached a BioCondition score of 35/60 as per Appendix 5 – BioCondition Benchmark for modified Regional Ecosystem 12.5.4 10.11 Species used in revegetation as per Appendix 1 – Species seed mix for relevant native vegetation PMLU remain present and showing evidence of natural recruitment from rehabilitation monitoring data.

PRCP schedule

PRCP Schedule P-PRCP-101033191 – Colton Coal Mine

Milestone reference	Rehabilitation milestone	Milestone criteria
		Waste rock disposal (RA5) 10.12 A BioCondition assessment completed in accordance with latest version of Queensland Herbarium's BioCondition Assessment Manual determine that the PMLU has reached a BioCondition score of 25/45 as per Appendix 6 – BioCondition Benchmark for modified Regional Ecosystem RE 12.5.4 shrubland. 10.13 Species used in revegetation as per Appendix 1 – Species seed mix for relevant native vegetation PMLU remain present and showing evidence of natural recruitment from rehabilitation monitoring data. 10.14 Independent AQP certifies achievement of RM10.1 – RM10.13 inclusive.

5 Section D – Non-use management areas

5.1 (IA1) Improvement area 1

Non-use management area (NUMA)	
Improvement area	IA1
Relevant activities	Void highwalls and end walls
Total size (ha)	17.84
Commencement of first milestone: RM1	10/12/XXXX + 16 years
NUMA	Void highwalls and end walls (with 20 m buffer applied)
Date area is available	10/12/XXXX + 16 years
Cumulative area available (ha)	17.84
Milestone completed by	10/12/XXXX + 18 years
Milestone Reference	Cumulative area achieved (ha)
MM1	17.84
MM2	17.84
MM3	17.84

5.2 Improvement area milestones

Milestone reference	Management milestone	Milestone criteria
MM1	Achievement of final landform design	1.1 The final design for highwall landform must be completed by an AQP based on the latest flood modelling and materials data prior to MM1 commencement. 1.2 Wall slopes in 'competent rock' must not exceed 65 degrees and in 'incompetent rock' must not exceed 45 degrees. 1.3 Final void is not subject to inundation from floodwaters across the NUMA area up to and including an 0.1% AEP event. 1.4 A FoS ≥ 1.5 within the NUMA extents achieved, as determined by an AQP.
MM2	Achievement of safety requirements	2.1 The safety bund is in accordance with engineering requirements including: (a) constructed from non-weathered, non-dispersive dumped rockfill; (b) a minimum 2m in height; (c) a minimum of 4m base width; (d) 1 in 3 batters; and (e) placed at least 10m beyond the area which may be affected by the void edge instability. 2.2 Fencing erected, where required to prevent access to the improvement areas, around the perimeter of the safety bund. 2.3 Safety signage (design in accordance with Australian standard) is erected at 100m intervals along the fence. 2.4 Independent AQP certifies achievement of MM2.1 – MM2.3.
MM3	Achievement of sufficient improvement	3.1 The final landform has been constructed in accordance with the Landform design closure report required by conditions PRCP22 to PRCP24 inclusive. 3.2 The NUMA area is safe to humans, wildlife and livestock. 3.3 The NUMA will not negatively impact on the stability of any adjacent rehabilitation areas, or their ability to sustain their PMLU. 3.4 Independent AQP certifies achievement of MM3.1 – MM3.3.

6 Section F – Appendices

Appendix 1 – Species seed mix for relevant native vegetation PMLU (RA 12.5.4)

