

PRCP schedule

Environmental Protection Act 1994

P-PRCP-100663948 – Broadlea Coal Mine

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

PRCP schedule: P-PRCP-100663948_v1

PRCP schedule holder(s)

Name(s)	Registered address
Argo Natural Resources Pty Ltd and Nebo Central Coal Pty Ltd	Level 20, 324 Queen St Brisbane City QLD 4000

Location details

Location(s)
Mining Lease (ML) ML70338, ML70345

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

Ben Byrd

Department of the Environment, Tourism, Science and Innovation

Delegate of the administering authority

Environmental Protection Act 1994

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

Section A - Conditions of PRCP schedule

Pursuant to section 206A of the EP Act:

- it is a condition of this PRCP schedule that, in carrying out a relevant activity under the schedule, the holder must comply with a requirement stated in the environmental authority relevant to carrying out the activity.
- it is a condition of this PRCP schedule that the holder must comply with the following matters stated in the schedule –
 - (a) each rehabilitation milestone and management milestone
 - (b) when each rehabilitation milestone and management milestone is to be achieved

General conditions

PRCP1 The holder must for each rehabilitation and improvement area, achieve the corresponding rehabilitation or management milestone criterion (milestone reference):

- (a) for the cumulative area available specified in this schedule; and
- (b) by the milestone completion date specified in this schedule.

PRCP2 Where 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 amend this schedule; and
- (c) unless otherwise agreed to by the administering authority in writing, amend this schedule in a way that maximises the progressive rehabilitation to a stable condition within the timeframe specified by the administering authority.

Notes:

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. The written notification must include precise details of the relevant land area and the date when that land became 'available for rehabilitation'
3. Assessment of land becoming available is undertaken on a nominally annual basis.
4. Rehabilitation of land size must be practicable.

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

PRCP4 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.

PRCP5 The risk register (**PRCP4**) must be reviewed every **3 years** and include consideration of the outcomes of PRCP monitoring data.

- PRCP6** The holder must carry out monitoring in accordance with:
- (a) any requirement under this schedule; and
 - (b) as necessary to demonstrate achievement of each rehabilitation milestone or management milestone criteria.
- Note: where there is any inconsistency between this schedule and the rehabilitation planning part, the schedule criteria prevails to the extent of the inconsistency.*
- PRCP7** The holder must make and keep up to date any evidence and/or records on which the holder relies on to demonstrate the achievement of each milestone criteria in this schedule. Records must be sufficient to demonstrate that these rehabilitation achievements are maintained for the duration of the environmental authority.
- PRCP8** Evidence and/or records made under **PRCP7** must be kept until the relevant environmental authority has been surrendered.
- PRCP9** Evidence and/or records made under **PRCP7** must be provided to the administering authority in the specified format within **20 business days** of a written request, or an alternative timeframe agreed by the administering authority.
- PRCP10** All AQP/SQP designs, specifications, certifications, assessments and any similar documents, must:
- (a) include documented consideration of any relevant guideline or publication material, including material published by the administering authority;
 - (b) detail the boundary conditions (of any model);
 - (c) detail any assumptions made, limitations and areas of uncertainty; and
 - (d) contain sufficient detail to allow for independent peer review and substantiation.
- PRCP11** Disturbance due to exploration and minor ancillary activities in areas not planned to be mined and not within a Rehabilitation Area in this Schedule must be rehabilitated in accordance with the provisions detailed in the 'Eligibility criteria and standard conditions for exploration and mineral development projects' or its successor, with the exception that land must be rehabilitated to a stable condition which includes achieving the relevant post mining land use for the disturbance location as detailed in *Figure 1 – Final Site Design*.
- PRCP12** By **10 December 2030**, for each relevant structure, an AQP prepared and independently peer reviewed, landform closure design report, which includes detailed engineering designs and a durability assessment, must be provided to the administering authority.

- PRCP13** The landform closure design report must at a minimum for the relevant structures include:
- (a) design aims and objectives of final landform, including any cover system and batters;
 - (b) demonstration that the total area proposed has considered all regulatory guidelines and best practice, and remains safe for humans and animals;
 - (c) the intended design life of the component parts of each relevant structure including the cover, plateau, batters, access points, water management, and associated monitoring network;
 - (d) quality assurance and quality control required during construction;
 - (e) detail on how the landform achieves acceptable geotechnical, erosional stability and pit wall geochemical stability;
 - (f) detail on how redundancy of the monitoring network has been identified and built into the final design;
 - (g) detail on how the design, including the component parts, supports the achievement of the nominated PMLU or achievement of best practice for the NUMA;
 - (h) detail on how the design is consistent with the durability assessment;
 - (i) detail on the critical design elements and associated assessment that support the achievement of a stable condition; and
 - (j) where any assumed or inferred material properties have been used in the design or its assessment (inclusive of modelling), detailed discussion justifying why actual/measured properties were not used, how uncertainties regarding material properties may affect performance, and how those uncertainties are managed.
- PRCP14** The AQP must provide certification that the landform closure design report is fit for purpose, and if constructed as per the landform closure design report, the rehabilitated landform will achieve a stable condition for areas achieving a PMLU or best practice management for areas achieving a NUMA in a post-closure context.
- PRCP15** The currency of the landform closure design report must be maintained, and the report updated as often as necessary, to ensure that the relevant structures will achieve a stable condition or best practice management, whichever is relevant, that can be sustained.
- Where the report has been updated, the certifications provided under **PRCP14** must also be provided in relation to the updates.
- PRCP16** Updated landform evolution modelling (LEM) must be completed and provided to the administering authority by **10 December 2030**. The updated 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*';
 - (b) cover a **100-year** period, including relevant time steps¹;
 - (c) identify whether contour banks and engineered structures are required to achieve stable landform;
 - (d) cover all constructed landforms identified as having a high erosion risk.

¹ Queensland Government's '*Applying erosion and Landscape Evolution Models to assess post-mining landform stability: Technical Paper*' identifies that erosion form and rate can be examined at any time step needed but suggests that for most sites model output should be initially examined at 10 and 100 years

- PRCP17** By **10 December 2030**, the holder must submit to the administering authority updated long term post-mining prediction numerical modelling that confirms:
- (a) the residual void(s) 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 or the surrounding PMLUs.
- PRCP18** The numerical modelling for **PRCP17**, must consider:
- (a) predicted groundwater elevation contours and expected drawdown for the major geologic units for the end of mining and post-mining at equilibrium, as per the latest version of the Australian Groundwater Modelling Guidelines;
 - (b) the outcomes of the water balance modelling, to assess the final void water levels in the residual void(s), with subsequent cross-consideration of the water balance model with the updated numerical model; and
 - (c) predicted groundwater inflows and losses to groundwater.
- PRCP19** A closure-state groundwater and water balance model (calibrated once data becomes available), in accordance with those developed for **PRCP17** and **PRCP18**, must be rerun at least every **five years** (or a date agreed with the administering authority), from the date of original approval of the PRCP and within a year of any surrender application, that includes:
- (a) predictions of interactions with the residual void(s); and
 - (b) impacts on predicted groundwater levels.
- PRCP20** Submitted reports on the modelling conducted for **PRCP 17** to **PRCP19** must provide:
- (a) the modelling process undertaken including the models developed and simulated, the calibration process, how interactions with contaminated areas such as spoil dumps have been included and the groundwater model area used;
 - (b) the geographic background and where drawdown is predicted to occur;
 - (c) maps at scale that show the groundwater modelling area and predicted impacts in relation to the mining lease boundaries;
 - (d) contour maps that show where drawdown is expected to occur and groundwater elevation contours based on observed data to support the statements about hydraulic gradient; and
 - (e) supporting information regarding hydraulic conductivities in hydrostratigraphic layers and baseline data to support predicted elevated groundwater levels.
- PRCP21** If the modelling undertaken in accordance with condition **PRCP17** and **PRCP19** indicates it is likely that the final landform will not achieve stable condition, the holder must within **6 months** amend this PRCP schedule to address the identified risk and reassess the matter to demonstrate that the landform can achieve the criteria in this PRCP schedule and reach a stable condition.

PRCP22 By **10 December 2030**, the holder must submit to the administering authority, the flood protection modelling carried out to inform the flood protection landform design and how it provides protection against a **0.1% AEP** flood event plus **0.5m** freeboard. The modelling undertaken must:

- (a) include calibration data, validation against evidence and sensitivity testing;
- (b) include the assumptions made to inform the modelling and the justification for all key hydrologic and hydraulic parameters;
- (c) incorporate consideration of climate change in the modelling in hydraulic interactions of the final landform features under floods up to PMF;
- (d) avoid the use of breaklines or similar hydraulic constraints that artificially prevent flood ingress;
- (e) include modelling that considers both empty and ponded conditions for the residual voids (PMLU and NUMAs).

