

PRCP schedule

Environmental Protection Act 1994

PRCP schedule P-PRCP-100812653_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: P-PRCP-100812653_V1

PRCP schedule holder(s)

Name(s)	Registered address
AQUILA COAL PTY LTD	Level 12 225 St Georges Tce PERTH WA 6000 Australia
SOUTH32 EAGLE DOWNS PTY LTD	108 St Georges Tce PERTH WA 6000 Australia

Location details

Location(s)
Mining Lease (ML)70389, Petroleum Lease (PL) 485

Take effect

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



Signature

17 February 2025

Date

Ben Byrd

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

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

General Conditions

PRCP1 For each rehabilitation area, the holder must achieve the rehabilitation milestone criteria (milestone reference):

- i. for the cumulative area available specified in this schedule; and
- ii. by the milestone completion date specified in this schedule.

PRCP2 Where land becomes 'available for rehabilitation' earlier than the date nominated in this schedule, the holder must:

- i. notify the administering authority in writing within 30 days of the land becoming 'available for rehabilitation'. The written notification must include precise details of the relevant land area and the date when that land became 'available for rehabilitation'; and
- ii. within 90 days of the land becoming 'available for rehabilitation', apply to the administering authority to amend this schedule in a way that maximises the progressive rehabilitation of the land to a stable condition.

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

PRCP3 Where an area achieves a rehabilitation milestone, the holder must continue to achieve the milestone criteria until a surrender for the area is approved.

PRCP4 The holder must maintain a risk register that identifies the risks to not achieving a stable condition for post-mining land uses, and how the risks are being managed or minimised. The risk register must be reviewed annually.

PRCP5 The holder must undertake monitoring and maintenance as described in this schedule and the rehabilitation planning part for the activity. Where there is any inconsistency between this schedule and the rehabilitation planning part the schedule criteria prevail to the extent of the inconsistency.

PRCP6 The holder must make and keep up to date records on:

- i. Achievement and maintenance of achievement of each rehabilitation milestone criteria of this schedule.
- ii. 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 details and assumptions);
- iii. Maintenance of rehabilitation and the results of maintenance activities;
- iv. Monitoring of rehabilitation and the results of monitoring;
- v. Details and results of rehabilitation trials;
- vi. Designs, drawings, specifications and any similar documents developed in accordance with good professional practice in relation to rehabilitation milestones or milestone criteria;

- vii. All documents in relation to the requirements of this schedule, including reports (e.g. site investigation report), statements (e.g. site suitability statement), certifications, assessments, investigations, inspections, audits or any similar documents developed in relation to rehabilitation milestones or milestone criteria;
- viii. Landholder agreements;
- ix. Details of community consultation in the community consultation register relating to rehabilitation and closure activities.

- PRCP7** Records made under PRCP6 must be kept until the relevant environmental authority has been surrendered or cancelled.
- PRCP8** Records made under PRCP6 must be provided to the administering authority in the specified format within 10 business days of a written request.
- PRCP9** Chapter 5, Part 12, Division 1 of the *Environmental Protection Act 1994* prevails over condition **PRCP10** to **PRCP12** inclusive to the extent of any inconsistency.
- PRCP10** 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**)
- i. The 3-year period starting on the day the schedule takes effect; and
 - ii. Each 3-year period starting on the day after the previous audit period ended.
- PRCP11** The holder, within 4 months after the end of each audit period, gives the administering authority:
- i. The rehabilitation auditor's report (an **audit report**) about the audit, that complies with **PRCP12**, and
 - ii. A declaration by the authorised representative of the holder, for the audit report stating the holder –
 - a. Has not knowingly given false or misleading information to the rehabilitation auditor; and
 - b. Has given all relevant information to the rehabilitation auditor
- PRCP12** An audit report for a PRCP schedule must be in the approved form, and include the following:
- i. A statement about whether the holder has complied with the schedule during the audit period, including –
 - a. Details of actions the holder has taken, or failed to take, in relation to the rehabilitation milestones and management milestones under the schedule; and
 - b. Whether the holder has complied, or failed to comply, with conditions imposed on the schedule; and
 - c. Whether information given to the administering authority under this Act about rehabilitation carried out under the schedule is accurate;
 - ii. An assessment of whether the post-mining land use for land the subject of the schedule is likely to be achieved, having regard to the rehabilitation that has been and is to be carried out under the schedule;
 - iii. Recommendations about actions the holder should take to ensure rehabilitation milestones and management milestones are achieved or conditions of the schedule are complied with;
- PRCP13** At least 2 years prior to the earliest commencement of any rehabilitation milestone, an independent AQP, following peer review, certifies that existing and proposed permanent Erosion and Sediment Control (ESC) structures and drainage structures on site are appropriate to the landform, materials and the PMLU, with consideration given to their performance, stability, maintenance requirements, and residual risk post-closure; and provides for the achievement of stable condition as per the *Environmental Protection Act 1994*.
- PRCP14** The certification by the AQP under PRCP13 must make an assessment of whether the installation of such structures would result in greater environmental harm than the ponding of the landform.

- PRCP15** Where a structure would result in greater environmental harm, an amendment to EA EPML00586713 and the PRCP Schedule must be sought.
- PRCP16** The extent of ponding the result of the outcomes of **PRCP14** and **PRCP15** must not exceed the extent of RA2 depicted in Figure 2 Rehabilitation Areas.
- PRCP17** All AQP designs, specifications, certifications, assessments and any similar documents developed in accordance with good professional practice must include documented consideration of any relevant guideline or publication material.
- PRCP18** For surface water quality monitoring conducted under RM10 and RM11, where the surface water quality at the downstream site exceeds the upstream site result, an AQP must complete an assessment of the cause and risk of rehabilitation not achieving a stable condition within the schedule timeframe and:
- i. Where there is a low risk to achieving a stable condition from the ML70389 and PL485, then no further action is to be taken; or
 - ii. Where there is a risk greater than low to achieving a stable condition, then an assessment of potential environment harm and any changes or rectification actions to rehabilitation activities must be determined and implemented.
 - iii. PRCP18(i) can only be triggered 3 times over 5 consecutive years prior to surrender.
- PRCP19** The assessment under condition PRCP18 must be completed and provided to the administering authority within three (3) months of receiving the relevant sampling results.
- PRCP20** If condition PRCP18(ii) is triggered, the relevant 5-year timeframe under criteria RM10.10 or RM11.8 is reset.

PRCP21 ***Subsidence register***

The holder must keep a register of all longwall panels detailing:

- a) the surface area (ha) and depth within each subsided panel, including dry subsidence areas as well as areas with temporary and permanent/residual ponds;
- b) The locations of pre-existing drainage lines and drainage lines to be established to prevent/manage ponding;
- c) The locations of proposed and existing infrastructure;
- d) The pre-subsidence (baseline) condition of the vegetation and land condition; and
- e) Spatial data for each area including each temporary and permanent/residual pond modelled/predicted, and/or authorised ponded areas.