Trees and Shrubs	Grasses	Forbs and other ground layer
<i>Acacia complanata</i>	<i>Alloteropsis semialata</i>	<i>Arthropodium milleflorum</i>
<i>Acacia disparrima</i>	<i>Aristida queenslandica</i>	<i>Breynia oblongifolia</i>
<i>Acacia flavescens</i>	<i>Cymbopogon refractus</i>	<i>Brunoniella australis</i>
<i>Acacia leiocalyx</i>	<i>Digitaria parviflora</i>	<i>Caesia parviflora</i>
<i>Acacia leptocarpa</i>	<i>Entolasia stricta</i>	<i>Dianella caerulea</i>
<i>Acacia quadrilateralis</i>	<i>Eragrostis brownii</i>	<i>Dianella longifolia</i>
<i>Acacia ulicifolia</i>	<i>Eremochloa bimaculata</i>	<i>Goodenia rotundifolia</i>
<i>Allocasuarina littoralis</i>	<i>Eriachne pallescens</i>	<i>Hardenbergia violacea</i>
<i>Allocasuarina torulosa</i>	<i>Fimbristylis cinnamometorum</i>	<i>Lomandra filiformis</i>
<i>Alphitonia excelsa</i>	<i>Fimbristylis dichotoma</i>	<i>Lomandra longifolia</i>
<i>Angophora leiocarpa</i>	<i>Imperata cylindrica</i>	<i>Lomandra multiflora</i>
<i>Banksia integrifolia</i>	<i>Panicum effusum</i>	<i>Patersonia sericea</i>
<i>Banksia oblongifolia</i>	<i>Paspalidium distans</i>	<i>Pimelea linifolia</i>
<i>Banksia robur</i>	<i>Themeda triandra</i>	<i>Xanthorrhoea johnsonii</i>
<i>Casuarina glauca</i>		<i>Xanthorrhoea latifolia</i>
<i>Corymbia intermedia</i>		
<i>Corymbia trachyphloia</i>		
<i>Cupaniopsis anacardioides</i>		
<i>Cyclophyllum coprosmoides</i>		
<i>Dodonaea viscosa</i>		
<i>Endiandra sieberi</i>		
<i>Eucalyptus crebra</i>		
<i>Eucalyptus exserta</i>		
<i>Eucalyptus latisinensis</i>		
<i>Eucalyptus siderophloia</i>		
<i>Eucalyptus tereticornis</i>		
<i>Glochidion ferdinandi</i>		
<i>Grevillea banksii</i>		
<i>Jacksonia scoparia</i>		
<i>Leptospermum polygalifolium</i>		
<i>Leptospermum trinervium</i>		
<i>Lophostemon confertus</i>		
<i>Lophostemon suaveolens</i>		
<i>Melaleuca cheelii</i>		
<i>Melaleuca nodosa</i>		
<i>Melaleuca quinquenervia</i>		
<i>Melaleuca viridiflora</i>		
<i>Petalostigma pubescens</i>		
<i>Ricinocarpus pinifolius</i>		

Appendix 2 – Lacustrine wetland PMLU seed mix

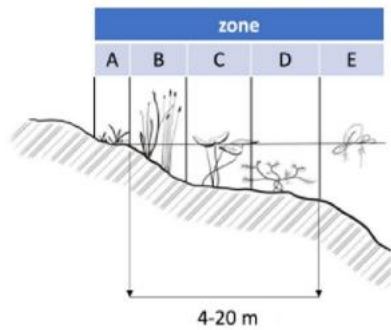
PMLU	Species	Common Name	Planting Density /m ² (tubestock)	Approximate Depth relative to stable water level (mAHD)	Zone
Native fauna habitat (lacustrine wetland) (RA1)	<i>Juncus</i> spp., including <i>Juncus kraussii</i> <i>Juncus polyanthemus</i>	N/A – Several rush species	8-10	-0.2 to 0	A
	<i>Cyperus</i> spp.	N/A – Several sedge species	8-10		
	<i>Fimbristylis</i> spp., including <i>Fimbristylis ferruginea</i> and <i>Fimbristylis polytrichoides</i>	N/A – Several sedge species	8-10		
	<i>Lomandra longifolia</i>	Basket grass	4-6		
	<i>Lomandra hystrix</i>	Green mat-rush	4-6		
	<i>Pseudoraphis spinescens</i>	Spiny mudgrass	8-10		
	<i>Sporobolus virginicus</i>		turf		
	<i>Typha orientalis</i> ,		3-5	0.1 to 0.6	B
	<i>Typha domingensis</i> ,		3-5		
	<i>Phragmites australis</i>		3-5		
	<i>Baumea</i> spp.		6-8		
	<i>Lepironia</i> spp.		6-8		
	<i>Bolboschoenus</i> spp.		4-6		
	<i>Cyperus</i> spp.	N/A – Several sedge species	6-8		
	<i>Eleocharis</i> spp.		4-6		
	<i>Juncus</i> spp., including <i>Juncus</i> <i>polyanthemus</i> and <i>J usitatus</i>	N/A – Several rush species	6-8		
	<i>Philydrum lanuginosum</i>		6-8		