The modelling must be updated as validation and calibration data becomes available.

PRCP23 By **10 June 2031**, a flood protection landform design plan and report must be provided to the administering authority for any flood protection structures and features (if required) and must be developed and certified by an AQP that demonstrates that the final landform design required by **PRCP22** achieves **hydraulic stability, erosion resistance, and geotechnical stability** consistent with the risk level identified and provides protection against a **0.1% AEP** flood event plus **0.5m** freeboard.

PRCP24 The flood protection landform design plan and report must, at a minimum, include:

- (a) Consideration of final landform topography including residual void design, spoil dumps and final landform drainage;
- (b) a flood risk assessment to determine whether the final landform including residual voids will not cause serious harm to the receiving environment, and
- (c) where material risks are identified, recommend risk-proportionate mitigation measures, including design modifications or new protection measures (e.g. levee, armouring, grade control, drainage realignment, spillway works, partial re-profiling or backfilling), to ensure flood immunity, stability, and environmental protection at closure.

END OF CONDITIONS

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.
Environmentally problematic material	means material that will negatively impact water quality and stability or vegetation growth.
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 subject matter 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 and is able to satisfy a reasonable person that they have no conflict of interest on the matter that is 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.
Minor ancillary activities	relevant activities associated with Schedule 3 13, ERA 8 Chemical Storage, and ERA 60 Waste Disposal on mining leases ML70345 and ML70338.
Potentially acid forming (PAF)	means the geochemical classification criterion for a sample that has the potential to generate acid conditions. A sample classified as PAF has an acid generation potential that exceeds the inherent neutralising capacity of the material. This means that such material is likely to generate acidic drainage if exposed to atmospheric conditions.

PRCP schedule

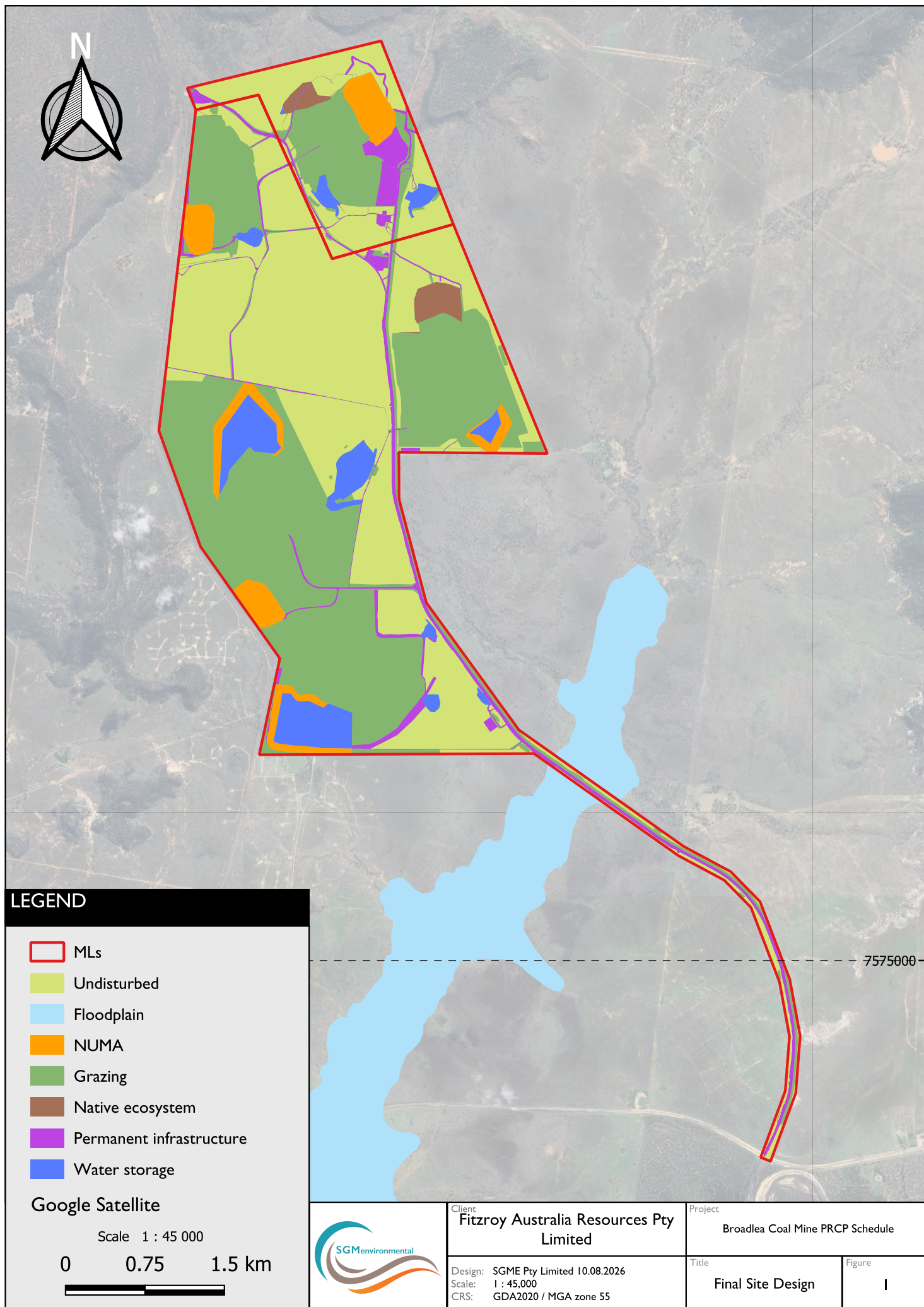
P-PRCP-100663948 – Broadlea Coal Mine

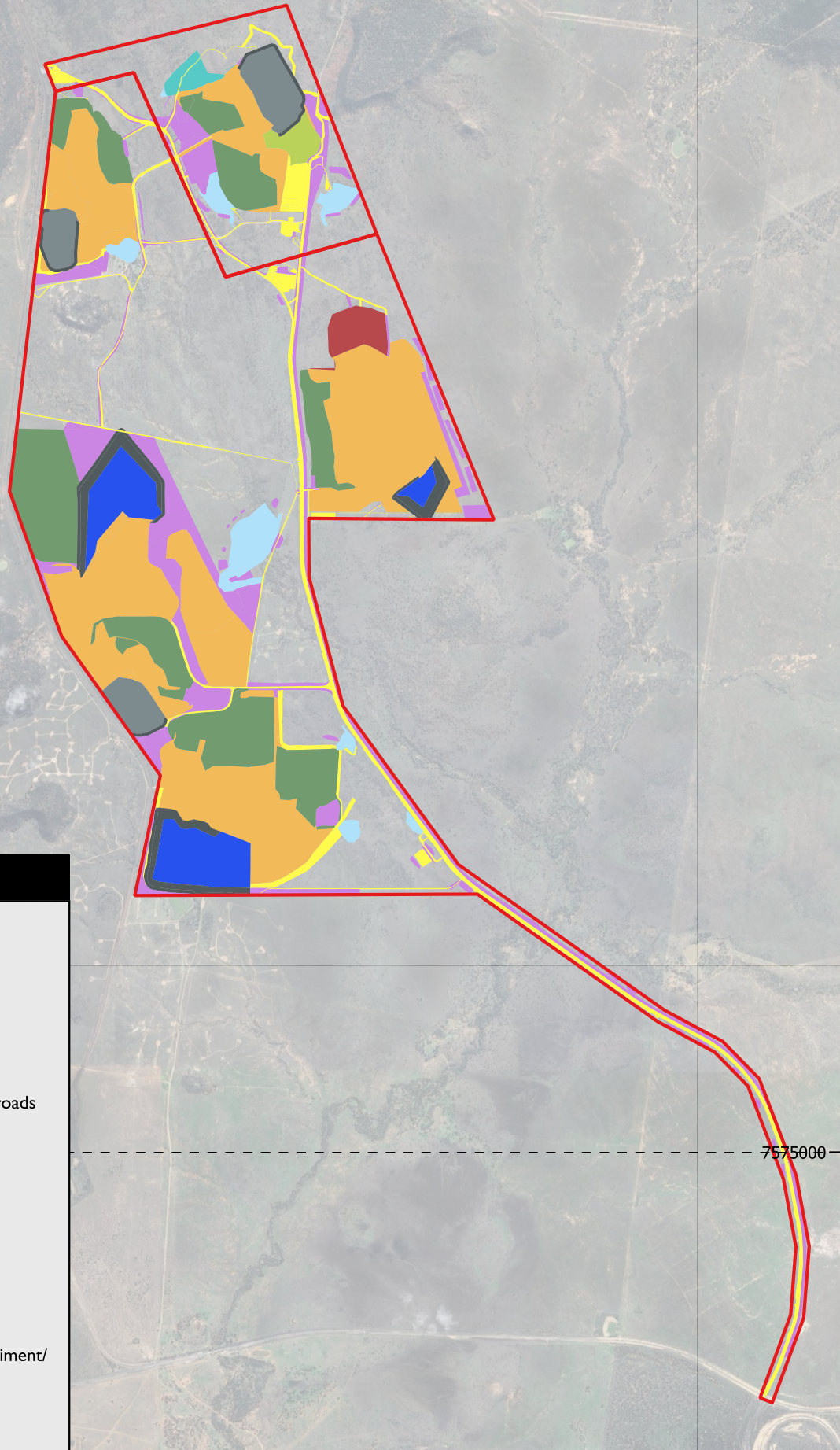
Relevant structure	includes spoil dumps and residual void improvement area.
Rehabilitation activity	means any activity that the holder is required to carry out in relation to this PRCP schedule.
Rill	a rill is a channel excavated by water, less than 0.3m deep.
Stable condition	see section 111A of the <i>Environmental Protection Act 1994</i> .
Suitably qualified and experienced person (SQP)	for performing a regulatory function under chapter 7, part 8 (Contaminated Land) of the EP Act or another function prescribed under a regulation, means a person who— (a) has qualifications and experience relevant to performing the function; and (b) if a regulation prescribes an organisation for this paragraph—is a member of the organisation.
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.