The register must be provided to the administering authority upon request.

- PRCP22** The baseline condition of each subsidence panel must be assessed prior to mining of each mining panel. The baseline condition must include, but is not limited to,
- a) Site hydrology and fluvial networks;
 - b) Soil types, properties and productivity;
 - c) Flora species composition and structure;
 - d) Land stability (pre-existing degradation/erosion and predisposition to ongoing stability issues); and
 - e) Regional ecosystem details, if remnant, and BioCondition assessed in accordance with latest version of the BioCondition Assessment Methodology (Queensland Herbarium*). Methodology may include digital surface model or terrain model generated via LiDAR survey.

Components of the baseline condition should be informed by the latest version of the Eagle Downs PRC planning part (underground mines) and where relevant, the Eagle Downs Subsidence management plan with consideration of the following:

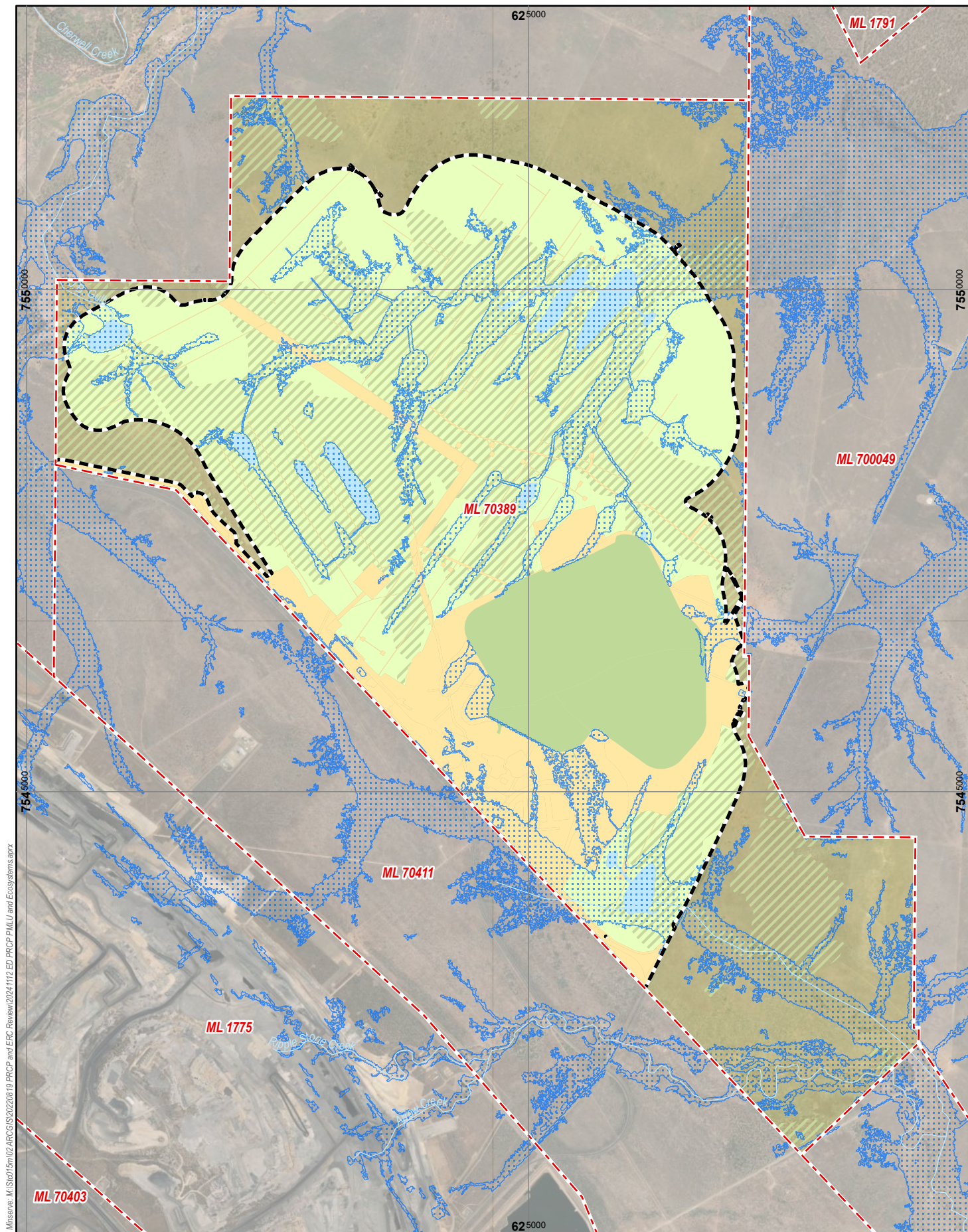
- i. Assessment of subsidence impacts on vegetation;
- ii. Subsidence analysis and modelling;
- iii. Surface ponding and cracking mitigation measures; and
- iv. Post-subsidence stabilisation requirements

The other information the administering authority considers necessary to decide whether to take action to amend the schedule under part 6 of the *Environmental Protection Act 1994* (QLD) (EP Act).

END OF CONDITIONS

* Eyre, T.J., Kelly, A.L, Neldner, V.J., Wilson, B.A., Ferguson, D.J., Laidlaw, M.J. and Franks, A.J. (2015). BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. Version 2.2. Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts, Brisbane.

Section B - Final site design and reference maps



Minserve: M:\S16\15m\1024\PCP\GIS\2020\19 PRCP and EPC Review\2024\112 ED PRCP PMLU and Ecosystems.aprx



0 200 400 600 800 1,000
Metres

Datum: GDA94 Zone 55
Scale: 1 : See Scale Bar (A4)
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DISCLAIMER: Third party data sources are used in this map compilation.
Minserve makes no warranty regarding this data's accuracy or currency.

