PRCP schedule

Environmental Protection Act 1994

PRCP schedule P-PRCP-100886122

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-100886122_v1

PRCP schedule holder(s)

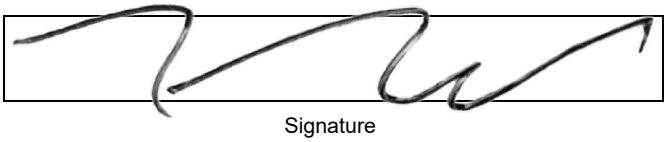
Name(s)	Registered address
BOWEN PCI PTY LTD	Level 7, 167 Eagle Street BRISBANE CITY QLD 4000

Location details

Location(s)
Mining Lease (ML) 80194

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

12 June 2025

Date

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

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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 D - Non-use management areas.
- Section E - 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 All mining disturbance authorised under EA EPML02090614 must have an associated rehabilitation outcome provided in this PRCP Schedule.

PRCP2 For each rehabilitation area, the holder must achieve the rehabilitation milestone criteria (milestone reference):

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

(b) By the milestone completion date specified in this schedule.

PRCP3 Where land becomes 'available for rehabilitation' earlier than the nominated in this schedule, the holder must:

(a) Notify the administering authority in writing within 30 business days of becoming aware of 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

(b) Unless otherwise agreed by the Administering Authority in writing, within 90 business days of becoming aware of 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.

PRCP4 Where an area achieves a rehabilitation or management milestone, the holder must continue to achieve the milestone criteria until the area is progressively certified according to the requirements of the EP Act, or until a surrender covering the area is approved.

PRCP5 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 and include consideration of the outcomes of PRCP monitoring data.

PRCP6 The holder must carry out monitoring of the rehabilitation activities in the rehabilitation areas in accordance with:

(a) the monitoring and maintenance program described in the rehabilitation planning part for the activity; and

(b) any requirement under this schedule; and

(c) as necessary to demonstrate achievement of each rehabilitation milestone or management milestone criteria.

Where there is any inconsistency between this schedule and the rehabilitation planning part the schedule criteria prevail to the extent of the inconsistency.

PRCP7 The holder must make and keep up to date records on:

(a) Achievement and maintenance of achievement of each rehabilitation milestone criteria of this schedule.

(b) Rehabilitation activities and the results of those activities (including where required, but not limited to, actions taken, date, location, methods, data collected, Quality Assurance/Quality Control, photos, waste tracking and disposal records, AQP details and assumptions);

(c) Maintenance of rehabilitation and the results of maintenance activities;

(d) Monitoring of rehabilitation and the results of monitoring;

(e) Details and results of rehabilitation trials;

(f) Designs, drawings, specifications and any similar documents developed in accordance with good professional practice in relation to rehabilitation milestones or milestone criteria;

(g) All documents in relation to the requirements of this schedule, including reports (e.g. site investigation report), statements (e.g. site suitability statement), certifications, assessments, investigations, inspections, audits or any similar documents developed in relation to rehabilitation milestones or milestone criteria;

(h) Landholder agreements;

(i) Details of community consultation in the community consultation register relating to rehabilitation and closure activities.

PRCP8 Records made under **PRCP7** must be kept until the relevant area has been surrendered or cancelled.

PRCP9 Records made under **PRCP7** must be provided to the administering authority in the specified format within 10 business days of a written request.

PRCP10 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.

PRCP11 Disturbance due to exploration activities and minor ancillary activities in areas not authorised to be mined 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 that achieves the relevant PMLU as indicated by **Figure 1 Final Site Design**.

PRCP12 At the re-commencement of coal extraction activities, a pre-construction landform design plan and report must have been developed and certified by an AQP and certified by a third-party independent AQP as being safe, erosionally and structurally stable, and appropriate for the PMLU, with regard to the material properties and local conditions.

PRCP13 The landform design report required by **PRCP12** must demonstrate that the landform will support the achievement of a stable condition

PRCP14 The requirements of **PRCP12** must confirm, through an analysis of future landform stability, that the final landform configuration is able to achieve the criteria of this PRCP schedule across all areas of the landform. The modelling must:

(a) be calibrated against existing performance to support the methodology and parameters adopted in the models; and
(b) demonstrate stability of the final landform.
(c) be undertaken 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'.

PRCP15 The requirements of **PRCP12** must confirm, through an assessment of long-term geotechnical safety and stability, that the final landform configuration is able to achieve stable condition across all areas of the landform. The assessment must:

(a) Develop of a geotechnical model for the entire site;
(b) Consider all credible potential instability mechanisms:
(c) Include a stability analysis using quantitative methods such as Factor of Safety (FOS), Probability of Failure (POF), or Strength Reduction Factor (SRF) including:
    (i) Consider the implication of achieving a FOS of 1.5 on all constructed waste rock landforms;
(d) A consequence assessment to evaluate the potential impacts of slope failure; and
(e) Consider the requirements and limitations, including evaluation of model uncertainty and development of stability acceptance criteria, discussed in of ACARP Project C34028 – *Guidelines for Assessment of Geotechnically Safe and Stable Post-Mining Landforms*.

PRCP16 For all drainage, the design plan and design report required by **PRCP12** must include parameters to mitigate the impacts of high-energy flow (≥2.5m/s) against the constructed landform, to reduce flow energy and ensure the stability of the landform, as determined by the AQP. These include, but are not limited to, graded channel profile parameters, energy dissipation measures (e.g. rock lining) and consideration of surface roughness to ensure effective hydraulic controls.

PRCP17 The design plan and report that has met the requirements of **PRCP12** to **PRCP16** inclusive, and any modelling and modelling results relevant to **PRCP14** and **PRCP15**, must be provided to the administering authority prior to the re-commencement of extraction activities.

PRCP18 The groundwater and water balance model must be maintained with predictions rerun at least every five (5) years commencing **31 December 2028** and within a year of any surrender application.

PRCP19 Where the modelling conducted under **PRCP14, PRCP15** or **PRCP18** indicate a risk to achieving stable condition, an amendment application to this PRCP Schedule must be submitted to the administering authority to address the risk within 3 months of the risk being identified.