Section C - Final site design and reference maps

Figure 1 – Final Site Design

Figure 2 – Reference Map





LEGEND

- MLs
- IA1 - NUMA
- IA2 - NUMA
- RA1 - Existing rehabilitation
- RA2 - Stockpiles, ROM pads, cleared areas and non-retained roads
- RA3 - Spoil dumps
- RA4 - Spoil dumps
- RA5 - Area B (N3 North) and MSES disturbance areas
- RA6 - Residual voids (N1, N2, N3 pit lakes)
- RA7 - Infrastructure
- RA8 - Water infrastructure (sediment/ supply dams)
- RA9 - Quarry

Google Satellite

Scale 1 : 45 000

0 0.75 1.5 km



Client
Fitzroy Australia Resources Pty Limited

Project
Broadlea Coal Mine PRCP Schedule

Design: SGME Pty Limited 10.08.2026
Scale: 1 : 45,000
CRS: GDA2020 / MGA zone 55

Title
Reference map

Figure
2

Section D– Post mining land uses

Milestone reference	Rehabilitation milestone	Rehabilitation Area								
		RA1	RA2	RA3	RA4	RA5	RA6	RA7	RA8	RA9
RM1	Infrastructure decommissioning and removal									
RM2	Identification, remediation and removal of contaminated land									
RM3	Landform development and reshaping									
RM4	Surface preparation									
RM5	Revegetation									
RM6	Achievement of surface requirement									
RM7	Achievement of post-mining land use to a stable condition									

Notes:



= RM applies to the corresponding rehabilitation area (RA)

(RA1) Rehabilitation area 1

Post-mining land uses (PMLU)				
Rehabilitation area		RA1		
Relevant activities		Existing rehabilitation		
Total rehabilitation area size (ha)		172.6		
Commencement of first milestone: RM1		10/12/2026		
PMLU		Grazing		
Date area is available	10/12/2026			
Cumulative area available (ha)	172.7			
Milestone completed by	10/12/2029	10/12/2032	10/12/2037	10/12/2042
Milestone Reference		Cumulative area achieved (ha)		
RM1	172.7			
RM2		172.7		
RM6			172.7	
RM7				172.7

(RA2) Rehabilitation area 2

Post-mining land uses (PMLU)																		
Rehabilitation area					RA2													
Relevant activities					Stockpiles, ROM pads and cleared areas													
Total rehabilitation area size (ha)					142.3													
Commencement of first milestone: RM1					10/12/2029													
PMLU					Grazing													
Date area is available	10/12/2029	10/12/2032	10/12/2034	10/12/2037	10/12/2040	10/12/2042	10/12/2043	10/12/2045	10/12/2046	10/12/2047	10/12/2048	10/12/2049	10/12/2050	10/12/2051	10/12/2053	10/12/2054	10/12/2056	10/12/2059
Cumulative area available (ha)	4.1		20.6	25.2	32.3		37.2		142.3									
Milestone completed by	10/12/2032	10/12/2034	10/12/2037	10/12/2040	10/12/2042	10/12/2043	10/12/2045	10/12/2046	10/12/2047	10/12/2048	10/12/2049	10/12/2050	10/12/2051	10/12/2053	10/12/2054	10/12/2056	10/12/2059	10/12/2064
Milestone Reference	Cumulative area achieved (ha)																	
RM1	4.1	4.1	20.6	25.2	32.3	32.3	37.2	37.2	142.3	142.3	142.3							
RM2	4.1	4.1	20.6	25.2	32.3	32.3	37.2	37.2	142.3	142.3	142.3							
RM3		4.1	4.1	20.6	25.2	25.2	32.3	32.3	37.2	37.2	37.2	142.3	142.3	142.3	142.3			
RM4		4.1	4.1	20.6	25.2	25.2	32.3	32.3	37.2	37.2	37.2	142.3	142.3	142.3	142.3			
RM5		4.1	4.1	20.6	25.2	25.2	32.3	32.3	37.2	37.2	37.2	142.3	142.3	142.3	142.3			
RM6				4.1	4.1	20.6	20.6	25.2	25.2	25.2	32.3	32.3	32.3	37.2	37.2	142.3	142.3	
RM7						4.1	4.1	4.1	4.1	20.6	20.6	20.6	25.2	25.2	32.3	32.3	37.2	142.3

(RA3) Rehabilitation area 3

Post-mining land uses (PMLU)																	
Rehabilitation area			RA3														
Relevant activities			Spoil dumps														
Total rehabilitation area size (ha)			350.4														
Commencement of first milestone: RM1			10/12/2029														
PMLU			Grazing														
Date area is available	10/12/2029		10/12/2033	10/12/2036		10/12/2039		10/12/2042	10/12/2044								
Cumulative area available (ha)	96.7		164.2	183.8		228.5		291.6	350.4								
Milestone completed by	10/12/2032	10/12/2033	10/12/2036	10/12/2037	10/12/2039	10/12/2041	10/12/2042	10/12/2044	10/12/2045	10/12/2046	10/12/2047	10/12/2049	10/12/2050	10/12/2052	10/12/2055	10/12/2057	10/12/2062
Milestone Reference	Cumulative area achieved (ha)																
RM1	96.7		164.2	183.8	183.8	228.5	228.5	291.6	350.4	350.4	350.4						
RM2	96.7		164.2	183.8	183.8	228.5	228.5	291.6	350.4	350.4	350.4						
RM3		96.7	96.7	164.2	164.2	183.8	183.8	228.5	228.5	291.6	291.6	350.4	350.4	350.4			
RM4		96.7	96.7	164.2	164.2	183.8	183.8	228.5	228.5	291.6	291.6	350.4	350.4	350.4			
RM5		96.7	96.7	164.2	164.2	183.8	183.8	228.5	228.5	291.6	291.6	350.4	350.4	350.4			
RM6					96.7	96.7	164.2	164.2	183.8	183.8	183.8	228.5	228.5	291.6	350.4	350.4	
RM7								96.7	96.7	96.7	164.2	164.2	183.8	183.8	228.5	291.6	350.4

(RA4) Rehabilitation area 4

Post-mining land uses (PMLU)				
Rehabilitation area	RA4			
Relevant activities	Spoil dumps			
Total rehabilitation area size (ha)	6.8			
Commencement of first milestone: RM1	10/12/2032			
PMLU	Native vegetation			
Date area is available	10/12/2032			
Cumulative area available (ha)	6.8	6.8	6.8	6.8
Milestone completed by	10/12/2035	10/12/2040	10/12/2045	10/12/2060
Milestone Reference	Cumulative area achieved (ha)			
RM1	6.8			
RM2	6.8			
RM3		6.8		
RM4		6.8		
RM5		6.8		
RM6			6.8	
RM7				6.8