LEGEND

- Mining Lease
- Maximum Disturbance Footprint
- Waterway
- Floodplain

PMLU TYPE

- Intermittent cattle watering holes
- Grazing
- Grazing (undisturbed)
- Native Ecosystem
- Remnant Regional Ecosystem
- Native Ecosystem (grassland RE 11.9.3)

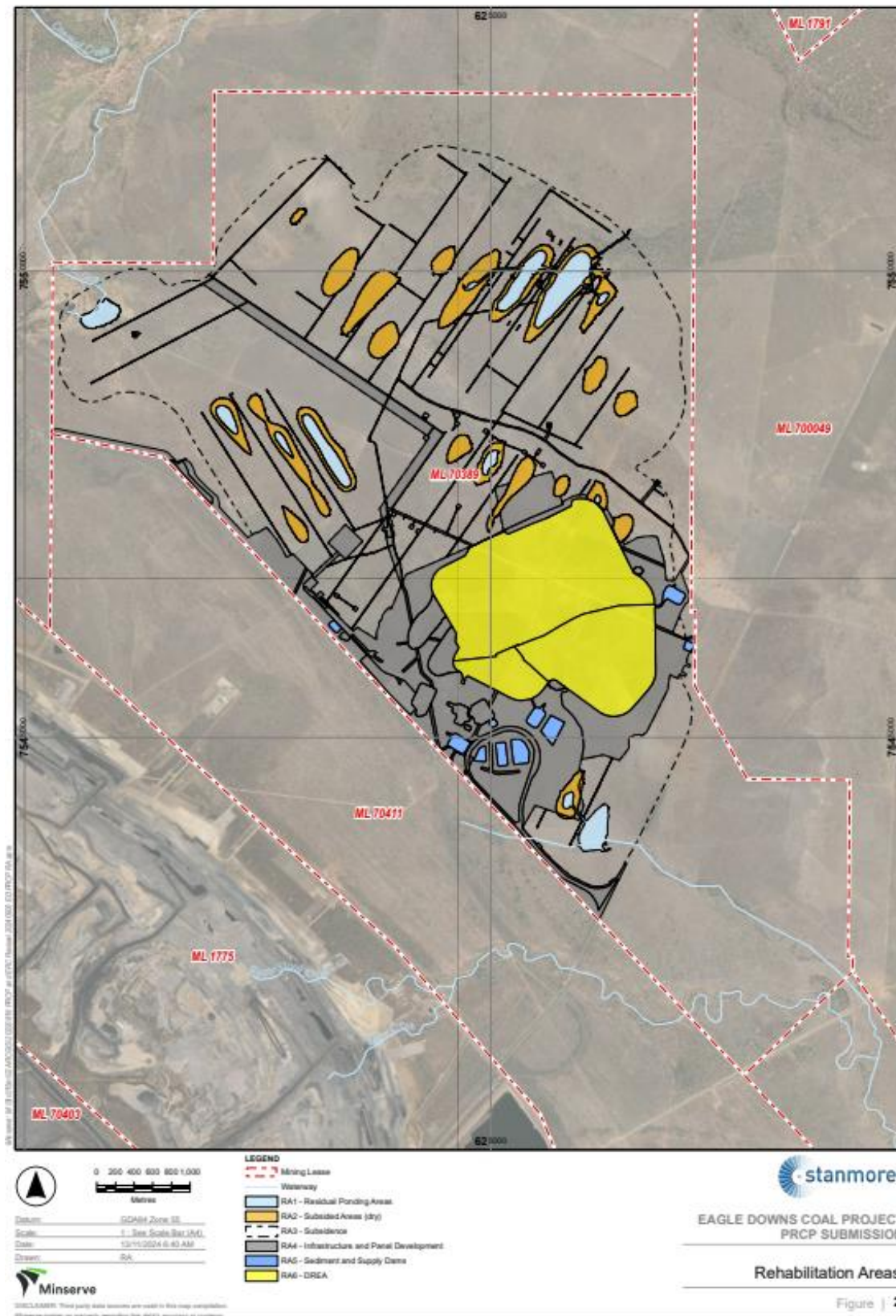


**EAGLE DOWNS COAL PROJECT
PRCP SUBMISSION**

Final Site Design

Figure | 1

Figure 2: Rehabilitation Areas



Section C – Post mining land uses

(RA1) Rehabilitation area 1

Post-mining land uses (PMLU)										
Rehabilitation area				RA1						
Relevant activities				Residual Ponding Areas						
Total rehabilitation area size (ha)				76.4 ha						
Commencement of first milestone: RM1				2045						
PMLU				Intermittent cattle watering holes						
Date area is available	1/01/2045	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085
Cumulative area available (ha)	8.0	8.0	8.0	8.0	27.7	41.1	41.1	76.4	76.4	76.4
Milestone completed by	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090
Milestone Reference	Cumulative area achieved (ha)									
RM1	8.0				27.7	41.1		76.4		
RM3		8.0			27.7	41.1		76.4		
RM5		8.0			27.7	41.1		76.4		
RM8			8.0			27.7	41.1		76.4	
RM9				8.0			27.7	41.1		76.4

(RA2) Rehabilitation area 2

Post-mining land uses (PMLU)											
Rehabilitation area				RA2							
Relevant activities				Subsided Areas (dry)							
Total rehabilitation area size (ha)				180.5							
Commencement of first milestone: RM1				2045							
PMLU				Native ecosystem							
Date area is available	1/01/2045	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090
Cumulative area available (ha)	1.7	1.7	1.7	1.7	41.2	78.9	119.2	180.5	180.5	180.5	180.5
Milestone completed by	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095
Milestone Reference	Cumulative area achieved (ha)										
RM1	1.7				41.2	78.9	119.2	180.5			
RM3		1.7			41.2	78.9	119.2	180.5			
RM5		1.7				41.2	78.2	119.2	180.5		
RM7		1.7				41.2	78.2	119.2	180.5		
RM8			1.7				41.2	78.2	119.2	180.5	
RM11				1.7				41.2	78.2	119.2	180.5

(RA3) Rehabilitation area 3

Post-mining land uses (PMLU)											
Rehabilitation area				RA3							
Relevant activities				Subsidence							
Total rehabilitation area size (ha)				1914.1							
Commencement of first milestone:RM1				2042							
PMLU				Native Ecosystem (Remnant vegetation)							
Date area is available	10/12/2042	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090
Cumulative area available (ha)	36	109	320	580	890	1210	1551	1914.1	1914.1	1914.1	1914.1
Milestone completed by	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095
Milestone Reference	Cumulative area achieved (ha)										
RM1	36	109	320	580	890	1210	1551	1914.1			
RM3	36	109	320	580	890	1210	1551	1914.1			
RM5		36	109	320	580	890	1210	1914.1			
RM7		36	109	320	580	890	1210	1551	1914.1		
RM8			36	109	320	580	890	1210	1551	1914.1	
RM11				36	109	320	580	890	1210	1551	1914.1

(RA4) Rehabilitation area 4

Post-mining land uses (PMLU)										
Rehabilitation area			RA4							
Relevant activities			Infrastructure							
Total rehabilitation area size (ha)			570.6							
Commencement of first milestone:RM1			2065							
PMLU			Grazing							
Date area is available	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090				
Cumulative area available (ha)	85	160	570.6	570.6	570.6	570.6				
Milestone completed by	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095				
Milestone Reference	Cumulative area achieved (ha)									
RM1	85	160	570.6							
RM2	85	160	570.6							
RM3	85	160	570.6							
RM5		85	160	570.6						
RM6		85	160	570.6						
RM8			85	160	570.6					
RM10				85	160	570.6				