END OF CONDITIONS

Section B - Final site design and reference maps

List of figures:

Figure 1. Final Site Design – Bluff Mine

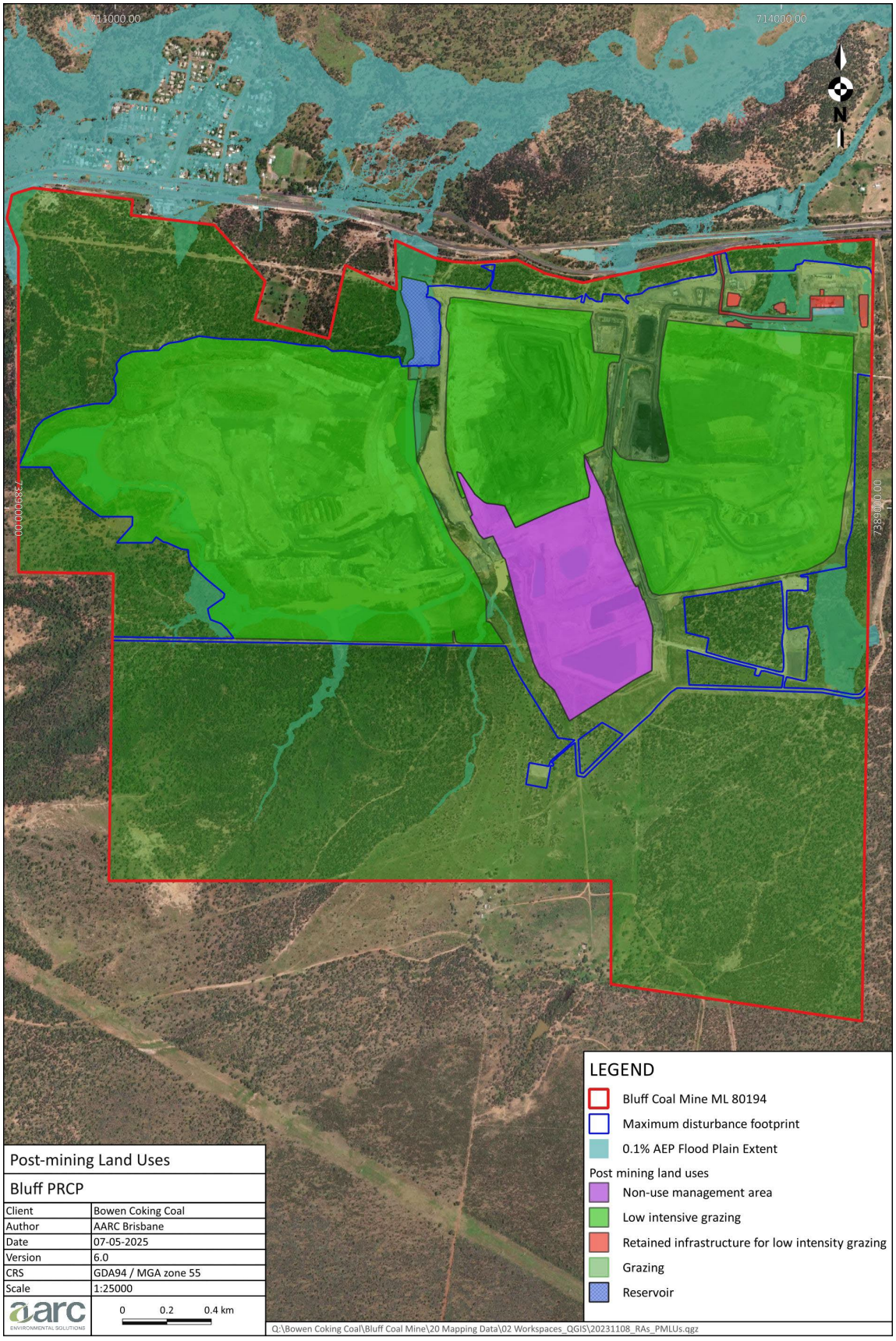
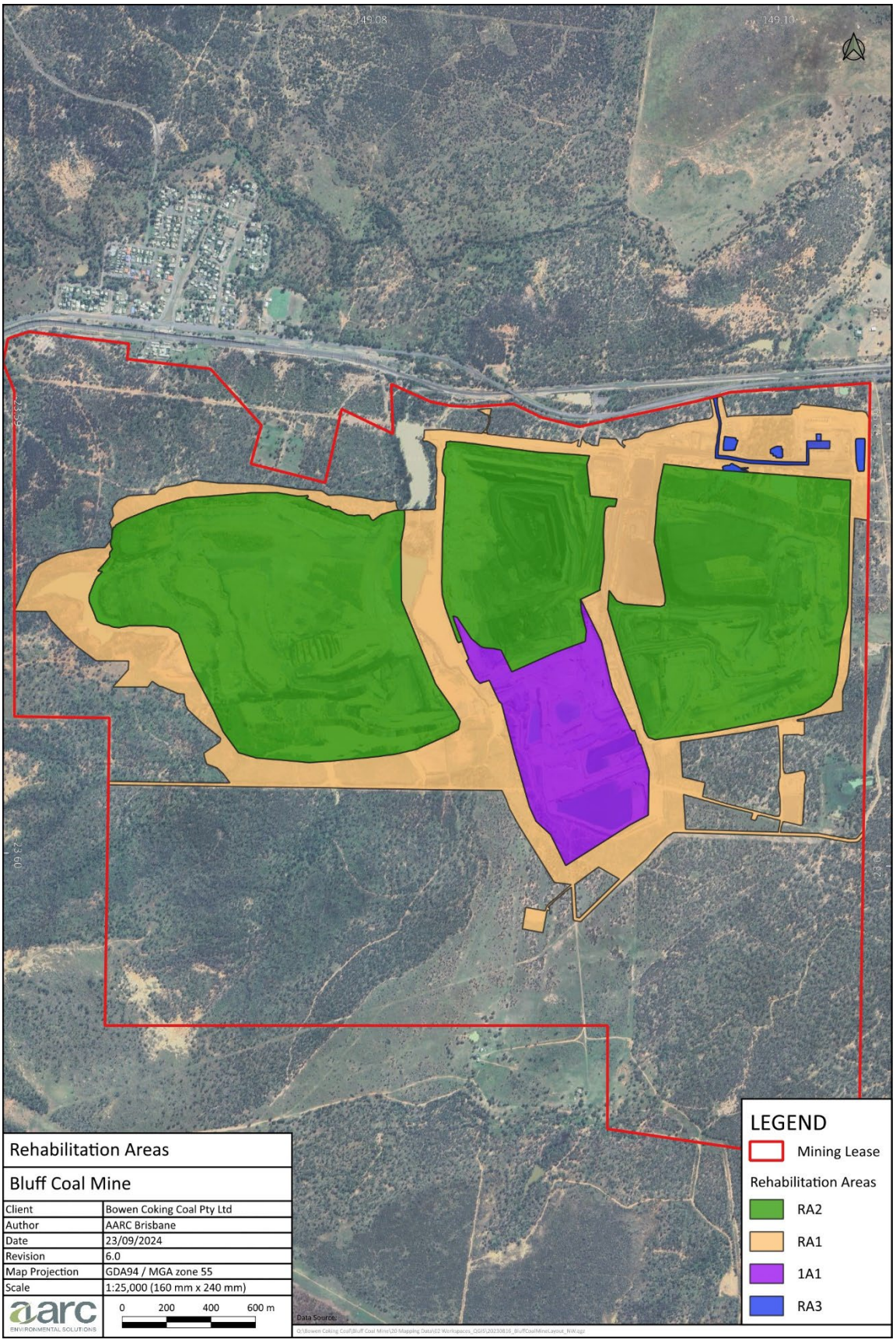