(RA5) Rehabilitation area 5

Post-mining land uses (PMLU)						
Rehabilitation area	RA5					
Relevant activities	AREA B (N3 North) and MSES Disturbance areas					
Total rehabilitation area size (ha)	13.7					
Commencement of first milestone: RM2	10/12/2026					
PMLU	Native vegetation					
Date area is available	10/12/2026		10/12/2034			
Cumulative area available (ha)	13.5	13.5	13.7	13.7	13.7	13.7
Milestone completed by	10/12/2029	10/12/2034	10/12/2039	10/12/2044	10/12/2049	10/12/2064
Milestone Reference	Cumulative area achieved (ha)					
RM2	13.5	13.5	13.7			
RM4		13.5	13.5	13.7		
RM5		13.5	13.5	13.7		
RM6			13.5	13.5	13.7	
RM7					13.5	13.7

(RA6) Rehabilitation area 6

Post-mining land uses (PMLU)									
Rehabilitation area				RA6					
Relevant activities				Residual voids (N1, N2 and N3 pit lakes)					
Total rehabilitation area size (ha)				57.1					
Commencement of first milestone: RM1				10/12/2045					
PMLU				Water storage (grazing)					
Date area is available	10/12/2045	10/12/2047		10/12/2049					
Cumulative area available (ha)	29.2	53.1	53.1	57.1	57.1	57.1	57.1	57.1	57.1
Milestone completed by	10/12/2047	10/12/2048	10/12/2049	10/12/2050	10/12/2052	10/12/2053	10/12/2055	10/12/2057	10/12/2067
Milestone Reference	Cumulative area achieved (ha)								
RM1	29.2	53.1	53.1	57.1	57.1				
RM2	29.2	53.1	53.1	57.1	57.1				
RM3			29.2	29.2	53.1	57.1			
RM7							29.2	53.1	57.1

(RA7) Rehabilitation area 7

Post-mining land uses (PMLU)			
Rehabilitation area	RA7		
Relevant activities	Infrastructure		
Total rehabilitation area size (ha)	83		
Commencement of first milestone: RM2	10/12/2045		
PMLU	Retained Infrastructure (grazing)		
Date area is available	10/12/2045		
Cumulative area available (ha)	83	83	83
Milestone completed by	10/12/2048	10/12/2053	10/12/2063
Milestone Reference	Cumulative area achieved (ha)		
RM2	83		
RM3		83	
RM7			83

(RA8) Rehabilitation area 8

Post-mining land uses (PMLU)			
Rehabilitation area	RA8		
Relevant activities	Water infrastructure (Sediment/Supply Dams)		
Total rehabilitation area size (ha)	33.7		
Commencement of first milestone: RM1	10/12/2045		
PMLU	Water storage (grazing)		
Date area is available	10/12/2045		
Cumulative area available (ha)	33.7	33.7	33.7
Milestone completed by	10/12/2048	10/12/2053	10/12/2063
Milestone Reference	Cumulative area achieved (ha)		
RM1	33.7		
RM2	33.7		
RM3		33.7	
RM5		33.7	
RM6		33.7	
RM7			33.7

(RA9) Rehabilitation area 9

Post-mining land uses (PMLU)		
Rehabilitation area	RA9	
Relevant activities	Quarry	
Total rehabilitation area size (ha)	8.6	
Commencement of first milestone: RM2	10/12/2045	
PMLU	Retained infrastructure	
Date area is available	10/12/2045	
Cumulative area available (ha)	8.6	8.6
Milestone completed by	10/12/2048	10/12/2058
Milestone Reference	Cumulative area achieved (ha)	
RM2	8.6	
RM7		8.6

Rehabilitation area milestones

Milestone reference	Rehabilitation milestone	Milestone criteria
RM1	Infrastructure decommissioning and removal	1.1 With the exception of any infrastructure to remain as part of the post-mining land use (PMLU) or non-use management area (NUMA), 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 EPML00340213 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 removed. (j) All dams dewatered and desilted and dam liners removed. (k) Watercourse crossings and culverts removed. 1.2 Certification of the following by an AQP that: (a) all exploration drill holes or monitoring bores converted to water bores have been converted in accordance with the Minimum Construction Requirements for Water Bores in Australia (National Uniform Drillers Licensing Committee 2020) or latest edition; and (b) for all other bores (including but not limited to, surface to seam boreholes, exploration bores, water monitoring bores, dewatering bores, ventilation and gas drainage bores) must be: (i) grouted and/or plugged and backfilled to ground level with benign material; and (ii) capped 0.5m below surface. (c) exploration bores are decommissioned in accordance with '<i>Eligibility criteria and standard conditions for exploration and mineral development projects</i>'.

Milestone reference	Rehabilitation milestone	Milestone criteria
RM2	Identification, remediation and removal of contaminated land	2.1 Preliminary, and where potentially contaminating activities or incidents have occurred, intrusive contaminated land investigations completed by a SQP. 2.2 Findings from intrusive contaminated land investigations, when undertaken at specific locations within the relevant RAs are detailed and submitted in a site investigation report and, where required, a Validation Report and / or a draft Site Management Plan, as required under the <i>Environmental Protection Act 1994</i>. 2.3 Contaminated and hazardous material has been either remediated in-situ or removed / transported to an approved landfill for disposal and waste tracking information recorded and submitted. 2.4 Validation testing has been conducted by an SQP to confirm that contaminated and hazardous materials have been remediated or removed / transported to an approved landfill for disposal. 2.5 Contaminated Land Auditor certifies that any residual contamination remains suitable for achieving the PMLU in accordance with relevant legislation.
RM3	Landform development (re-profiling / re-shaping)	All RAs except RA7 3.1 All major earthworks (including reshaping, pushing/trimming) are completed in accordance with the design specifications provided by an AQP, and developed with conditions PRCP12 to PRCP15 (inclusive) where relevant, that achieves an outcome that is safe, erosionally and structurally stable, and appropriate to support the achievement of stable condition. 3.2 As constructed landform achieves geotechnical stability with: (a) a Factor of Safety (FOS) ≥ 1.5, which includes consideration of flood stress; and (b) Batter slopes are $\leq 15\%$. 3.3 All flood protection landforms, where required as determined by condition PRCP22, provide final void immunity up to a 0.1% AEP flood event plus 0.5m at minimum, as confirmed by an AQP. 3.4 Any PAF material that is excavated is stored within an AQP designed and engineered cell, fully encapsulated in compacted non-acid forming material. 3.5 All landforms are shaped to be water shedding. Additional criteria for water storage PMLU (RA6 and RA8) 3.6 Water storage infrastructure must be designed to be stable and safe for native animals and stock access. Criteria for infrastructure PMLU (RA7) 3.7 Retained drains are treated with competent rock or vegetation to design specifications.

Milestone reference	Rehabilitation milestone	Milestone criteria
RM4	Surface preparation (topdressing, contour ripping, soil amelioration)	4.1 Assessment of growth media characteristics and the development of an amelioration and physical treatment plan is completed by an AQP. 4.2 Growth media placement of at least 150mm in areas where topsoil has previously been removed. 4.3 Deep ripping of compacted surfaces, at least 300mm into soil/subsoil profile along contour of slopes. 4.4 Following amelioration and ripping, growth media is test by an AQP to confirm the following parameters are met: (a) pH in the range of 5.5 – 9; (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. 4.5 Where growth media assessment results identify that the characteristics specified in RM4.4 have not been met, growth media has been treated with ameliorants and / or fertilisers as per recommendations made by an AQP. 4.6 The surface and groundwater monitoring is underway (at least one year of sampling undertaken).
RM5	Revegetation	5.1 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. 5.2 Livestock are excluded from newly seeded areas. 5.3 Non-native seed has not been used for the revegetation (except where sterile cover crops were used). Additional criteria for grazing PMLU (RA2 and RA3) 5.4 Seeding and/or tubestock planting completed with a selection of target species and at the seeding rates listed in Attachment 1(a) – Species list and seeding rates for grazing on native and improved pastures, with allowance of: (a) additional native naturally occurring species as recommended by an AQP and certified as suitable to achieve stable condition; and (b) adjusted seeding rates as recommended by an AQP based on existing rehabilitation monitoring results. 5.5 At least four species of 3P native pasture species, two native legumes and two native shade tree species, from Attachment 1(a) – Species list and seeding rates for grazing on native and improved pastures are applied per application area.