PRCP schedule

PRCP Schedule P-PRCP-101033191 – Colton Coal Mine

PMLU	Species	Common Name	Planting Density /m ² (tubestock)	Approximate Depth relative to stable water level (mAHD)	Zone
	<i>Isolepis mucronata</i>		6-8		
	<i>Sacciolepis indica</i>		10-12		
	<i>Ludwigia octovalvis</i>		2-4		
	<i>Triglochin procerum</i>		4-6		
	<i>Persicaria decipiens</i>		4-6		
	<i>Ceratopteris thalictroides</i>		2-4		
	<i>Nymphaea violacea</i>		2-3	0.1 to 4	C
	<i>Nymphoides crenata</i>		2-3		
	<i>Nymphoides indica</i>		2-3		
	<i>Ottelia alismoides</i>		2-3		
	<i>Ottelia ovalifolia</i>		2-3		
	<i>Potamogeton</i> spp.		1		
	<i>Marsilea mutica</i>		4-6		
	<i>Monochoria cyanea</i>		2-3		
	<i>Ceratophyllum demersum</i>		6-8		
Final void and lacustrine wetland (RA1)	<i>Myriophyllum</i> spp.		6-8	0.5 to 2	D
	<i>Hydrilla</i> spp.		6-8		
	<i>Najas tenuifolia</i>		6-8		

Appendix 3 – Conceptual diagram lacustrine wetland



Note: diagram showing relationship of aquatic habitat zones around the final void and lacustrine wetlands.

Appendix 4 – Fish and macro-crustacean species potentially suitable for establishment in Lacustrine wetland area

Common name	Species	Comments
Lacustrine wetlands		
eastern rainbowfish	<i>Melanotaenia splendida splendida</i>	Omnivorous and breeds in lakes. Tolerant of a wide range of conditions.
Agassiz's glassfish	<i>Ambassis agassizii</i>	Schooling fish to 8cm. Will breed in lakes.
Empire gudgeon	<i>Hypseleotris compressa</i>	Omnivorous to 12cm. Larvae generally develop in estuaries, so may not breed well in lakes.
Firetail gudgeon	<i>Hypseleotris galii</i>	Carnivorous fish to 7cm. Will breed in lakes.
Midgley's gudgeon	<i>Hypseleotris sp.</i>	Carnivorous fish to 4cm.
purple-spotted gudgeon	<i>Mogurnda adspersa</i>	Mid-sized fish to 15 cm. Will breed in lakes.
Spangled perch	<i>Leiopotherapon unicolor</i>	Very hardy mid-sized fish to 25cm. Will breed in lakes.
Long-finned eel	<i>Anguilla reinhardtii</i>	Carnivorous to 1.6m. Requires access to sea for breeding and may travel across land.
Pacific blue-eye	<i>Pseudomugil signifer</i>	Carnivorous to 6cm. Will breed in lakes.
Hyrtl's catfish	<i>Neosilurus hyrtlii</i>	Mostly carnivorous to 4cm.
fly-speckled hardyhead	<i>Craterocephalus stercusmuscarum</i>	Omnivorous to 8cm.
orange-fingered yabby	<i>Cherax depressus</i>	Feeds on organic matter and grows to 9cm.
freshwater shrimp	<i>Family Atyidae and Palaemonidae</i>	Generally herbivorous to 8cm. Will breed in lakes.