Figure 2. Reference Map



Section C – Post mining land uses

(RA1) Rehabilitation area 1

Post-mining land uses (PMLU)				
Rehabilitation area	RA1			
Relevant activities	Mine Infrastructure Area - offices, workshops dams, stockpiles, roads, general infrastructure			
Total rehabilitation area size (ha)	161			
Commencement of first milestone: RM1	10/12/2041			
PMLU	Low Intensity Grazing			
Date area is available	10/12/40	10/12/45	10/12/50	10/12/55
Cumulative area available (ha)	161	161	161	161
Milestone completed by	10/12/45	10/12/50	10/12/55	10/12/60
Milestone Reference	**Cumulative area achieved (ha)**			
RM1	161			
RM2	161			
RM3	131	161		
RM4		161		
RM5		161		
RM6			161	
RM7				161

(RA2) Rehabilitation area 2

Post-mining land uses (PMLU)						
Rehabilitation area	RA2					
Relevant activities	Overburden Dumps - East Dump, West Dump and Inpit Spoil					
Total rehabilitation area size (ha)	301					
Commencement of first milestone: RM1	10/12/2025					
PMLU	Low Intensity Grazing					
Date area is available	10/12/23	10/12/28	10/12/33	10/12/38	10/12/43	10/12/48
Cumulative area available (ha)	25	25	301	301	301	301
Milestone completed by	10/12/28	10/12/33	10/12/38	10/12/43	10/12/48	10/12/53
Milestone Reference	**Cumulative area achieved (ha)**					
RM1	25		301			
RM2	25		301			
RM3	25			301		
RM4		25		301		
RM5		25		301		
RM6			25		301	
RM7				25		301

(RA2) Rehabilitation area 3

(Post-mining land uses (PMLU)	
Rehabilitation area	RA3
Relevant activities	Retained Infrastructure – pre-existing landholder dams, sediment and MIA dams, Capricorn Highway Turnoff, Access Road to Workshop, Existing Workshop.
Total rehabilitation area size (ha)	4.7
Commencement of first milestone: RM1	10/12/2042
PMLU	Low Intensity Grazing

Date area is available	10/12/40
Cumulative area available (ha)	4.7
Milestone completed by	10/12/45
Milestone Reference	**Cumulative area achieved (ha)**
RM1	4.7
RM2	4.7
RM8	4.7

Rehabilitation area milestones

Milestone reference	Rehabilitation milestone	Milestone criteria
RM1	Infrastructure decommissioning and removal	1.1 With the exception of any infrastructure to remain as part of the PMLU or for the purposes of rehabilitation or where infrastructure is agreed to be retained by the landholder as evidenced by a signed landholder agreement, the following are complete: (a) All services, such as water, electricity and gas, disconnected, terminated 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 that is not part of PMLU requirements removed; (e) All pipelines drained and removed; (f) All waste removed; (g) All surface water drainage infrastructure removed; (h) All drillholes, bores, sediment ponds and sumps decommissioned; (i) All machinery and equipment removed from site; (j) All dams dewatered and desilted (where required); (k) Remove HV and LV power lines; and (l) Demolish and remove above ground tanks.
RM2	Management of contaminated land	2.1 Contaminated land assessment undertaken by a SQP in accordance with the EP Act. If required, a site investigation report including a site management plan and/or validation report prepared and submitted in accordance with the provisions of Chapter 7, Part 8 of the EP Act. 2.2 All contaminated and hazardous materials are either: (a) Remediated in situ; (b) Removed/transported to an approved landfill for disposal and waste tracking information recorded and submitted; or (c) Retained and managed under a site management plan (e.g. any associated and required seepage interception systems). 2.3 A site suitability statement from a SQP confirms the uses or activities for which the land is suitable, align to the approved PMLUs for the site.

RM3	Landform development (re-profiling / re shaping) of land affected by disturbance	3.1 Earthworks completed with an 'As constructed' survey plan showing the surveyed area and finished slopes conform to the designed landform and drainage for each sub-area including the landform design and report required by **PRCP12**. 3.2 All slopes achieve: (a) Mine infrastructure area (**RA1**) - All slopes have been regraded to < 10% (b) Overburden Dumps (**RA2**) - <5.7° and 10%, when measured from the toe of slope to the crest of the slope. 3.3 Prior to reprofiling, chemical testing for sodicity and dispersion potential is to be undertaken to a suitable sampling density as determined by an AQP, for waste rock material that will make up the surface of the landform, where 'surface' is defined as the expected zone as determined through rehabilitation monitoring and AQP recommendation. 3.4 AQP has certified that the landform geometry and drainage characteristics are appropriate to sustain the PMLU. 3.5 Landform shaped to be gently sloping characteristic of the natural landform and reinstates natural drainage lines and certified by an AQP. 3.6 AQP has certified that the 'As constructed' landform achieves long term geotechnical stability with a Factor of Safety (FOS) ≥ 1.2. 3.7 Maximum vertical height is no more than 40 m above the original ground level. 3.8 All landforms are reshaped to be free-draining and water shedding. 3.9 An AQP has certified that environmentally problematic material is appropriately placed and located within the final landform. 3.10 All flood protection landforms provide final void immunity up to 0.1% AEP + 0.5 metres at a minimum, as confirmed by an AQP. 3.11 For Mine infrastructure area (**RA1**), the disturbed natural watercourse bed and banks must be returned to a profile similar to the pre-disturbance condition.