(RA5) Rehabilitation area 5

Post-mining land uses (PMLU)										
Rehabilitation area				RA5						
Relevant activities				Sediment and Supply Dams						
Total rehabilitation area size (ha)				25.3						
Commencement of first milestone: RM1				2075						
PMLU				Grazing						
Date area is available	10/12/2075	10/12/2080	10/12/2085	10/12/2090						
Cumulative area available (ha)	25.3	25.3	25.3	25.3						
Milestone completed by	10/12/2080	10/12/2085	10/12/2090	10/12/2095						
Milestone Reference	Cumulative area achieved (ha)									
RM1	25.3									
RM2	25.3									
RM3	25.3									
RM5		25.3								
RM6		25.3								
RM8			25.3							
RM10				25.3						

(RA6) Rehabilitation area 6

Post-mining land uses (PMLU)										
Rehabilitation area				RA6						
Relevant activities				DREA						
Total rehabilitation area size (ha)				384.7						
Commencement of first milestone: RM1				2065						
PMLU				Native Ecosystem (Grassland)						
Date area is available	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090				
Cumulative area available (ha)	120	384.7	384.7	384.7	384.7	384.7				
Milestone completed by	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095				
Milestone Reference	Cumulative area achieved (ha)									
RM1	120	384.7								
RM2	120	384.7								
RM3	120	384.7								
RM4		120	384.7							
RM5			120	384.7						
RM7				384.7						
RM8				120	384.7					
RM11					120	384.7				

Rehabilitation area milestones

Milestone reference	Rehabilitation milestone	Milestone criteria
RM1	Infrastructure decommissioning and removal	1.1 RM1 does not apply to infrastructure required for rehabilitation Built Infrastructure 1.2 All services disconnected, terminated and removed offsite. 1.3 All buildings, and associated infrastructure (including concrete slabs and footings) demolished or removed offsite. 1.4 All roads (bitumen, blue metal, aggregate) removed. 1.5 All fencing not included in the PMLU removed offsite. 1.6 Machinery and equipment removed offsite. 1.7 All waste removed offsite. 1.8 All pipelines drained and removed. 1.9 All surface drainage infrastructure removed. Gas Drainage Boreholes 1.10 Borehole decommissioning completed in accordance with the Code of Practice for the Construction and Abandonment of Petroleum wells and associated bores in Queensland (the Code) (Department of Resources, 2019) latest edition. 1.11 An appropriately qualified person (AQP) has certified the borehole has been remediated in accordance with the Code. Surface to Seam Boreholes 1.12 For all surface to seam boreholes (including but not limited to, exploration bores, water monitoring bores, dewatering bores and bores with diameter up to 300mm): (a) Boreholes grouted and/or plugged. (b) Boreholes capped 0.5 m below surface. (c) Decommission of exploration bores completed in accordance with 'Eligibility Criteria and Standard Conditions for Exploration and Mineral Development Projects'
RM2	Identification, remediation and removal of contaminated land	2.1. Contaminated sediments and liners removed or incorporated into the final landform of the Dry Rejects Emplacement Area (DREA). 2.2. Brine disposed at a licenced waste facility.

		2.3 Contaminated Land Investigation Document completed in accordance with the <i>Environmental Protection Act 1994</i>, including a site investigation report, and, where required, a Validation Report and/or a draft Site Management Plan. 2.4 Contaminated and hazardous material either remediated in-situ or removed/transported to an approved landfill for disposal and waste tracking information recorded and submitted. 2.5 A declaration from a Suitably Qualified Person that no contamination unsuitable for the post-mining land use remains.
RM3	Landform reshaping and final contouring	All areas (excluding RA6) 3.1 Dams dewatered and desilted. 3.2 Liners from dams removed. 3.3 Rehabilitated areas stabilised and reshaped to a slope of less than 5%. 3.4 All major earthworks completed, slopes and general reshaping and pushing/trimming completed to achieve final landform. 3.5 An AQP certifies that the constructed landform achieves design criteria for geotechnical stability with a Factor of Safety (FOS) ≥ 1.5. DREA (RA6) 3.6 Closure and decommissioning plan has been reviewed and detailed design completed and certified by a third-party AQP. 3.7 Batter slopes reshaped following cessation of subsidence in accordance with the AQP design. 3.8 Batter slopes reshaped to $\leq 15\%$. 3.9 Free-draining top surface graded to 2%. 3.10 All major earthworks completed. 3.11 Fencing to exclude livestock installed. 3.12 An AQP confirms that performance objectives for the DREA clay liner have been achieved during construction, maintained during operations and are suitable for closure. 3.13 An AQP certifies that the constructed landform achieves design criteria for geotechnical stability with a Factor of Safety (FOS) ≥ 1.5.
RM4	Installation of a cover system (DREA)	4.1 Installation of a cover system in accordance with the AQP design. 4.2 Confirmation by an AQP that the cover system has been installed as per the design and displays erosional stability, is geotechnically stable and supports the PMLU. 4.3 Confirmation from AQP that the installed cover is effective in mitigating the potential for migration of contaminants from the DREA to the receiving environment.

RM5	Surface preparation	All rehabilitation areas 5.1 Any erosion or effects of subsidence remediated as per the closure conditions of the latest version of the Subsidence Management Plan and to ensure maintenance of the baseline condition (latest assessed) as determined under condition PRCP22. 5.2 Remediate any erosion or subsidence by, but not limited to, addition of rock and/or log cover to assist erosion resistance of eventual vegetative groundcover. 5.3 Prior to placement of soil material for rehabilitation, growth media¹ health and suitability must be assessed and certified by an AQP as suitable for PMLU and target vegetation and to determine the need for ameliorants and fertilisers prior to sowing seed. 5.4 Where growth media health and suitability assessment identifies that growth media criteria below are not met, a recommendation is made for ameliorants and fertilisers prior to sowing seed, growth media to meet the following: (a) $EC_e \leq 4$ dS/m (b) Soil pH ≥ 5 and ≤ 9 (c) Exchangeable Sodium Percentage (ESP%) $\leq 6\%$. 5.5 Ameliorants such as fertiliser, gypsum and/or organic matter applied at rates determined by an AQP. 5.6 The surface and groundwater monitoring network, including, but not limited, to those locations identified in Appendix 6 and Appendix 7, is installed and monitoring underway (one year of sampling undertaken). 5.7 At least 200mm of topsoil placed over disturbed areas². DREA (RA6) 5.8 Rainfall infiltration $\leq 5\%$ on top-surface and batters. Surface Openings 5.9 Construction of seal from surface into the underground workings complies with regulation 325 of the Queensland Coal Mining Safety and Health Regulations 2020 (CMSHR) and Registered Professional Engineer of Queensland (RPEQ) design. 5.10 Type E seal (ventilation control device capable of withstanding an overpressure of 70 kPa (CMSHR, 2020)) installed.
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¹ 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

² Disturbed area is defined as any area where activities authorised under Environmental Authority EPML00586713 has resulted in ground disturbance. Disturbance may include removal of vegetation, groundcover or soil material from an area.