Milestone reference	Rehabilitation milestone	Milestone criteria
		Additional criteria for Native vegetation (RA4) 5.6 Seeding and/or tubestock planting completed with a selection of target species and at the seeding rates listed in Attachment 1(b) – Species list and seeding rates for native vegetation (RE 11.9.7), with allowance of: (a) additional native endemic species as recommended by an AQP and certified as suitable to achieve stable condition; and (b) adjusted seeding rates as recommended by an AQP based on existing rehabilitation monitoring results. Additional criteria for Native vegetation (RA5) 5.7 Seeding and/or tubestock planting completed with a selection of target species and at the seeding rates listed in Attachment 1(c) – Species list and seeding rates for native vegetation (RE11.8.11), with allowance of: (a) additional native endemic species as recommended by an AQP and certified as suitable to achieve stable condition; and (b) adjusted seeding rates as recommended by an AQP based on existing rehabilitation monitoring results. Additional criteria for water storage PMLU (RA8) 5.8 Seeding and/or tubestock planting completed on dam margins with a selection of target grass species and at the seeding rates listed in Attachment 1(a) – Species list and seeding rates for grazing on native and improved pastures, with allowance of: (a) additional native naturally occurring species as recommended by an AQP and certified as suitable to achieve stable condition; and (b) adjusted seeding rates as recommended by an AQP based on existing rehabilitation monitoring results.
RM6	Achievement of surface requirements	6.1 An AQP certifies that: (a) Erosion monitoring has been completed and the average erosion rate is $\leq 10\text{t/ha/yr}$. (b) No evidence of erosion classified as ‘moderate’ or ‘severe’ as defined by Attachment 2 – Erosion classification framework. (c) No evidence of scouring, overtopping, sedimentation or destabilisation in or associated with erosion and sediment control and engineered drainage structures. 6.2 Surface water runoff collected from representative areas of rehabilitation when surface flows occur complies with Attachment 5 – Surface water quality limits. Additional criteria for grazing PMLU (RA2 and RA3) 6.3 $\geq 70\%$ total vegetative groundcover (live cover and dry mat cover) with live cover $\geq 50\%$.

Milestone reference	Rehabilitation milestone	Milestone criteria
		6.4 Presence and natural recruitment of species listed in Attachment 1(a) — Species list and seeding rates for grazing on native and improve pastures. 6.5 Average vegetation composition comprises four species of 3P native pasture, two native legumes, and two native shade tree species with a minimum density of 10 trees per hectare. Additional criteria for existing rehabilitation grazing PMLU (RA1) 6.6 ≥70% total vegetative groundcover (live cover and dry mat cover) with live cover ≥50%. 6.7 Average vegetation composition comprises 3P pasture, two native legumes, and two native shade tree species with a minimum density of 10 trees per hectare. Additional criteria for Native Vegetation areas (RE 11.9.7) (RA4) 6.8 A BioCondition assessment completed in accordance with latest version of Queensland Herbarium’s ‘BioCondition Assessment Manual’ determines that the PMLU has reached a BioCondition score of 20/60 as per Attachment 3 – BioCondition Benchmark Criteria. Additional criteria for Native vegetation areas (RE11.8.11) (RA5) 6.9 A BioCondition assessment completed in accordance with latest version of Queensland Herbarium’s ‘BioCondition Assessment Manual’ determines that the PMLU has reached a BioCondition score of >10/30 as per Attachment 3 – BioCondition Benchmark Criteria. Additional criteria for water storage PMLU (RA8) 6.10 Water storage infrastructure must have vegetated banks with a ≥70% total vegetative groundcover.
RM7	Achievement of post-mining land use to a stable condition	All RAs except RA9 7.1 Safety hazards in the rehabilitation area are not significantly different to surrounding unmined landscapes subject to the same land use. 7.2 The final landform is geotechnically stable and achieved a factor of safety (FoS) ≥1.5. 7.3 Vegetation demonstrates recovery after any disturbance. 7.4 Weed cover (invasive species) is less than 5% of total vegetative cover.

Milestone reference	Rehabilitation milestone	Milestone criteria
		7.5 A final landform survey confirms no built structures remain other than those that form part of a landowner's agreement and are consistent with the PMLU. 7.6 Surface water quality monitored monthly during any flow event at, but not limited to, downstream locations specified in Attachment 4 – Surface water monitoring locations, must not exceed the quality limits listed in Attachment 5 – Surface water quality limits, for a minimum of 5 consecutive years immediately prior to the milestone completion date. 7.7 If the surface water quality monitored in RM7.6 exceeds the limits in Attachment 5 – Surface water quality limits, the applicable upstream location must be compared to the downstream location result and quality result measured at a downstream site must be equal to or less than the quality result measured at the applicable upstream site². 7.8 If the downstream water quality results, compared under RM7.7, exceed the relevant upstream water quality result, an AQP must complete and provide to the administering authority within 3 months of receiving the relevant sampling results an assessment of the cause of the exceedance and risk of rehabilitation not achieving a stable condition within the schedule timeframe. Where the assessment concludes: (a) that there is a low risk to achieving a stable condition, then no further action is to be taken; (b) that there is a risk greater than low to achieving a stable condition, then an assessment of potential environmental harm and any changes or rectification actions to rehabilitation activities must be determined and implemented. 7.9 RM7.8 can only be triggered 3 times over the 5 consecutive years immediately prior to the milestone completion date for the rehabilitation area. 7.10 Groundwater quality must be monitored quarterly at, but not limited to, bores specified in Attachment 6 – Groundwater monitoring locations, for all quality characteristics listed in Attachment 7 – Groundwater quality limits. 7.11 Groundwater quality results for bores specified in Attachment 6 – Groundwater monitoring locations must not exceed the limits in Attachment 7 – Groundwater quality limits, for 3 consecutive results, for a minimum of five consecutive years immediately prior to the milestone completion date. 7.12 Groundwater level is monitored quarterly and for a minimum of 10 consecutive years immediately prior to the milestone completion date. 7.13 Permanent fencing for flood protection landforms in place and maintained post closure which excludes stock.

² For pH, the quality result measured at the downstream location must be within the prescribed range. However, where pH at the downstream location is greater-than (>) the highest limit in the range, the pH at the applicable upstream location must be greater-than or equal-to (≥) the downstream location. Conversely, where pH at the downstream location is less than (<) the lowest limit in the range, the upstream pH at the applicable upstream location must be less-than or equal-to (≤) the downstream location.

Milestone reference	Rehabilitation milestone	Milestone criteria
		7.14 All permanent flood protection landforms are safe and stable. Additional criteria for grazing (RA1, RA2 and RA3) 7.15 >50% established and self-sustaining vegetative groundcover of species as listed in Attachment 1(a) – Species list and seeding rates for grazing on native and improved pastures. 7.16 Certification from an AQP that land has: (a) For residual voids and sediment dams, attained land suitability Class 4. (b) For all other rehabilitation areas, attained land suitability Class 3. Additional criteria for Native vegetation areas (RE 11.9.7) (RA4) 7.17 A BioCondition assessment completed in accordance with latest version of Queensland Herbarium's "BioCondition Assessment Manual" determines that the PMLU has reached a BioCondition score of >35/60 as per Attachment 3 – BioCondition Benchmark Criteria. Additional criteria for Native vegetation areas (RE11.8.11) (RA5) 7.18 A BioCondition assessment completed in accordance with latest version of Queensland Herbarium's "BioCondition Assessment Manual" determines that the PMLU has reached a BioCondition score of >20/30 as per Attachment 3 – BioCondition Benchmark Criteria Additional criteria for retained infrastructure PMLU (RA7) 7.19 Infrastructure to be transitioned to a future landholder is: (a) Suitable in type and scale for the PMLU; (b) Verified by an AQP as fit for purpose and; (c) Accepted by signed agreement with the future landholder. 7.20 An AQP certifies that all infrastructure to be retained on-site is safe, stable and will not cause environmental harm.

Milestone reference	Rehabilitation milestone	Milestone criteria
		Additional criteria for water storage PMLU (RA6 and RA8) 7.21 Records of structural integrity of water storage structures, and certification that it is operating in accordance with landform closure design report required by PRCP12. 7.22 Certification by an AQP that all retained water storages are safe and stable including: (a) dam walls; and (b) spillways (if installed). 7.23 Water storages water quality and water levels monitored quarterly. 7.24 Water must be of a suitable quality for livestock ingestion and must not exceed the stock water guidelines (ANZECC 2000), for a minimum of 5 consecutive years immediately prior to the milestone completion date. 7.25 Water balance modelling shows that there is negligible risk of overtopping to the receiving environment. 7.26 Ramps remain traversable for livestock and installing/maintaining pump and pipe infrastructure for water management/use. Criteria for retained quarry (RA9) 7.27 Activities within this RA align with the associated EA (EPPR00210913) 7.28 A competent safety bund constructed and fencing erected to prevent access to the quarry.