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, to ensure soil is suitable for targeted PMLU and the parameters in **Attachment 1 – Growth media criteria** are met for the root zone of 0–300mm, prior to each rehabilitation event. 4.2 Where the soil health and suitability assessment identify that the criteria in **Attachment 1 – Soil quality criteria** are not met, ameliorants such as gypsum and fertiliser are added to improve growth medium characteristics at the rates recommended by an AQP. 4.3 Following amelioration as per criteria **RM4.1** and **RM4.2**, an AQP certifies that the growth media has met the criteria listed **Attachment 1 – Soil quality criteria**. 4.4 Following amelioration, the growth media characteristics are reviewed and endorsed by an AQP, to ensure growth media is suitable for target vegetation establishment, the PMLU and stability of the landform. 4.5 Records must be kept of ameliorants applied and incorporated into surface, as recommended by an AQP. 4.6 Deep ripping of compacted surfaces, at least 200 mm into soil/subsoil profile along contour of slopes.
RM5	Revegetation (seeding and / or planting)	5.1 Completed seeding of all surfaces in accordance with species list as described in **Attachment 2 – Species list for grazing PMLU**. 5.2 Minimum total seeding rate of 10 kg/ha. 5.3 For a grazing PMLU, the seed mix should include: (a) A minimum of 25% (by weight) native species; (b) Four species of 3P pasture species; (c) Two legumes; and (d) Two shade tree species. 5.4 Records must be kept demonstrating species used, seeding rates, area sown, and germination certificate. 5.5 Stock exclusion fencing has been established to prevent stock from grazing newly seeded areas.

RM6	Achievement of surface requirement	6.1 Total percentage of established, and self-sustaining vegetative groundcover to be ≥70%. 6.2 Species used in revegetation remain present and showing evidence of natural recruitment. Evidence of flora recruitment from rehabilitation monitoring data. 6.3 AQP certifies that: (a) There is no moderate or severe sheet, rill or gully erosion present as defined by **Attachment 3 – Erosion classification framework**; (b) Mass movement and tunnel erosion are absent; (c) All other erosion requiring intervention has been remediated and does not impact achieving the PMLU; and (d) Average erosion rate of 5 t/ha/yr is achieved, with a maximum erosion rate of 10t/ha/yr. 6.4 All contour banks and other temporary erosion and sediment control structures have been removed. 6.5 Proportion of Category 3 restricted invasive plant species[1] and Weeds of National Significance[2] is less than 10% of total vegetative groundcover and an AQP has confirmed that appropriate weed management controls are being implemented. Weed management recommendations to be provided in annual reports. 6.6 Corrective action arising from the routine inspections program have been undertaken to include weed control, erosion repair and livestock management. 6.7 Surface water runoff has been collected across representative areas of rehabilitation when surface flows occur, and it is safe to do so. 6.8 Surface water runoff is non-polluting to receiving waters and complies with criteria presented below: • pH- 6.5 - 8.5 • EC- 310 µS/cm • Sulfate - 10 mg/L

[1] Defined by the *Biosecurity Act 2014*.

[2] Defined by *Invasive Plants and Animals Committee 2016, Australian Weeds Strategy 2017 to 2027*, Australian Government Department of Agriculture and Water Resources, Canberra.

RM7	Achievement of target post-mining land use to safe and sustainable condition (Low Intensity Grazing PMLU)	7.1 Hazard and safety assessment completed by an AQP, demonstrates hazards are consistent with the type and severity of hazards typical of the adjacent equivalent land use. 7.2 Total percentage of established and self-sustaining vegetative groundcover of species as listed in **Attachment 2 – Species list for grazing PMLU** and any 3P pasture species to be ≥70%. 7.3 Notwithstanding **RM7.2**, minimum composition of four species of 3P pasture species, two legumes, two shade tree species and at least two native pasture species, present per hectare (averaged). 7.4 Land suitability assessment by an AQP certifies that land has achieved a post-mine land suitability (DSITI & DNRM 2015) class of 4 or better for low intensity grazing. 7.5 Detailed flood modelling of drainage demonstrates that high-energy flows (greater than 2.5m/s) during a PMF event against the constructed landform) have been mitigated to ensure that the final landform is stable. 7.6 No evidence of scouring or destabilisation in or associated with drainage structures of the landform. 7.7 Final landform survey by an AQP confirms no built structures remain other than those that form part of a landholder agreement. 7.8 Surface water demonstrates non-polluting landform: (a) Surface water runoff is non-polluting to receiving waters and complies with **Attachment 5 – Surface water quality limits**. (b) Surface water quality is monitored monthly during flow at, but not limited to, downstream locations specified in **Attachment 4 – Surface water monitoring locations** must not exceed the limits in **Attachment 5 - Surface water quality limits**, for a minimum period of **5 consecutive years**. (c) Where the surface water quality at the downstream site exceeds the upstream site result as per **RM7.8(a)** and **RM7.8(b)**, an AQP must complete an assessment of the cause of the exceedance and risk of rehabilitation not achieving a stable condition (**RM7**) within the schedule timeframe and: (i) Where there is low risk to achieving a stable condition from the mining tenure (ML80194), then no further action is to be taken; or (ii) Where there is a risk greater than low to achieve a stable condition, then an assessment of potential environment harm and any changes or rectification actions to rehabilitation activities must be determined and implemented.

		(d) The assessment/s under **RM7.8(c)** must be completed and provided to the administering authority within **3 months** of receiving the relevant sampling results. (e) The 5-year timeframe under **RM7.8(b)** is reset by 4 occurrences of **RM7.8(c)(i)** and by a single occurrence of **RM7.8(c)(ii)**. 7.9 Groundwater demonstrate non-polluting landform: (a) Groundwater level is monitored quarterly the locations specified in **Attachment 6 – Groundwater monitoring locations,** and all results must comply with level thresholds outlined in **Attachment 7 – Groundwater level thresholds** for a minimum of **10 consecutive years**. (b) For a minimum of **5 consecutive years**, groundwater quality must be monitored quarterly at but not limited to, the locations specified in **Attachment 6 – Groundwater monitoring locations,** for the quality characteristics listed in **Attachment 8 – Groundwater quality limits.** (c) Groundwater quality results must not exceed the limits in **Attachment 8 – Groundwater quality limits**, for **3 consecutive results within a five-year period.**
RM8	Achievement of target post-mining land use (Retained Infrastructure)	8.1 No infrastructure remaining other than those that form part of the landholder agreement. 8.2 Transfer of ownership agreements in place for all infrastructure to be retained. 8.3 Final landform survey confirms no built structures remain other than those that form part of a landholder agreement. 8.4 All retained water storages achieve geotechnical safety and stability as assessed and approved by an AQP. 8.5 No evidence of erosion on the retained dam banks classified as 'moderate' or 'severe'as defined by **Attachment 3 – Erosion classification framework.** 8.6 Retained dams are safe for stock access and have vegetated banks. 8.7 Water storages monitored quarterly must not exceed the limits in **Attachment 5 – Surface water quality limits**, for a minimum of 5 consecutive years.