Appendix 5 – BioCondition Benchmark for modified Regional Ecosystem RE 12.5.4¹

BioCondition Assessable Attributes	Attribute Weighting	BioCondition benchmark	Example attribute weighting for RM8	Example attribute weighting for RM10
Recruitment	5	100%	0	≥20% (=3 out of 5 weighting)
Non-native plant cover (%)	10	0%	<25% (=5 out of 5 weighting)	<25% (=5 out of 5 weighting)
Native Tree species richness	5	5	≥1 (=3 out of 5 weighting)	≥1 (=3 out of 5 weighting)
Native shrub species richness	5	9	≥2 (=3 out of 5 weighting)	≥2 (=3 out of 5 weighting)
Native grass species richness	5	7	≥2 (=3 out of 5 weighting)	≥2 (=3 out of 5 weighting)
Native forb / other species richness	5	18	≥4 (=3 out of 5 weighting)	≥4 (=3 out of 5 weighting)
Tree canopy height (m)	5	17	0	≥4.5 (=3 out of 5 weighting)
Tree canopy cover (%)	5	37	≥3.7 (=2 out of 5 weighting)	≥18.5 – 74 (=5 out of 5 weighting)
Shrub canopy cover (%)	5	19	≥1.9 (=3 out of 5 weighting)	≥9.75 – 38% (=3 out of 5 weighting)
Native perennial grass (%)	5	42	≥21 – 37.8% (=3 out of 5 weighting)	≥21 – 37.8% (=3 out of 5 weighting)
Litter ground cover (%)	5	29	0	≥14.5 – 58% (=3 out of 5 weighting)
Total BioCondition Assessable Score	60		>20 (Total of above =25)	≥35 (Total of above =37)

¹ Rehabilitated *Eucalyptus/Corymbia/Melaleuca* shrubby or grassy woodland.

Appendix 6 – BioCondition Benchmark for modified Regional Ecosystem RE 12.5.4 shrubland^{1,2}

BioCondition Assessable Attributes	Attribute Weighting	BioCondition benchmark	Example attribute weighting for RM8	Example attribute weighting for RM10
Recruitment of dominant shrub layer species	5	100%	0 (=3 out of 5 weighting)	≥20% (=3 out of 5 weighting)
Non-native plant cover (%)	10	0%	<25% (=5 out of 5 weighting)	<25% (=5 out of 5 weighting)
Native shrub species richness	5	9	≥2 (=3 out of 5 weighting)	≥2 (=3 out of 5 weighting)
Native grass species richness	5	7	≥2 (=3 out of 5 weighting)	≥2 (=3 out of 5 weighting)
Native forb / other native species richness	5	18	≥4 (=3 out of 5 weighting)	≥4 (=3 out of 5 weighting)
Shrub layer cover (%)	5	19	≥1.9 (=3 out of 5 weighting)	≥9.75 – 38% (=3 out of 5 weighting)
Native perennial grass (%)	5	42	≥21– 37.8% (=3 out of 5 weighting)	≥21– 37.8% (=3 out of 5 weighting)
Litter cover (%)	5	29	0	≥14.5 – 58% (=3 out of 5 weighting)
Total BioCondition Assessable Score	45		>15 (Total of above = 20)	>25 (Total of above =26)

¹No deep-rooted species to be sown.²A site's total BioCondition score can be comprised of different attribute scores but must meet or exceed the minimum (modified) total BC score for the relevant milestone.