Section D – Non-use management areas

(IA1) Improvement area 1

Non-use management area (NUMA)						
Improvement area	IA1					
Relevant activities	NUMAs (V1, N4 and N5) pit lake					
Total size (ha)	46.9					
Commencement of first milestone: MM1	10/12/2027					
NUMA	Non-use management area					
Date area is available	10/12/2027	10/12/2029		10/12/2033		
Cumulative area available (ha)	12.5	25.9		46.9		
Milestone completed by	10/12/2029	10/12/2031	10/12/2033	10/12/2035	10/12/2037	10/12/2042
Milestone Reference	Cumulative area achieved (ha)					
MM1	12.5	12.5	25.9	46.9		
MM2		12.5	12.5	25.9	46.9	
MM3			12.5	12.5	25.9	46.9

(IA2) Improvement area 2

Non-use management area (NUMA)					
Improvement area	IA2				
Relevant activities	Highwalls, end walls & safety bunds				
Total size (ha)	33.3				
Commencement of first milestone: MM1	10/12/2045				
NUMA	Non-use management area				
Date area is available	10/12/2045	10/12/2047	10/12/2049		
Cumulative area available (ha)	11.9	26.2	33.3	33.3	33.3
Milestone completed by	10/12/2047	10/12/2049	10/12/2051	10/12/2053	10/12/2058
Milestone Reference	Cumulative area achieved (ha)				
MM1	11.9	26.2	33.3		
MM2		11.9	26.2	33.3	
MM3			11.9	26.2	33.3

Improvement area milestones

Milestone reference	Management milestone	Milestone criteria
MM1	Achievement of final landform design	1.1 Void slopes must be consistent with: (a) Low wall – maximum slope 65%; (b) High wall – maximum slope 200%. 1.2 Final residual voids are not subject to inundation from floodwaters up to and including the 0.1% AEP. 1.3 The pit walls achieve a FoS ≥ 1.5 within the NUMA extents as determined by an AQP. 1.4 The location of the voids and associated safety bunds does not cause instability or degradation to the land outside the NUMA. 1.5 Residual voids must not overtop.
MM2	Achievement of safety requirements	2.1 Pit wall landforms must: (a) prevent surface or seepage flow of floodwater into the void; (b) be geotechnically stable when floodwater is against the creek-side batter; and (c) not be constructed with dispersive material. 2.2 Competent safety bund or equivalent landform in place to prevent access to the residual void, at the geotechnical set-back distance necessary to achieve FOS ≥ 1.5. 2.3 The safety bund is constructed from material in accordance with engineering requirements. 2.4 Fencing erected, where required to prevent access to the residual void, around the perimeter of the safety bund. 2.5 Safety signage (design in accordance with Australian standard) is erected at 100m intervals along the fence.
MM3	Achievement of sufficient improvement	3.1 The final landform has been constructed in accordance with the final design as determined by an AQP and in alignment with the landform closure design report developed under condition PRCP12. 3.2 The NUMA will not cause environmental harm outside of the relevant tenure boundary. 3.3 The NUMA is safe to humans and wildlife. 3.4 The 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. 3.5 An AQP demonstrates with water quality, water level and modelling data, that the residual void/s act as groundwater sinks post-closure. 3.6 Voids retain flood immunity to a 0.1% AEP event, supported by flood modelling re-run at end of life and calibrated against the final landform. 3.7 Erosion of the landform within the NUMA area will not negatively impact on the stability of any adjacent rehabilitation areas, or their ability to sustain their PMLU. 3.8 Independent AQP certifies achievement of MM3.1 to MM3.7.

Section E – Attachments

Attachment 1(a) – Species list and seeding rates for grazing on native and improved pastures

Scientific name	Common name	Recommended rate (kg/ha)
<i>Bothriochloa ewartiana</i>	Desert Bluegrass	5.0
<i>Heteropogon contortus</i>	Black Speargrass	4.0
<i>Themeda triandra</i>	Kangaroo Grass	4.0
<i>Panicum effusum</i>	Hairy Panic	2.0
<i>Bothriochloa bladhii</i>	Forest Bluegrass	2.0
<i>Digitaria brownii</i>	Cotton Panic	2.0
<i>Panicum decompositum</i>	Native Millet	1.0
<i>Acacia rhodoxylon</i>	Rosewood	1.0
<i>Acacia shirleyi</i>	Lancewood	1.0
<i>Eucalyptus Crebra</i>	Narrow-leaved Ironbark	0.5
<i>Eucalyptus exserta</i>	Queensland Peppermint	0.5
Total minimum application rate		25.0

Alternate species include:

- Queensland Bluegrass (*Dichanthium sericeum*);
- Golden Beardgrass (*Chrysopogon fallax*);
- Curly Windmill Grass (*Enteropogon acicularis*);
- Tall Chloris (*Chloris ventricata*);
- Barbwire Grass (*Cymbopogon refractus*);
- Brigalow Grass (*Paspalidium caespitosum*);
- Bendee (*Acacia catenulate*) and
- Lemon-scented Gum (*Corymbia citruodora*).

Attachment 1(b) Species list and seeding rates for native vegetation (RE 11.9.7)

Scientific name	Common name	Recommended rate (kg/ha)
Tree cover		
<i>Eucalyptus populnea</i>	Poplar Box	2.0
<i>Eucalyptus melanophloia</i>	Silver-leaved Ironbark	2.0
Shrub cover		
<i>Eremophila mitchellii</i>	False Sandalwood	1.0
Groundcover		
<i>Bothriochloa decipiens</i>	Pitted Bluegrass	5.0
<i>Enteropogon acicularis</i>	Curly Windmill-grass	5.0
<i>Aristida ramosa</i>	Purple Wiregrass	5.0
<i>Aristida jerichoensis</i>	Jericho Wiregrass	5.0
<i>Paspalidium criniforme</i>	Fine Panic	1.0
<i>Eragrostis spartinoides</i>	Lovegrass	1.0
<i>Aristida leptopoda</i>	White Speargrass	1.0
<i>Chloris divaricata</i>	Star Grass	1.0
Total minimum application rate		29.0

Attachment 1(c) - Species list and seeding rates for native vegetation (RE11.8.11)

Scientific name	Common name	Recommended rate (kg/ha)
Tree cover		
<i>Eucalyptus orgadophila</i>	Mountain Coolibah	2.0
<i>Acacia salicina</i>	Sally Wattle	2.0
<i>Eucalyptus melanophloia</i>	Silver-leaved Ironbark	2.0
Shrub cover		
<i>Acacia pendula</i>	Weeping Myall	0.5
<i>Cassia brewsteri</i>	Brewster's Cassia	0.5
<i>Corymbia erythropholia</i>	Red Bloodwood	0.5
<i>Corymbia tessellaris</i>	Moreton Bay Ash	0.5
<i>Sesbania cannabina</i>	Yellow Bush Pea	0.5
Groundcover		
<i>Dichanthium sericeum</i>	Queensland Bluegrass	5.0
<i>Dichanthium queenslandicum</i>	King Bluegrass	5.0
<i>Panicum queenslandicum</i>	Yabila	5.0
<i>Bothriochloa bladhii</i>	Forest Bluegrass	5.0
<i>Bothriochloa erianthoides</i>	Satin Top Grass	3.0
<i>Eriochloa crebra</i>	Spring Grass	1.0
<i>Panicum decompositum</i>	Native Millet	1.0
<i>Paspalidium globoideum</i>	Sago Grass	1.0
<i>Bothriochloa ewartiana</i>	Desert Bluegrass	1.0
Total minimum application rate		35.5

Attachment 2 – 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*	15-30 rills/100m*	>30 rills /100m*
Gully erosion	Absent	Absent	Present
Tunnel erosion	Absent	Absent	Present
Mass movement	Absent	Absent	Present

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

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

Attachment 3 – BioCondition Benchmark Criteria

Attribute	Weighting	RE 11.9.7 (RA4)		Weighting	RE 11.8.11 (RA5)	
		RM6	RM7		RM6	RM7
Tree canopy height	5	0	3 ≥25% of benchmark height	N/A	N/A	N/A
Recruitment of canopy species	5	0	3 ≥20% of dominant canopy species	N/A	N/A	N/A
Tree canopy cover (%)	5	3 ≥10% relative to benchmark	5 ≥50% and ≤200% relative to benchmark	N/A	N/A	N/A
Shrub cover (%)	5	3 ≥10% relative to benchmark	5 ≥50% and ≤200% relative to benchmark	N/A	N/A	N/A
Native plant species richness (relevant life-forms)	20	10 ≥25% of benchmarks	12.5 ≥25% of benchmarks (trees ≥90%)	10 ¹	5 ≥25% of benchmarks	7.5 ≥25% of benchmarks (grasses ≥90%)
<i>Non-native plant cover</i>	10	5 <25% non-native cover	5 <25% non-native cover	10	5 <25% non-native cover	5 <25% non-native cover
<i>Native perennial grass cover (%)</i>	5	3 ≥50 and ≤90% of benchmark cover	3 ≥50 and ≤90% of benchmark cover	5	3 ≥50 and ≤90% of benchmark cover	3 ≥50 and ≤90% of benchmark cover
Organic litter cover	5	0	5 ≥50% and ≤200% to benchmark	5	0	5 ≥50% and ≤200% to benchmark
Overall score required	60	>20 Total above 23	>35 Total above 41.5	30	>10 Total above 13	>20 Total above is 20.5

¹ Excluding tree and shrub native plant species richness.