Section D – Non-use management areas

(IA1) Improvement area 1

Non-use management area (NUMA)	
Improvement area	IA1
Relevant activities	Residual void
Total size (ha)	48.3
Commencement of first milestone: MM1	10/12/2035
NUMA	Non-use management area (NUMA)
Date area is available	10/12/2035
Cumulative area available (ha)	48.3
Milestone completed by	10/12/2040
Milestone Reference	**Cumulative area achieved (ha)**
MM1	48.3
MM2	48.3
MM3	48.3

Improvement area milestones

Milestone reference	Management milestone	Milestone criteria
MM1	Achievement of final landform design	1.1 Residual void designed with the following slope angles: (a) Highwall = 40° (84%) (b) Lowwall = 33° (65%) 1.2 Highwall 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. 1.3 Certification by an AQP that: (a) void highwalls, and low walls have been constructed as per the design criteria specified in 1.1 and 1.2; and (b) the high-wall, end-wall and low-wall achieve a FoS ≥1.5 within the NUMA extents. 1.4 Predictive modelling undertaken by an AQP, confirming that the voids will remain as a groundwater sink and that there is no risk of contaminant release to surface or ground waters post-mining. 1.5 Residual voids must not overtop. 1.6 Voids are assessed to be geotechnically stable by an AQP. 1.7 Evidence has been included in decommissioning records of elimination of any exposed carbonaceous material that may present a spontaneous combustion risk. 1.8 Any carbonaceous material has been encapsulated within an inert cover.
MM2	Achievement of surface and safety requirements	2.1 Safety assessments have been completed by an AQP for Highwall slopes 2.2 Safety infrastructure established around the void, including: (a) Cattle exclusion zone to prevent cattle accessing the bunding; (b) Adequate bunding in place confirmed to be geotechnically stable by an AQP; (c) Perimeter fencing erected to prevent access to fauna and humans; and (d) Appropriate signage placed every 100 m of the perimeter of the void to clearly identify and convey the purpose (e.g. EP Act 1994 Non-Use Management Area No Entry). All signage has been erected in accordance with relevant guidelines and Australian Standards (AS1319:1994–Safety Signs for the Occupational Environment).

		2.3 Bunding constructed to the following design criteria: (a) Minimum base width of 5 m; (b) A minimum height of 2 m; and (c) Located at least 10 m beyond the area potentially affected by any instability of the pit edge. 2.4 Evidence has shown groundcover between the void crests and bunds as being >70% where groundcover is defined as any cover that assists in controlling erosion and may include live cover. 2.5 Results have shown that, between the void crest and bund, significant active erosion features are not present and that any initial erosion has been stabilised by vegetation cover. 2.6 Successful establishment of adequate drainage control between the Final Residual Void edge and location of bunds has been made to redirect any runoff away from the edge of the void. 2.7 An audit of the hazardous materials register has been conducted to identify the location, use and disposal of potentially hazardous materials during the life of the mine.
MM3	Achievement of sufficient improvement	3.1 Certification from an AQP that: (a) No environmental harm will occur outside of the NUMA. (b) The residual void is safe to humans and livestock (c) The water quality and level in the void will not cause environmental harm to the surrounding environment, as demonstrated by long-term void and groundwater level and quality monitoring. (d) The void acts as a groundwater sink to the receiving groundwater environment. (e) Maximum dimensions will not exceed surface water Level -133mAHD when monitored via LiDAR. (f) The residual void has an adequate protection system to prevent inundation from a probable maximum flood (PMF) event, as confirmed by flood modelling undertaken and certified by an AQP. (g) 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. (h) Voids are assessed to be geotechnically stable, achieving: (i) A modelled FOS of ≥1.5 for the in-situ pit walls before maximum in-pit water level is reached; (ii) A modelled FOS ≥1.5 for the in-situ pit walls after maximum in-pit water level is reached; and (iii) A FOS ≥1.5 for the spoil pit walls above the maximum in-pit water level. 3.2 Monitoring and maintenance of exclusion fences and bunds to be carried out to ensure they remain effective.

Section E – Attachments

Attachment 1 – Growth media criteria

Parameter	Criteria
pH	6 – 8.4
ECe (dS/m)	<2
Total Phosphorus (mg/kg)	≥4
Exchangeable Sodium Percentage [ESP] (%)	<6.0
Total Organic Carbon (%)	>1
Emerson Aggregate Test (EAT)	>3

Attachment 2 – Species list for grazing PMLU

This attachment articulates the list of species which are permitted to be included in the seed mix for Rehabilitation Areas (RAs) to achieve grazing PMLU, and where required for erosional stability of the banks of water storages.

Common name	Scientific name	Classification
Pitted Bluegrass	*Bothriochloa decipiens var decipiens*	Grass
Forest Bluegrass	*Bothriochloa bladhii ssp. bladhii*	Grass
Queensland Bluegrass	*Dichanthium sericeum*	Grass
Bambatsi panic	*Panicum coloratum cvv. makarikariense*	Grass
Many-headed wiregrass	*Aristida caput-medusae*	Grass
Purple Wire Grass	*Aristida ramosa*	Grass
Purple pigeon	*Setaria incrassata*	Grass
Rhodes grass	*Chloris gayana cvv. Callide*	Grass
Rhodes grass	*Chloris gayana cvv. Katambora*	Grass
Bambatsi panic	*Panicum coloratum cvv. makarikariense*	Grass
Purple pigeon	*Setaria incrassata*	Grass
Bisset creeping blue grass	*Bothriochloa insculpta cvv. Bisset*	Grass
Caribbean stylo	*Stylosanthes hamata cvv. Verano or Amiga*	Legume
Roundleaf cassia	*Chamaecrista rotundifolia*	Legume
Caatinga stylo	*Stylosanthes seabrana cvv. caatinga*	Legume
Burgundy bean	*Macroptilium bracteatum*	Legume
Shirohie millet	*Echinochloa esculenta*	Cover crop

Attachment 3 – Erosion classification framework[3]:

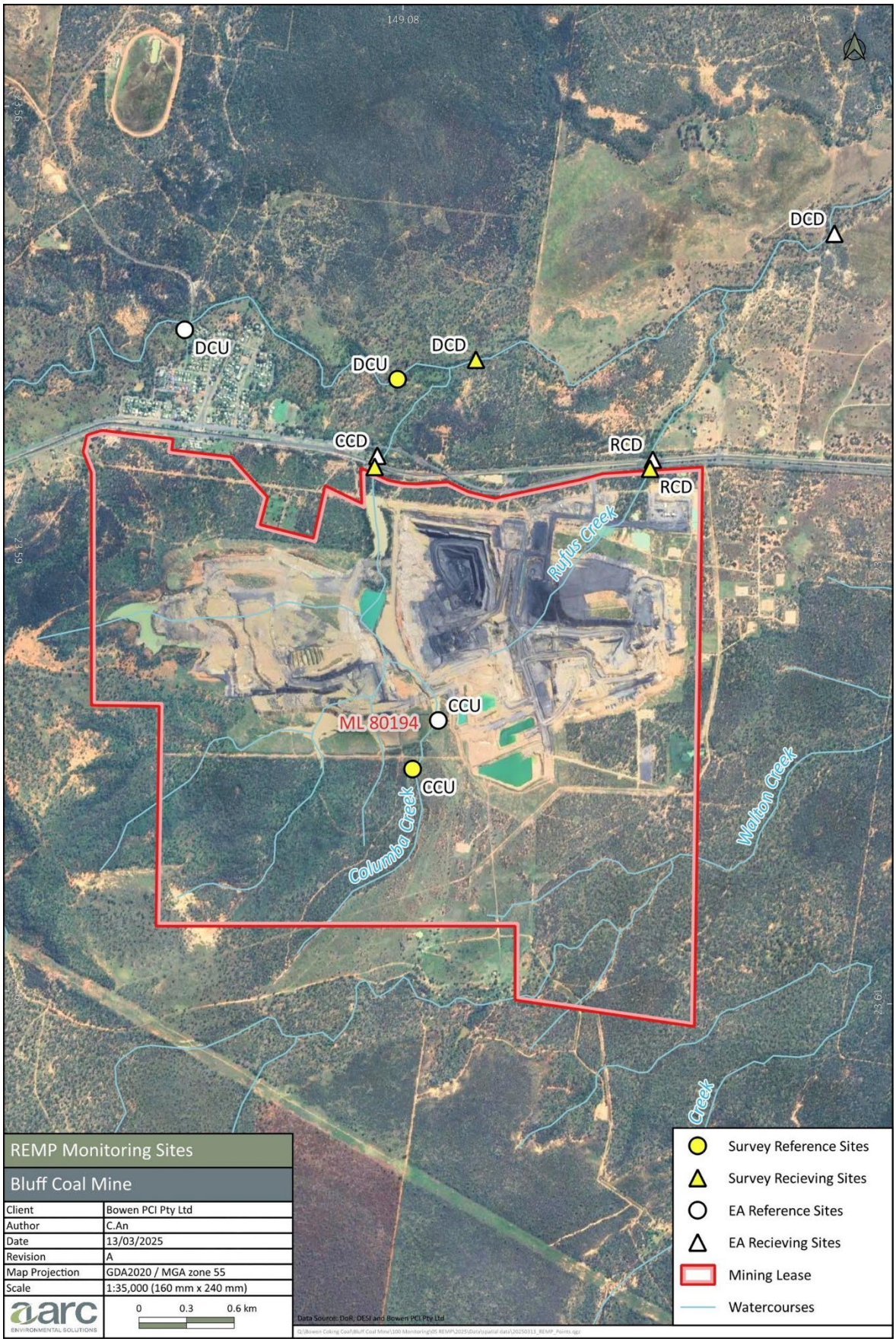
Erosion classification	Minor	Moderate	Severe
Sheet erosion	Shallow soil deposits downslope	Partial exposure of roots; moderate soil deposits downslope, etc	Loss of surface horizon; subsoil exposure; root exposure; substantial soil deposits downslope
Rill erosion	<0.3m deep	<0.3m deep	>0.3m deep
	<15 rills / transect[4]	15 rills-30 rills / transect	>30 rills/transect
Gully erosion	Absent	>0.3m deep	>0.3m deep
		Gullies are linear, continuous, and restricted to primary or minor drainage lines	Gullies are continuous or discontinuous, and either tend to branch away from primary drainage lines and on to foot slopes, or have multiple branches within drainage lines
Tunnel erosion	Absent	Absent	Present
Mass movement	Absent	Absent	Present

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

[4] 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 4 – Surface water monitoring locations

Monitoring Locations	Receiving waters location description	Latitude (GDA2020)	Longitude (GDA2020)
Upstream monitoring locations			
CCU	Columba Creek	-23.603	149.078
DCU	Duckworth Creek	-23.580	149.082
Downstream monitoring locations			
CCD	Columba Creek	-23.585	149.081
DCD	Duckworth Creek	-23.578	149.087
RCD	Rufus Creek	-23.585	149.098


149.08
DCD
DCU
DCU
DCD
CCD
RCD
RCD
Rufus Creek
ML 80194
CCU
CCU
Columba Creek
Walton Creek
Creek
REMP Monitoring Sites
Bluff Coal Mine
Client | Bowen PCI Pty Ltd
Author | C.An
Date | 13/03/2025
Revision | A
Map Projection | GDA2020 / MGA zone 55
Scale | 1:35,000 (160 mm x 240 mm)
0 0.3 0.6 km
Data Source: DoR, DESI and Bowen PCI Pty Ltd
Survey Reference Sites
Survey Recieving Sites
EA Reference Sites
EA Recieving Sites
Mining Lease
Watercourses

Attachment 5 – Surface water quality limits[5]

Quality characteristic (units)	Limit	Comment on limit
pH	6.5-8.5	WQO
Electrical Conductivity (µS/cm)	310	Baseflow WQO
Turbidity (NTU)	50	WQO
Sulfate (mg/L)	10	WQO
Aluminium - dissolved (µg/L)	55	ANZG 2018
Antimony - dissolved (µg/L)	9	ANZG 2018
Arsenic - dissolved (µg/L)	13	ANZG 2018
Boron - dissolved (µg/L)	370	ANZG 2018
Cadmium - dissolved (µg/L)	0.2	ANZG 2018
Cobalt - dissolved (µg/L)	1.4	ANZG 2018
Chromium - dissolved (µg/L)	1	ANZG 2018
Copper - dissolved (µg/L)	1.4	ANZG 2018
Iron - dissolved (µg/L)	300	ANZG 2018
Lead - dissolved (µg/L)	3.4	ANZG 2018
Manganese - dissolved (µg/L)	1900	ANZG 2018
Mercury - dissolved (µg/L)	0.06	ANZG 2018
Molybdenum - dissolved (µg/L)	34	ANZG 2018
Nickel - dissolved (µg/L)	11	ANZG 2018