Appendix 7 – Erosion classification framework

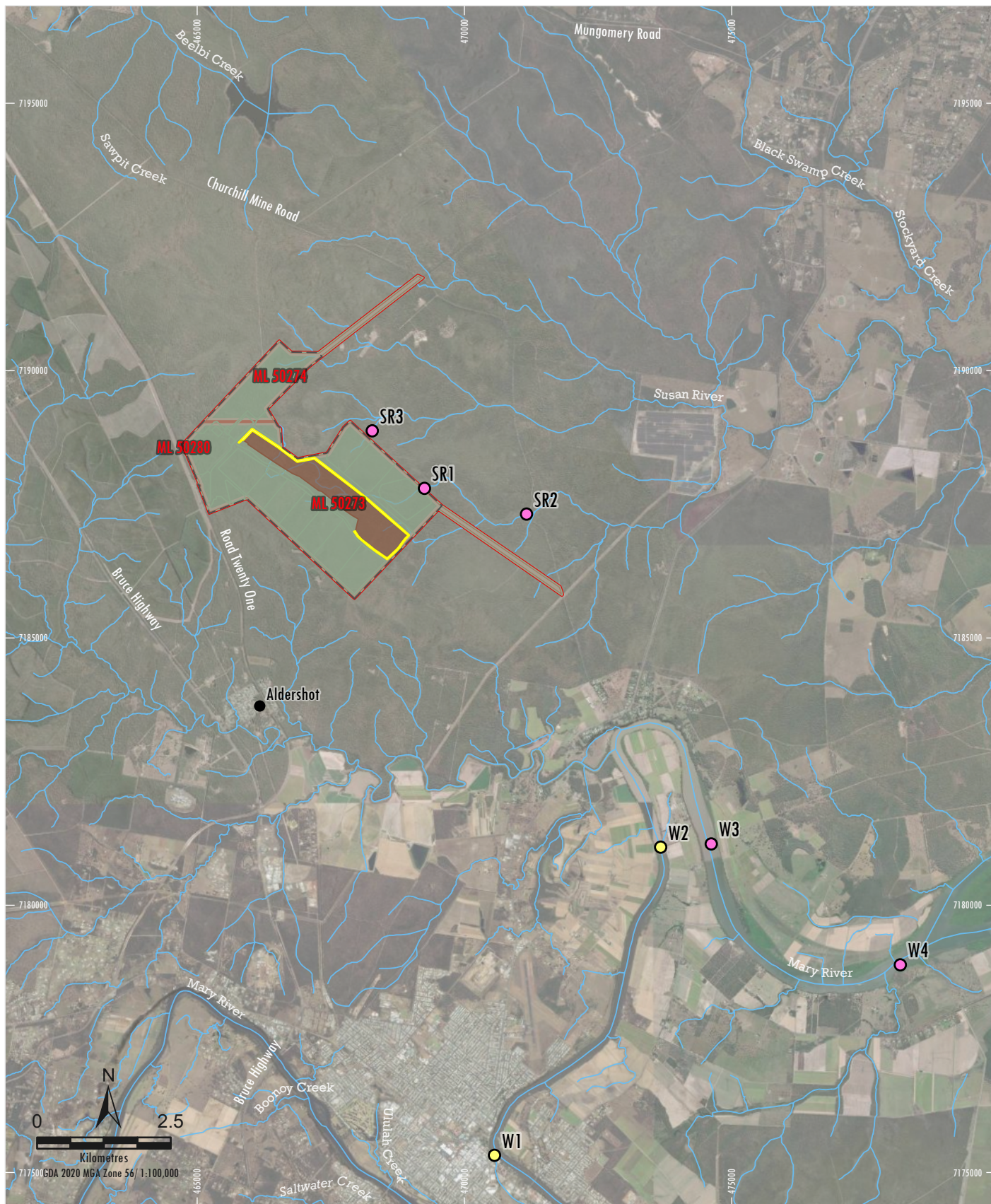
Erosion classification	Minor	Moderate	Severe
Sheet erosion	Shallow soil deposits downslope	Partial exposure of roots; moderate soil deposits downslope, etc	Loss of surface horizon; root exposure; moderate substantial soil deposits downslope
Rill erosion	<15 rills/100m transect*	15 – 30 rills/100m transect*	>30 rills/100m transect*
Gully erosion	Absent	Absent	Present
Tunnel erosion	Absent	Absent	Present
Mass movement	Absent	Absent	Present