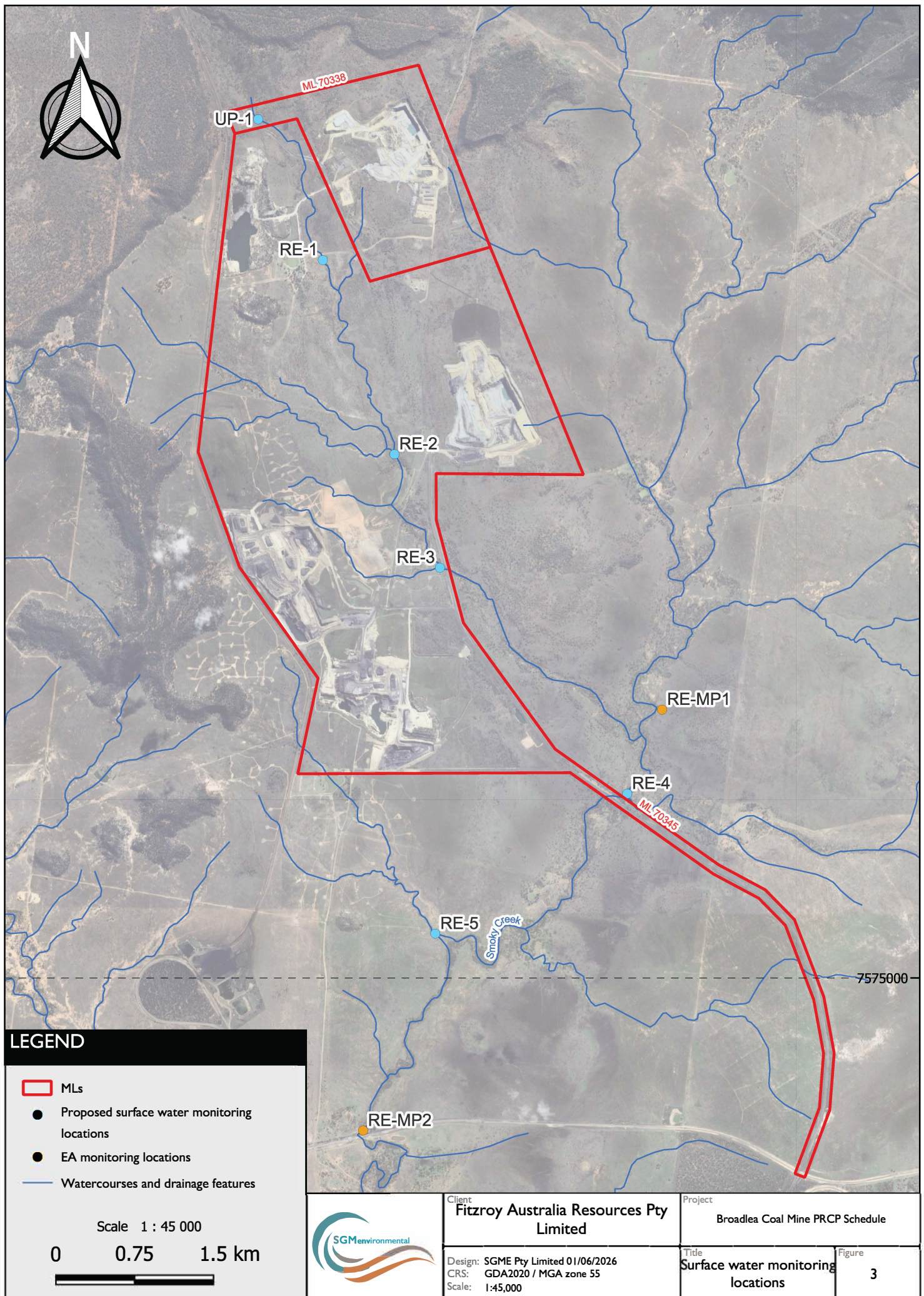
Refer to the BioCondition Assessment Manual for assessment methods and calculating an overall area-weighted BC score for the area of interest: Eyre, T.J., Kelly, A.L., Neldner, V.J., Wilson, B.A., Ferguson, D.J., Laidlaw, M.J. and Franks, A.J. (2015). BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. Version 2.2. Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts, Brisbane.

Attachment 4 – Surface water monitoring locations

Monitoring Locations [^]	Receiving waters location description	Latitude (GDA2020)	Longitude (GDA2020)
<i>Upstream monitoring locations</i>			
UP-1	Smokey Creek tributary headwaters	-21.8514	148.1542
RE-MP1	Smokey Creek above Sediment Dam 3 confluence	-21.90189	148.19186
<i>Downstream monitoring locations</i>			
RE-1	Smokey Creek tributary above N4 and N5 confluence	-21.8635	148.1602
RE-2	Smokey Creek tributary at N3	-21.8801	148.1670
RE-3	Smokey Creek tributary at exit of ML	-21.8898	148.1712
RE-4	Smokey Creek tributary above Smokey Creek Confluence	-21.9091	148.1887
RE-5	Smokey Creek tributary within MDL359	-21.9212	148.1711
RE-MP2	Smokey Creek upstream of Goonyella Branch Railway	-21.93824	148.16460

Table note:

[^]locations illustrated in Figure 3 – **Surface water monitoring locations**.



Attachment 5 – Surface water quality limits

Quality characteristics	Units	Limit	Reference
pH		6.5 – 8.5	Upper Isaac River catchment waters WQO
Electrical conductivity ($\mu\text{S}/\text{cm}$)	$\mu\text{S}/\text{cm}$	200	Site-specific
Turbidity (NTU)	NTU	50	Upper Isaac River catchment waters WQO
Total suspended solids	mg/L	55	Upper Isaac River catchment waters WQO
Sulphate	mg/L	4	Site-specific
Aluminium (Al) dissolved	$\mu\text{g}/\text{L}$	55	ANZG 2018
Arsenic (As) dissolved	$\mu\text{g}/\text{L}$	13	ANZG 2018
Boron (B) dissolved	$\mu\text{g}/\text{L}$	50	Site specific
Cadmium (Cd) dissolved	$\mu\text{g}/\text{L}$	0.2	ANZG 2018
Cobalt (Co) dissolved	$\mu\text{g}/\text{L}$	1.4	ANZG 2018
Copper (Cu) dissolved	$\mu\text{g}/\text{L}$	1.4	ANZG 2018
Chromium (Cr) dissolved	$\mu\text{g}/\text{L}$	1	ANZG 2018
Iron (Fe) dissolved	$\mu\text{g}/\text{L}$	150	Site specific
Manganese (Mn) dissolved	$\mu\text{g}/\text{L}$	1,900	ANZG 2018
Mercury (Hg) dissolved	$\mu\text{g}/\text{L}$	0.06	ANZG 2018
Molybdenum (Mo) dissolved	$\mu\text{g}/\text{L}$	34	ANZG 2018
Lead (Pb) dissolved	$\mu\text{g}/\text{L}$	3.4	ANZG 2018
Selenium (Se) total	$\mu\text{g}/\text{L}$	5	ANZG 2018
Silver (Ag) dissolved	$\mu\text{g}/\text{L}$	0.05	ANZG 2018
Uranium (U) dissolved	$\mu\text{g}/\text{L}$	0.5	ANZG 2018
Vanadium (V) dissolved	$\mu\text{g}/\text{L}$	6	ANZG 2018
Zinc (Zn) dissolved	$\mu\text{g}/\text{L}$	8	ANZG 2018
Total recoverable hydrocarbons (C6-C9)	$\mu\text{g}/\text{L}$	20	For aquatic ecosystem protection (LOR)
Total recoverable hydrocarbons (C10-C36)	$\mu\text{g}/\text{L}$	100	For aquatic ecosystem protection (LOR)
Major ions (Ca, Cl, K, Mg, Na, CO_3 , HCO_3)	mg/L	-	For interpretation purposes
Hardness	mg/L	-	For interpretation purposes