		5.11 AQP has prepared an As-Constructed Report that details the works undertaken, and certified that construction and backfilling of underground openings met the design intent. Subsidence Areas (RA1, RA2, RA3) 5.12 The cessation of subsidence confirmed by AQP. 5.13 Subsidence cracks do not exceed ≥ 25 mm in subsided areas. 5.14 Depression/ ponding areas are free draining and require no further drainage works. 5.15 Assessment of permanent ponds is completed by an AQP and identified sediment and water management actions are completed 5.16 Ponds are safe for native animals and stock access and have vegetated banks. 5.17 Water storages to be assessed and approved as safe and stable by an AQP.
RM6	Revegetation - pasture grass	6.1 Nitrogen fixing Legume species included in seed mix. 6.2 Complete seeding of all topsoil surfaces using a rehabilitation seed mix comprising only the species permitted by Appendix 1 – pasture grass species. 6.3 Native or introduced pasture grass seed species used to control erosion applied at 12 kg/ha.
RM7	Revegetation - native grasslands	All rehabilitation areas 7.1 Nitrogen fixing legume species included in seed mix. DREA (RA6) 7.2 Complete seeding of DREA surfaces using a rehabilitation seed mix comprising only the species permitted by Appendix 2 – Native grassland (RE 11.9.3). 7.3 Seed with native grassland species applicable to RE 11.9.3 at 12kg/ha. Subsidence Areas (RA3) 7.4 Complete seeding of topsoil surfaces for disturbed areas using a seed mix that aligns with the species composition identified in the baseline condition assessment as described by PRCP22.
RM8	Achievement of surface requirement	All rehabilitation areas 8.1 Groundcover 60% perennial pasture biomass for grazing PMLU. 8.2 Weed presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP in annual monitoring. 8.3 Less than 5% of declared weeds (as defined in the <i>Biosecurity Act 2014</i>). 8.4 No evidence of erosion classified as 'moderate' or 'severe' as defined by Appendix 3 – Erosion classification framework. 8.5 Areas free of hazardous materials or are rendered safe. 8.6 Surface water runoff is non-polluting to receiving waters and complies with Appendix 5 – Surface water quality limits.

		8.7 A third party AQP certifies that any erosion present will not compromise the achievement of a PMLU to a stable condition. 8.8 Growth media to meet the following: (a) $EC_e \leq 4$ dS/m (b) Soil pH ≥ 5 and ≤ 9 (c) Exchangeable Sodium Percentage (ESP%) $\leq 6\%$. DREA (RA6) 8.9 Native vegetation communities must achieve $\geq 15/30$ from reference benchmark criteria of mapped pre-clear regional ecosystem for RE 11.9.3 as per Appendix 4 Benchmarks for native vegetation communities when measured by an AQP using the BioCondition Assessment Methodology. 8.10 Average soil loss rates of ≤ 5 t/ha/y on outer slope batters, with a maximum erosion rate of 10 t/ha/y. 8.11 No rills or gully erosion present ≥ 0.3 m deep. Subsidence Areas (RA1, RA2, RA3) 8.12 No bed or bank erosion within drainage structures or watercourses as a result of subsidence or subsidence management. 8.13 No cracking or destabilisation present in beds or bands of drainage structures or watercourses as a result of subsidence or subsidence management. 8.14 Excavated drainage channels do not expose highly erodible material. 8.15 Subsidence areas intersecting flood-prone zones must be designed to withstand flood events without compromising the stability of drainage structures or causing erosion.
RM9	Achievement of PMLU intermittent cattle watering hole to stable condition	9.1 No evidence of erosion classified as 'moderate' or 'severe' as defined by Appendix 3 – Erosion classification framework. 9.2 A third party AQP certifies that any erosion present will not compromise the achievement of a PMLU to a stable condition. 9.3 All watering holes to be assessed and approved as safe and stable by an AQP. 9.4 Watering holes contain water of a suitable quality for native wildlife and/or livestock ingestion.
RM10	Achievement of PMLU grazing to stable condition	10.1 Vegetation ground cover $> 70\%$. 10.2 3P (perennial, persistent and palatable) pasture species listed in Appendix 1, including legumes and grasses, remain present and showing evidence of natural recruitment in rehabilitation monitoring data.

		10.3 Weed presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP in annual monitoring. Weed management recommendations to be provided in annual reports and completed. 10.4 Less than 5% of total vegetative groundcover is declared weeds (as defined in the <i>Biosecurity Act 2014</i>). 10.5 Certification of rehabilitation to Grazing Class 3 by an AQP. 10.6 No evidence of erosion classified as 'moderate' or 'severe' as defined by Appendix 3 – Erosion classification framework. 10.7 A third party AQP certifies that any erosion present will not compromise the achievement of a PMLU to a stable condition. 10.8 The slope of rehabilitated infrastructure areas is less than 5%. 10.9 Surface water runoff is non-polluting to receiving waters and complies with Appendix 5 – Surface water quality limits. 10.10 Surface water quality results monitored within 48 hours of flow, but not limited to, downstream locations specified in Appendix 6, must not exceed the limits in Appendix 5 – Surface water quality limits, for a minimum of 5 consecutive years. 10.11 If the surface water quality exceeds criteria 10.10, the applicable upstream site must be compared to the downstream site result. 10.12 For a minimum of five consecutive years groundwater quality must be monitored quarterly at, but not limited to, bores specified in Appendix 7, for all quality characteristics listed in Appendix 8. 10.13 Groundwater quality results must not exceed the limits in Appendix 8, for 3 consecutive results. 10.14 Exploration activities outside approved disturbance area shown in Figure 1: Final Site Design are rehabilitated in accordance with the latest version of the Eligibility Criteria and Standard Conditions for Exploration and Mineral Development Projects (ESR/2016/1985). 10.15 All remaining infrastructure removed.
RM11	Achievement of PMLU native ecosystem to stable condition	All rehabilitation areas 11.1 Species used in revegetation (listed in Appendix 2) remain present and showing evidence of natural recruitment in rehabilitation monitoring data. 11.2 Weed presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP in annual monitoring. Weed management recommendations to be provided in annual reports. 11.3 Less than 5% of total vegetative groundcover is declared weeds (as defined in the <i>Biosecurity Act 2014</i>). 11.4 No evidence of erosion classified as 'moderate' or 'severe' as defined by Appendix 3 – Erosion classification framework.