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

** Rill frequency assessed on the contour over entirety of rehabilitation area (not only features that intersect a monitoring transect).*

Appendix 8 – Surface water monitoring locations

Monitoring points	Receiving waters location description	Latitude (GDA 2020)	Longitude (GDA 2020)
Upstream background monitoring points			
W1	Mary River Queens Park Boat Ramp	-25.539102	152.706983
W2	Mary River Upstream of Dundathu	-25.487116	152.738043
Downstream monitoring points			
W3	Mary River Downstream of Dundathu	-25.486588	152.74746
W4	Mary River HEV Zone boundary	-25.507068	152.782617
SR1	Susan River tributary	-25.42643	152.69423
SR2	Susan River tributary	-25.43081	152.71321
SR3	Susan River tributary	-25.41669	152.68454



Legend

- | | |
|--|--|
| Mining Leases (New Colton) | Post Mining Land Use |
| Maximum Disturbance (EA Area A) | Native Ecosystem |
| ● Upstream Monitoring | Native Fauna Habitat |
| ● Downstream Monitoring | Non-Use Management Area |
| | Non-Use Management Area |

Colton Coal Mine

Surface Water Monitoring Locations

Figure 3

Vessi

Appendix 9 – Surface water quality limits

Quality characteristics	Units	Limit	Reference
pH	pH units	6.0 – 8.0	Site-specific
Electrical conductivity	µS/cm	210	Site-specific
Turbidity	NTU	50	WQO
Sulphate (SO ₄ ²⁻)	mg/L	2	Site-specific
Fluoride	mg/L	1.7	ANZG 2018
Aluminium (Al) dissolved	µg/L	55	ANZG 2018
Arsenic (As) dissolved	µg/L	13	ANZG 2018*
Boron (B) dissolved	µg/L	940	ANZG 2018*
Barium (Ba) dissolved	µg/L	1	Site-specific
Cadmium (Cd) dissolved	µg/L	0.2	ANZG 2018*
Chromium (Cr) dissolved	µg/L	1.0	ANZG 2018
Cobalt (Co) dissolved	µg/L	1.4	ANZG 2018
Copper (Cu) dissolved	µg/L	1.4	ANZG 2018
Iron (Fe) dissolved	µg/L	280	ANZG 2018
Lead (Pb) dissolved	µg/L	3.4	ANZG 2018
Manganese (Mn) dissolved	µg/L	100	Site-specific
Mercury (Hg) dissolved	µg/L	0.06	ANZG 2018*
Nickel (Ni) dissolved	µg/L	11	ANZG 2018
Selenium (Se) total	µg/L	5	ANZG 2018*
Silver (Ag) dissolved	µg/L	0.05	ANZG 2018
Vanadium (V) dissolved	µg/L	6	ANZG 2018
Zinc (Zn) dissolved	µg/L	8	ANZG 2018*
Total recoverable hydrocarbons (C6-C9)	µg/L	20	
Total recoverable hydrocarbons (C10-C36)	µg/L	100	
Major ions (Ca, Cl, K, Mg, Na, CO ₃ , HCO ₃) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	mg/L	-	For interpretation purposes
Hardness	mg/L	-	For interpretation purposes