Notes:

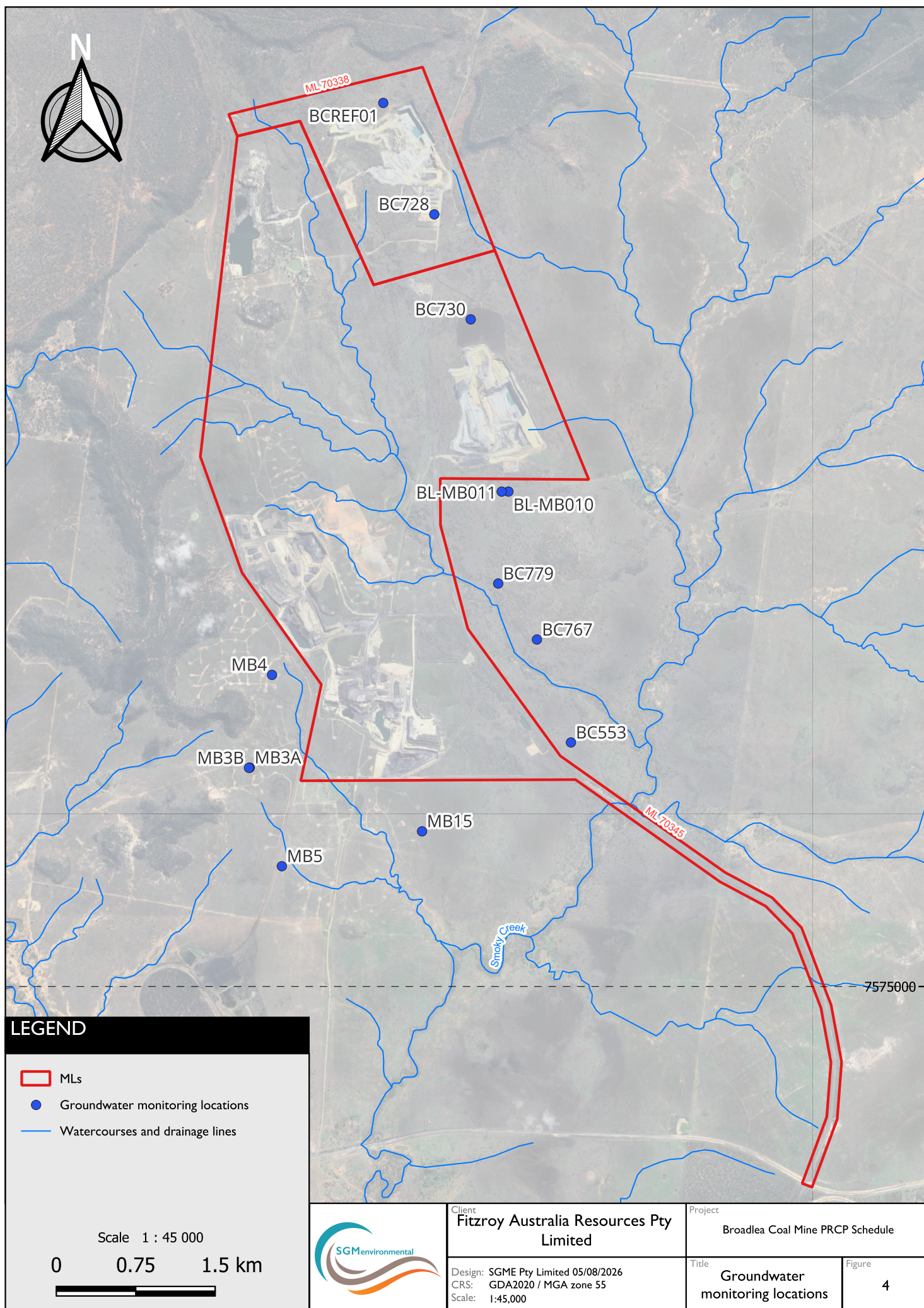
- All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results. Except Selenium
- ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection).
- WQOs - https://environment.qld.gov.au/__data/assets/pdf_file/0032/88817/fitzroy_isaac_river_wqo_290911.pdf

Attachment 6 – Groundwater monitoring locations

Monitoring bore [^]	Hydrogeological unit	Latitude (GDA2020)	Longitude (GDA2020)	Reduced level (mAHD) ¹	Screen interval (mBGL) ³
BCREF01	Tertiary Basalt	-21.8497	148.1654	330.4	17.4 - 53.4
BC553	Tertiary Basalt	-21.9042	148.1830	259.69	19.74 - 34.74
BC728	Tertiary Basalt	-21.85932	148.17007	310.4	52 - 58
BC730	Tertiary Basalt	-21.86819	148.17356	302.24	10 - 24
BC767	Tertiary Basalt	-21.8954	148.1798	286.08	66 - 72
BC779	Tertiary Basalt	-21.89069	148.17624		67 - 73
MB15	Permian underburden	-21.91188	148.16945	261.99	56 - 59
MB3A	Leichhardt coal seam	-21.9065	148.1536	279.55	36.8 - 39.8
MB3B	Vermont coal seam	-21.9065	148.1535	279.61	81.4 - 84.4
MB4	Vermont coal seam	-21.8986	148.1556	284.35	44.5 - 47.5
MB5	Permian (overburden)	-21.9149	148.1566	271.69	52 - 55
BL-MB010	Tertiary Basalt	-21.88284	148.17711	299.19	48.87 - 51.87
BL-MB011	Permian overburden	-21.88285	148.17649	295.121	90.87 - 93.87

Table notes:

- [^]Monitoring locations as illustrated in **Figure 4 - Groundwater monitoring bore locations**.
- ¹ mAHD (metres Australian Height Datum)
- ³ mBGL (metres below ground level)



Attachment 7 – Groundwater quality limits

Table 1 - Groundwater quality limits for all bores*

Quality Characteristics	Units	Bores	Limits	Reference
pH		All bores	6.5 – 8.5	Site-specific
Electrical conductivity	µS/cm	All bores*	2,792	Site-specific
Sulfate	mg/L	All bores*	163	Site specific
Aluminium (Al) dissolved	µg/L	All bores	55	ANZG 2018
Arsenic (As) dissolved	µg/L	All bores	13	ANZG 2018
Boron (B) dissolved	µg/L	All bores	940	ANZG 2018
Cadmium (Cd) dissolved	µg/L	All bores	0.2	ANZG 2018
Cobalt (Co) dissolved	µg/L	All bores	1.4	ANZG 2018
Copper (Cu) dissolved	µg/L	All bores	1.4	ANZG 2018
Chromium (Cr) dissolved	µg/L	All bores	1.0	ANZG 2018
Iron (Fe) dissolved	µg/L	All bores	270	ANZG 2018
Manganese (Mn) dissolved	µg/L	All bores	1,900	ANZG 2018
Mercury (Hg) dissolved	µg/L	All bores	0.06	ANZG 2018
Molybdenum (Mo) dissolved	µg/L	All bores	13	Site-specific
Lead (Pb) dissolved	µg/L	All bores	3.4	ANZG 2018
Selenium (Se) total	µg/L	All bores	5	ANZG 2018
Silver (Ag) dissolved	µg/L	All bores	0.05	ANZG 2018
Uranium (U) dissolved	µg/L	All bores	0.5	ANZG 2018
Vanadium (V) dissolved	µg/L	All bores	6	ANZG 2018
Zinc (Zn) dissolved	µg/L	All bores	8	ANZG 2018
Major ions (Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate)	mg/L	All bores	-	For interpretation purposes
Hardness	mg/L	All bores	-	For interpretation purposes
Water level	mAHD	All bores		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)
- * Unless bore-specific values are provided in table below

Table 2 - Bore-specific Groundwater Quality Limits

Quality Characteristics	BCREF1	BC553	BC728	BC730	BC767	MB3A	MB3B	MB4	MB5
Electrical conductivity (µS/cm)	1,337	2,880	1,420	1,393	2,427	16,540	6,541	9,935	9,227
Sulphate (mg/L)	16	555	44	25	207	675	100	105	535
Iron (Fe) dissolved (µg/L)		921	374		335	2,036	345	483	
Molybdenum (Mo) dissolved (µg/L)					58				105

END OF PRCP SCHEDULE