		11.5 A third party AQP certifies that any erosion present will not compromise the achievement of a PMLU to a stable condition. 11.6 Surface water runoff is non-polluting to receiving waters and complies with Appendix 5 – Surface water quality limits. 11.7 Surface water quality results monitored within 48 hours of flow at, but not limited to, downstream locations specified in Appendix 6, must not exceed the limits in Appendix 5 – Surface water quality limits, for a minimum of 5 consecutive years. 11.8 If the surface water quality exceeds criteria 11.7, the applicable upstream site must be compared to the downstream site result. 11.9 For a minimum of five consecutive years groundwater quality must be monitored quarterly at, but not limited to, bores specified in Appendix 7, for all quality characteristics listed in Appendix 8. 11.10 Groundwater quality results must not exceed the limits in Appendix 8, for 3 consecutive results. 11.11 Exploration activities outside approved disturbance area show in Figure 1: Final Site Design are rehabilitated in accordance with the latest version of the Eligibility Criteria and Standard Conditions for Exploration and Mineral Development Projects (ESR/2016/1985). 11.12 All remaining infrastructure removed. Subsidence Areas (RA1, RA2, RA3) 11.13 No change to baseline vegetation species composition and structure to the latest baseline condition that has been assessed under condition PRCP22. DREA (RA6) 11.14 Native vegetation communities must achieve $\geq 18/30$ of values from reference benchmark criteria of mapped pre-clear regional ecosystem for RE 11.9.3 as per Appendix 4 Benchmarks for native vegetation communities, when measured by an AQP using the BioCondition Assessment Methodology. 11.15 Updated landform evolution modelling confirms erosional stability of subsided DREA landform has not been compromised relative to original LEM predictions
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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.

Appendix 1 – Pasture grass species

Common Name or variety	Scientific Name	Indicative Rate (kg/ha)
Kangaroo Grass	<i>Themeda triandra</i>	1
Queensland Bluegrass	<i>Dicanthium sericeum</i>	2
Japanese Millet	<i>Echinochloa esculenta</i>	2
Sabi Grass	<i>Urochloa mosambicensis</i>	2
Fine Cut Rhodes Grass	<i>Chloris gayana</i>	2
Forest Bluegrass	<i>Bothriochloa bladhii</i>	0.5
Seca Stylo	<i>Stylosanthes scabra</i>	0.5
Minimum total sowing rate		12

Appendix 2* – Native grassland (RE 11.9.3)

Common Name or variety	Scientific Name	Indicative Rate (kg/ha)
Queensland Bluegrass	<i>Dicanthium sericeum</i>	2
Curly Mitchell grass	<i>Astrebla lappacea</i>	1.5
Hoop Mitchell grass	<i>Astrebla elymoides</i>	1.5
Bull Mitchell grass	<i>Astrebla squarrosa</i>	1
Black Speargrass	<i>Heteropogon contortus</i>	2
Kangaroo Grass	<i>Themeda triandra</i>	1
Satintop grass	<i>Bothriochloa erianthoides</i>	0.5
Native Millet	<i>Panicum decompositum</i>	0.5
Minimum total sowing rate		12

*Sterile cover crops can be seeded to support initial establishment

Appendix 3 - Erosion classification framework

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

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

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

Appendix 4 – BioCondition Benchmark Criteria

Regional Ecosystem		11.9.3 Reference Benchmark	11.9.3 Indicative benchmark for 5 years(≥15/30)	BioCondition score	11.9.3 Indicative benchmark for 10 years (≥18/30)	BioCondition score
BioCondition attribute	Weighting	RE 11.9.3 <i>Dichanthium</i> / <i>Astrebla</i> grassland				
Non-native plant cover(%)	10	0%	<25% of vegetation cover	5	<25% of vegetation cover	5
Grass species richness*	5	10	≥25 – 90% of benchmark (≥ 3 spp.)	2.5	≥ 25 – 90% of benchmark (≥ 3 spp.)	2.5
Forbs and other species richness*	5	9	≥ 25 – 90% of benchmark (≥2 spp.)	2.5	≥ 25 – 90% of benchmark (≥ 2 spp.)	2.5
Native perennial grass cover (%)	5	53%	≥ 50% of benchmark (>26.5 %)	3	≥ 90% of benchmark (>47.7%)	5
Organic litter ground cover (%)	5	10%	≥ 10 – <50% of benchmark (> 1 – <5%)	3	≥ 10 – <50% of benchmark (> 1 – <5%)	3
Overall score required	30			>15		>18

* Species richness must be based on native species that occur in RE11.9.3 as per the RE technical description

⁵ Source: https://www.qld.gov.au/data/assets/excel_doc/0023/170285/bioconditon-benchmark-database-table.xlsx

Additional criteria: grass species to include at least 3 'indicator' species listed for Natural Grasslands of the Queensland Central Highlands and the Northern Fitzroy Basin (Commonwealth of Australia 2012; <https://www.dcceew.gov.au/sites/default/files/documents/bio237-0512-natural-grasslands-guide.pdf>) that occur in RE 11.9.3: *Aristida latifolia*, *Aristida leptopoda*, *Astrebla lappacea*, *Bothriochloa erianthoides*, *Dichanthium sericeum*, *Panicum decompositum*, *Paspalidium globoideum*