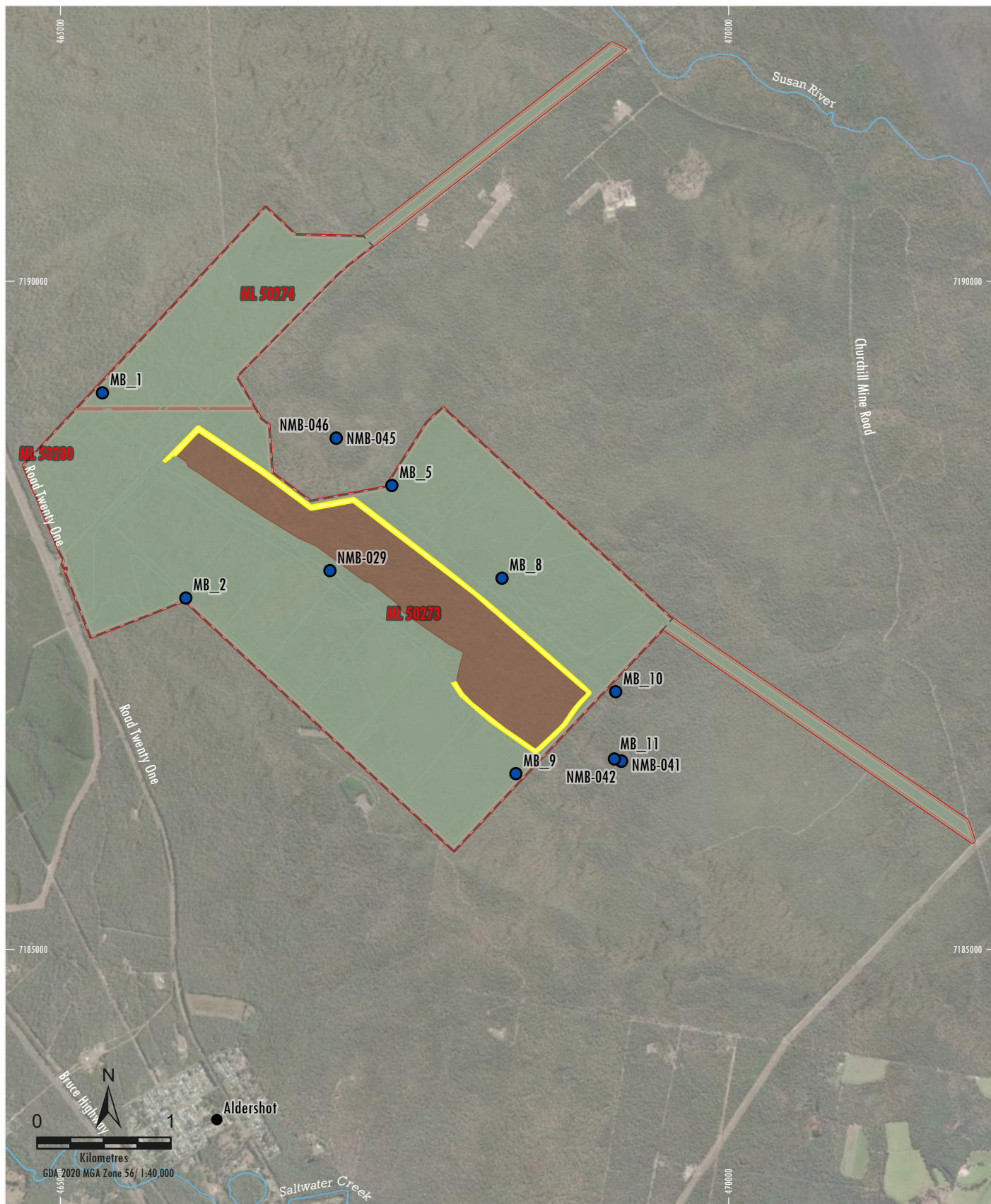
Notes:

- All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results. Except Selenium
- ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection). - freshwater. <https://www.waterquality.gov.au/anz-guidelines/guideline-values/default/water-quality-toxicants/search>
- Mary River WQOs lowland freshwater - https://environment.qld.gov.au/data/assets/pdf_file/0031/87565/mary-river-ev-2010.pdf
- WQO – Provide based on local WQOs or 95%il of the upstream data