Appendix 5. Surface water quality limits

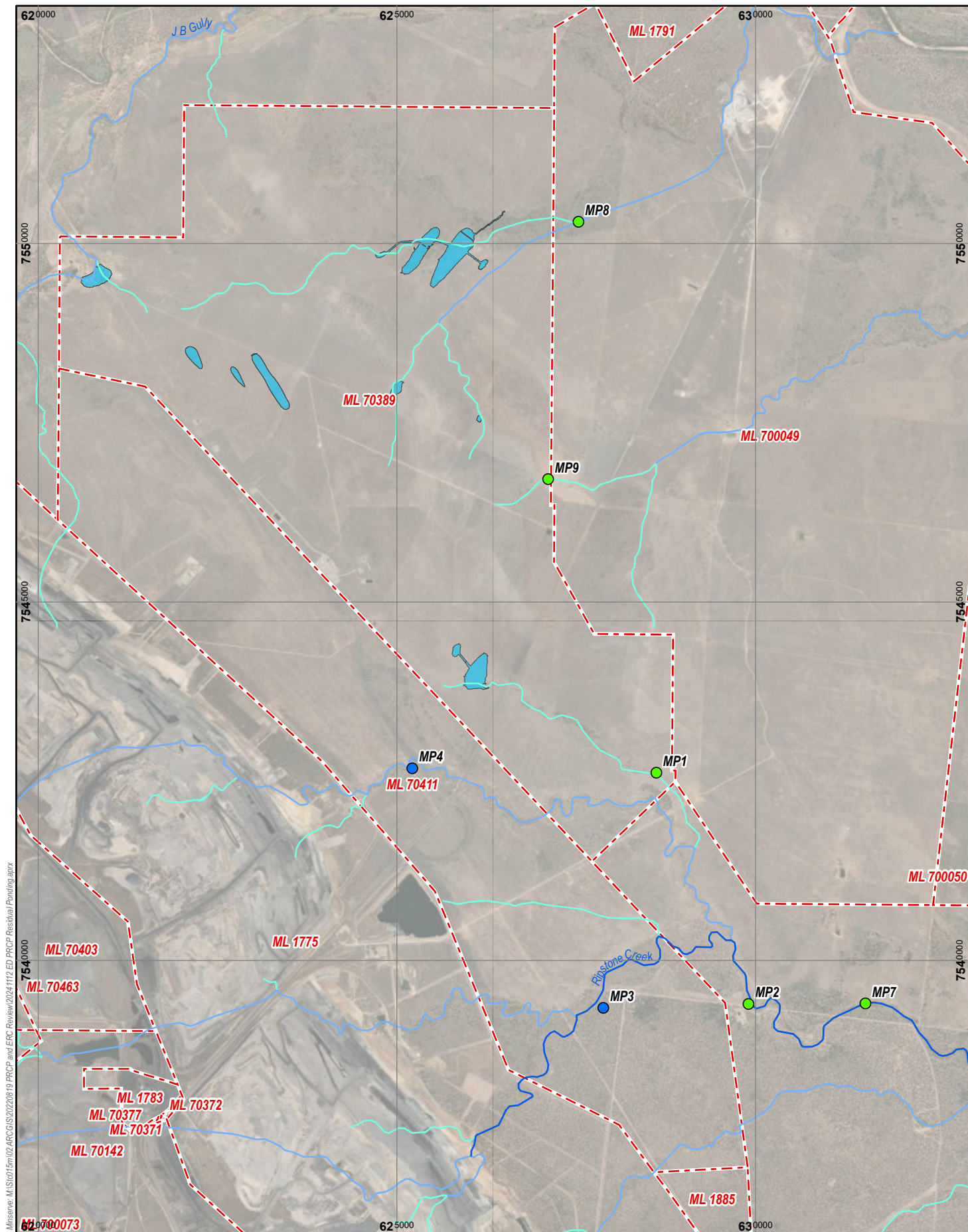
Quality characteristic (units)	Limit	Comment on limit
pH	6.5-8.5	Upper Isaac River catchment waters WQO
Electrical Conductivity (µS/cm)	720	Upper Isaac River catchment waters WQO
Turbidity (NTU)	50	Upper Isaac River catchment waters WQO
Sulphate (mg/L)	25	Upper Isaac River catchment waters WQO
Aluminium - dissolved (µg/L)	55	ANZG 2018
Antimony - dissolved (µg/L)	9	ANZG 2018
Arsenic - dissolved (µg/L)	13	ANZG 2018
Iron - dissolved (µg/L)	300	ANZG 2018
Mercury - dissolved (µg/L)	0.06	ANZG 2018
Molybdenum - dissolved (µg/L)	34	ANZG 2018
Nickel - dissolved (µg/L)	11	ANZG 2018
Selenium - dissolved (µg/L)	5	ANZG 2018
Nitrate (µg/L)	1100	
Total recoverable hydrocarbons (C6-C9) (µg/L)	20	
Total recoverable hydrocarbons (C10-C36) (µg/L)	100	
Major ions (mg/L) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	For interpretation purposes only	
Hardness (mg/L)	For interpretation purposes only	

Notes:

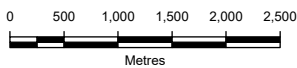
- All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- DEHP (2011) Isaac River Sub Basin WQO – surface water <https://environment.desi.qld.gov.au/__data/assets/pdf_file/0032/88817/fitzroy_isaac_river_wqo_290911.pdf>
- ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection)

Appendix 6. Surface water monitoring locations

Monitoring Locations	Receiving waters location description	Latitude (decimal degree, GDA2020)	Longitude (decimal degree, GDA2020)
<i>Upstream monitoring locations</i>			
MP3	Upstream Ripplestone Creek – flow from Peak Downs Mine	-22.245066	148.242067
MP4	Upstream Ripplestone Creek (Western Tributary)	-22.215094	148.215969
<i>Downstream monitoring locations</i>			
MP1	Downstream Ripplestone Creek Eastern Tributary immediately upstream of Winchester Road	-22.215395	148.248985
MP2	Downstream Ripplestone Creek	-22.244427	148.261701
MP7	Downstream Ripplestone Creek	-22.244231	148.277524
MP8	Downstream mining footprint	-22.146084	148.23784
MP9	Downstream mining footprint	-22.178526	148.234022



Minserve: M:\SIS\015\02\APRC\GIS\20220919\PRCP and EPC Review\20241112 ED PRCP Residual Ponding.aprx



Datum: GDA94 Zone 55
 Scale: 1 : See Scale Bar (A4)
 Date: 20/12/2024 11:59 AM
 Drawn: RA



DISCLAIMER: Third party data sources are used in this map compilation.
 Minserve makes no warranty regarding this data's accuracy or currency.

LEGEND

- Mining Lease
- Residual Ponding
- Surface Water**
- Downstream monitoring point (MP)
- Upstream monitoring point (MP)
- Stream Order**
- 1
- 2
- 3