Appendix 10 – Groundwater monitoring bores locations

Monitoring locations	Lithology monitored	Formation	Latitude (GDA2020)	Longitude (GDA2020)	Ground surface RL ¹ (mAHD)	Bore Depth (m)	Screening interval
NMB-029	Fine grained sandstone with minor coal	Burrum Coal Measures	-25.426051	152.671996	29.02	45.10	28.3-48.3
NMB-041	Coal Seams	Burrum Coal Measures	-25.438975	152.693657	19.20	51.38	34-50
NMB-042	Claystone/minor sandstone	Burrum Coal Measures	-25.438966	152.693657	19.22	21.00	14-20
NMB-045	Claystone with minor coal seams	Burrum Coal Measures	-25.417102	152.672482	31.05	56.22	42-56
NMB-046	Clay and coal	Burrum Coal Measures	-25.417102	152.672492	31.05	12.35	9-11
MB_1	Shallow	Elliot Formation	-25.414001	152.655100	-	5.88	2-5.88
MB_2	Shallow	Elliot Formation	-25.427877	152.661266	-	5.99	2-5.99
MB_5	Shallow	Elliot Formation	-25.420308	152.676620	-	5.97	2-5.97
MB_8	Shallow	Elliot Formation	-25.426593	152.684798	-	5.94	2-5.94
MB_9	Shallow	Elliot Formation	-25.439798	152.685798	-	5.98	2-5.98
MB_10	Shallow	Elliot Formation	-25.434278	152.693241	-	5.90	2-5.90
MB_11	Shallow	Elliot Formation	-25.438820	152.693130	-	5.98	2-5.98

¹ RL must be measured to the nearest 5 cm from the top of the bore casing.



Legend

- | | |
|---|---|
| Mining Leases (New Colton) | Post Mining Land Use |
| Maximum Disturbance (EA Area A) | Native Ecosystem |
| ● Groundwater Monitoring Bores | Native Fauna Habitat |
| | Non-Use Management Area |

Colton Coal Mine

Groundwater Monitoring Bores

Figure 4

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Appendix 11 – Groundwater quality limits

Quality Characteristics	Units	Limit	Reference
pH	pH units	6.0 – 9.0	
Electrical conductivity	µS/cm	6,606	Site-specific
Fluoride (F ⁻)	mg/L	1.7	ANZG 2018
Sulphate (SO ₄ ²⁻)	mg/L	280	Site-specific
Aluminium (Al) dissolved	µg/L	55	ANZG 2018
Arsenic (As) dissolved	µg/L	13	ANZG 2018
Barium (Ba) dissolved	µg/L	111	Site-specific
Boron (B) dissolved	µg/L	940	ANZG 2018
Cadmium (Cd) dissolved	µg/L	0.2	ANZG 2018
Chromium (Cr) dissolved	µg/L	1.0	ANZG 2018
Cobalt (Co) dissolved	µg/L	1.4	ANZG 2018
Copper (Cu) dissolved	µg/L	1.4	ANZG 2018
Iron (Fe) dissolved	µg/L	280	ANZG 2018
Lead (Pb) dissolved	µg/L	3.4	ANZG 2018
Manganese (Mn) dissolved	µg/L	1900	ANZG 2018
Nickel (Ni) dissolved	µg/L	11	ANZG 2018
Mercury (Hg) dissolved	µg/L	0.06	ANZG 2018
Selenium (Se) total	µg/L	5	ANZG 2018
Silver (Ag) dissolved	µg/L	0.05	ANZG 2018
Vanadium (V) dissolved	µg/L	6	ANZG 2018
Zinc (Zn) dissolved	µg/L	8	ANZG 2018
Major ions (Ca, Cl, K, Mg, Na, CO ₃ , HCO ₃) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	mg/L	-	For interpretation purposes
Hardness	mg/L	-	For interpretation purposes
Water level	mAHD		For interpretation purposes

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. Except Selenium.
- ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection) - freshwater. <https://www.waterquality.gov.au/anz-guidelines/guideline-values/default/water-quality-toxicants/search>

END OF PRCP SCHEDULE