**EAGLE DOWNS COAL PROJECT
 PRCP SUBMISSION**

Surface Water Monitoring Locations

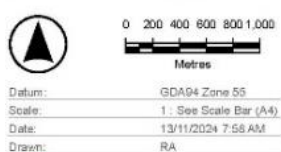
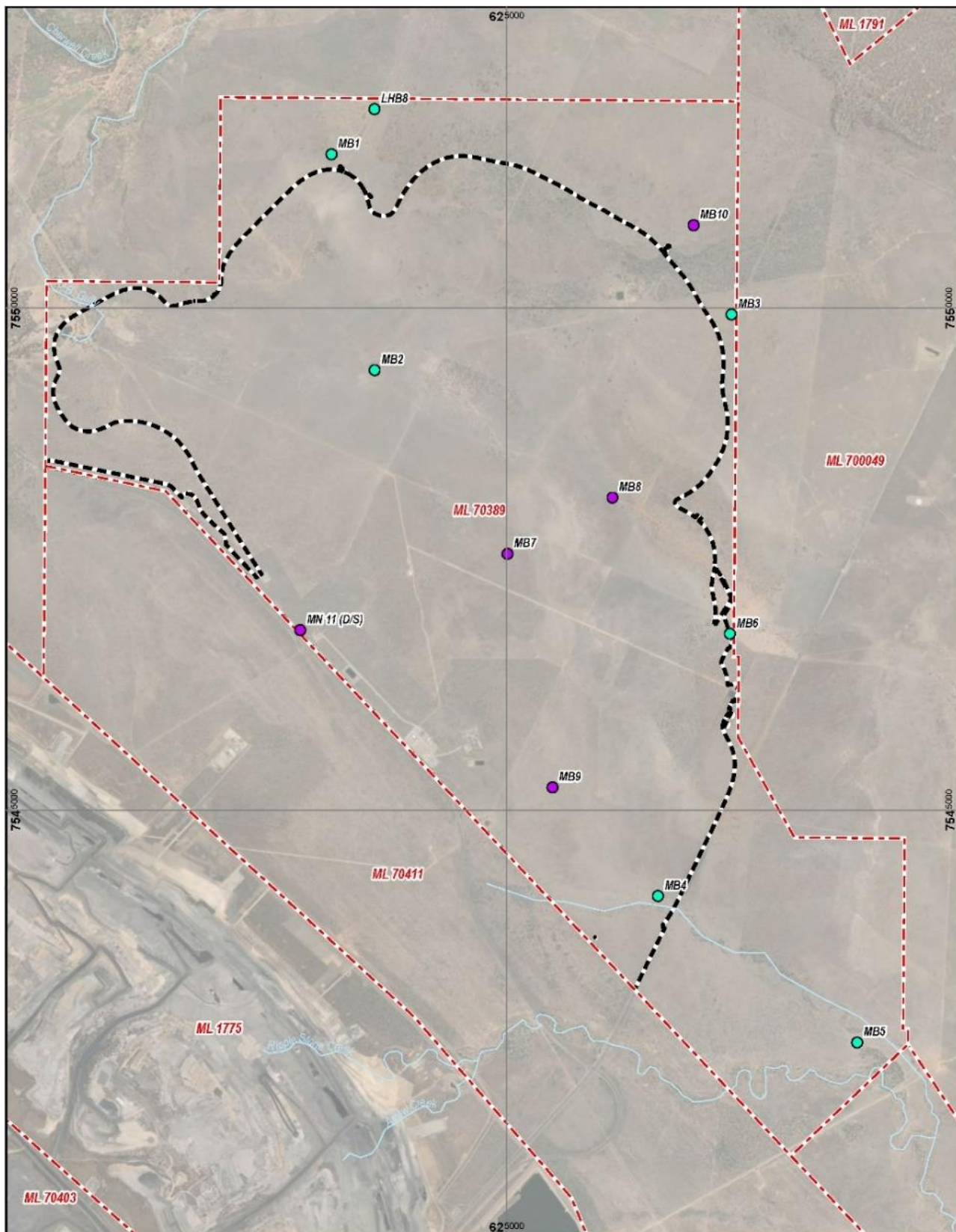
Appendix 7. Groundwater monitoring bores

Monitoring Bore	Screen geology	Location	
		Latitude (decimal degree, GDA2020)	Longitude (decimal degree, GDA2020)
MB1	Upper fractured rock, Fort Cooper CM - siltstone	-22.136842	148.195178
MB2	Upper fractured rock, Fort Cooper CM – sandstone and siltstone	-22.156231	148.199511
MB3	Upper fractured rock, Rewan Group	-22.150961	148.233948
MB4	Upper fractured rock, Fort Cooper CM –coal, sandstone and siltstone	-22.203347	148.227295
MB5	Upper fractured rock, Fort Cooper CM –coal, sandstone and siltstone	-22.216379	148.246656
MB6	Shallow CM - East of DREA along drainage line	-22.179693	148.234034
MB7	Shallow CM - North of DREA along eastern drainage line flowing north	-22.172665	148.212491
MB8	Shallow CM - North of DREA along western drainage line flowing north	-22.167531	148.222581
MB9	Shallow CM - North of DREA along western drainage line flowing north	-22.193651	148.217017
Landholder Bore 8 (LHB8)	- Upper fractured rock Fort Cooper CM	-22.131095	148.200394
MB10	- Rewan Group	-22.142968	148.230213
MB11 Deep(D)/Shallow(S)	Shallow weathered fractured rock	-22.179668	148.192514

Notes:

Coordinates GDA20 zone 55

CM – Coal Measures



EAGLE DOWNS COAL PROJECT
PRCP SUBMISSION

Post Closure Groundwater Monitoring

Figure | 4

Appendix 8. Groundwater quality limits

Quality characteristic (units)	Monitoring Bore	Limit	Comments
pH (pH units)	All bores	6 – 8.5	
Aluminium - dissolved (µg/L)	All bores	55	ANZG 2018
Antimony - dissolved (µg/L)	All bores	9	ANZG 2018
Arsenic - dissolved (µg/L)	All bores	13	ANZG 2018
Mercury - dissolved (µg/L)	All bores	0.06	ANZG 2018
Molybdenum - dissolved (µg/L)	All bores	34	ANZG 2018
Nickel - dissolved (µg/L)	All bores	11	ANZG 2018
Selenium - dissolved (µg/L)	All bores	5	ANZG 2018
Major ions (mg/L) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	All bores	For interpretation purposes only	
Hardness (mg/L)	All bores	For interpretation purposes only	

	MB1	MB2	MB3	MB4	MB5	MB6*	MB7*	MB8*	MB9*	MB10*	MB11S*	MB11D#	LHB8
Electrical conductivity (µS/cm)	2,100	4,270	18,700	13,200	5,740	8910	8910	8910	8910	8910	8910	16000	7,970
Sulfate (mg/L)	26	4	138	104	43	318	318	318	318	318	318	398	445
Iron - dissolved (µg/L)	800	260	5,000	240	1,800	140	140	140	140	140	140	246	1,000

Notes:

- All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- ANZG (2018): Aquatic ecosystem protection for moderately disturbed system (95% protection)
- * Environmental Protection (Water) Policy 2009 Fitzroy River Sub-basin Environmental Values and Water Quality Objectives Groundwater chemistry zone 34 shallow - <https://environment.des.qld.gov.au/__data/assets/pdf_file/0037/88795/fitzroy_fitzroy_river_wqo_290911.pdf>
- # Environmental Protection (Water) Policy 2009 Fitzroy River Sub-basin Environmental Values and Water Quality Objectives Groundwater chemistry zone 34 deep - <https://environment.des.qld.gov.au/__data/assets/pdf_file/0037/88795/fitzroy_fitzroy_river_wqo_290911.pdf>

END OF **PRCP** SCHEDULE