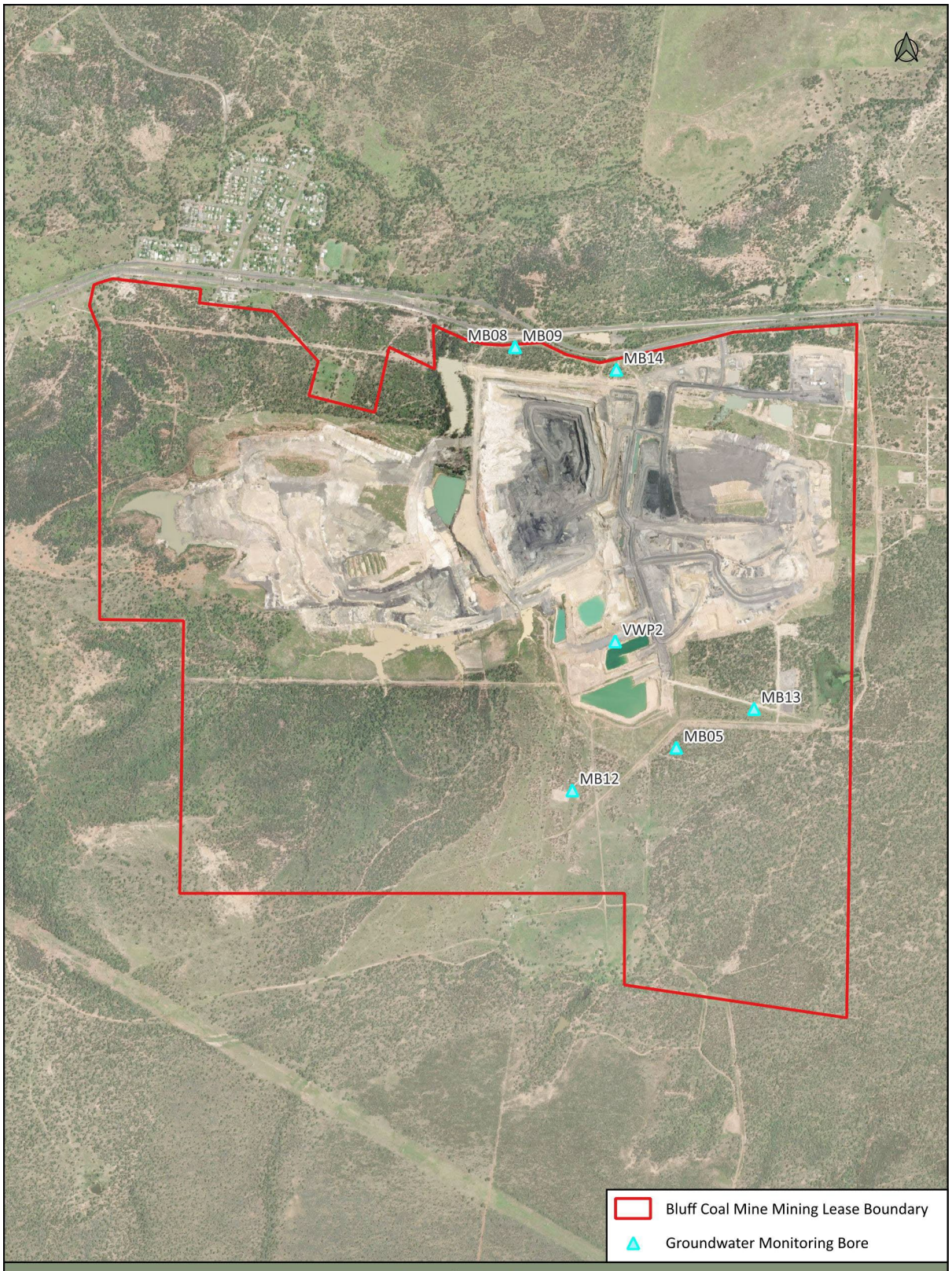
[5] **Notes:**

- 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: ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection).
- WQO: Environmental Protection (Water) Policy 2009: Isaac River Sub-Basin Environmental Values and Water Quality Objectives.

Quality characteristic (units)	Limit	Comment on limit
Selenium - dissolved (µg/L)	5	ANZG 2018
Silver - dissolved (µg/L)	0.05	ANZG 2018
Uranium - dissolved (µg/L)	0.5	ANZG 2018
Vanadium - dissolved (µg/L)	6	ANZG 2018
Zinc - dissolved (µg/L)	8	ANZG 2018
Fluoride (mg/L)	2	Protection of livestock and short-term irrigation guideline
Ammonia (mg/L)	0.9	ANZG 2018
Nitrate (mg/L)	1.1	WQO
Total recoverable hydrocarbons (C6-C9) (µg/L)	20	LOR
Total recoverable hydrocarbons (C10-C36) (µg/L)	100	LOR
Major ions (mg/L) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	For interpretation purposes only	
Hardness (mg/L)	For interpretation purposes only	

Attachment 6 – Groundwater monitoring locations

Monitoring Bore	Hydrogeological Unit	Compliance assessment required		Location	
		Water quality (Y/N)	Water level (Y/N)	Latitude (GDA2020)	Longitude (GDA2020)
MB05	Aries Seam	Y	Y	-23.604	149.092
MB08	Aries Seam	Y	Y	-23.586	149.084
MB09	Regolith	Y	Y	-23.586	149.084
MB12	Overburden	Y	Y	-23.606	149.087
MB13	Aries Seam	Y	Y	-23.602	149.096
MB14	Aries Seam	Y	Y	-23.587	149.089
VWP2	Aries Seam	N	Y	-23.60	149.089



Groundwater Bores

Bluff Coal Mine

Client	Bowen Coking Coal Pty Ltd
Author	E.Moo
Date	26/03/2025
Revision	1
Map Projection	GDA94 / MGA zone 55

0 0.3 0.6 km

Scale: 1:30,000
(160 mm x 240 mm)

Data Source:

Q:\Bowen Coking Coal\Bluff Coal Mine\20 Mapping Data\02 Workspaces_QGIS\20231108_RAs_EM.qgz

arc ENVIRONMENTAL SOLUTIONS

Attachment 7 – Groundwater level thresholds

Monitoring Bore	Hydrogeological Unit	Screen interval (mRP)	Surface RL (mAHD)	Baseline Water Level (mAHD)	Level Threshold – End of mining drawdown (m)	End of Mining Water Level (mAHD)
MB05	Aries Seam	87-93	188.5	31.3	61.9	95.5
MB08	Aries Seam	70.1-73.1	180	27.0	83.2	106.9
MB09	Regolith	37.2-40.2	180.2	25.4[2]	16.4	140.0
MB12	Overburden	51.8-54.8	197.1	31.1[2]	7.4	158.6
MB13	Aries Seam	271.3-274.3	177.8	16.7[2]	25.8	135.3
MB14	Aries Seam	176.2-179.2	177.7	22.8[2]	91.1	63.8
VWP2	Aries Seam	81	152.5	27.0	83.2	98.5

Attachment 8 – Groundwater quality limits

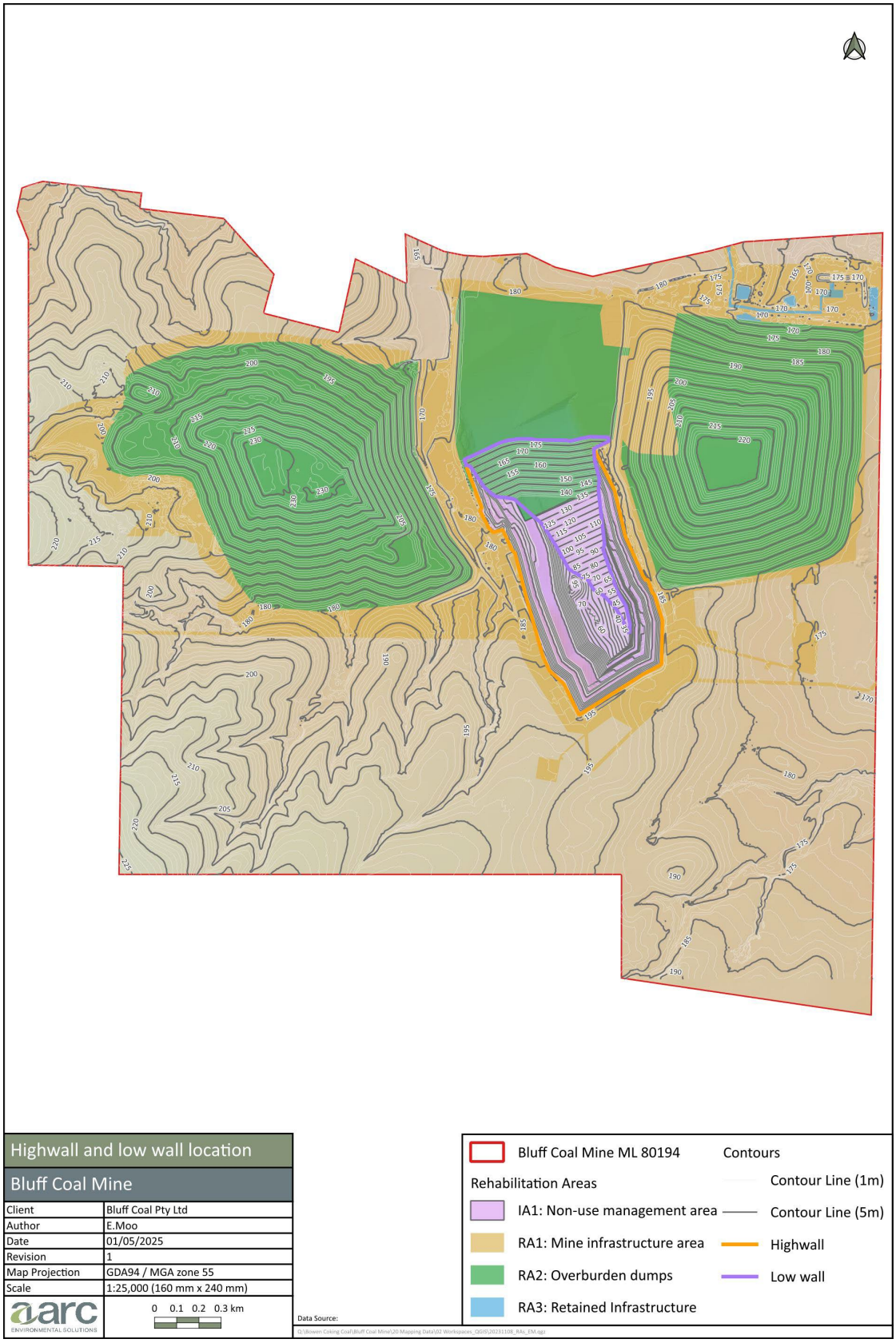
Quality Characteristics (unit)[1]	Limit	Limit[2]	Source[3,4]
Electrical Conductivity	MB05	35,600	Site-specific
Electrical Conductivity (µS/cm)	All bores, except MB05	35,700	Site-specific
pH (pH Units)	All Bores	7.0-8.0	Site-specific
Sulphate as SO_4	MB05	1,250	Site-Specific
Sulphate as SO_4 (mg/L)	All bores, except MB05	840	Site-specific
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
Boron - dissolved (µg/L)	All bores	940	ANZG 2018
Cadmium - dissolved (µg/L)	All bores	0.2	ANZG 2018
Cobalt - dissolved (µg/L)	All bores	1.4	ANZG 2018
Chromium - dissolved (µg/L)	All bores	1	ANZG 2018
Iron – dissolved (µg/L)	All bores	2500	Site-specific
Lead - dissolved (µg/L)	All bores	3.4	ANZG 2018
Manganese - dissolved (µg/L)	All bores	1,900	ANZG 2018
Mercury - dissolved (µg/L)	All bores	0.06	ANZG 2018

Quality Characteristics (unit)[1]	Limit	Limit[2]	Source[3,4]
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
Silver - dissolved (µg/L)	All bores	0.05	ANZG 2018
Uranium - dissolved (µg/L)	All bores	0.5	ANZG 2018
Vanadium - dissolved (µg/L)	All bores	6	ANZG 2018
Zinc - dissolved (µg/L)	All bores	90	Site-specific
Fluoride (mg/L)	All bores	2	Protection of livestock and short-term irrigation guideline
Ammonia (mg/L)	All bores	0.9	ANZG 2018
Nitrate (mg/L)	All bores	1.1	WQO
TPH C6 – C9 Fraction (µg/L)	All bores	20	Typical LOR. Laboratory analytical method must be suitable to achieve LOR
TPH C10 – C36 (Sum of total) (lab reported) (µg/L)	All bores	50	Typical LOR. Laboratory analytical method must be suitable to achieve LOR
Major ions (mg/L) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate	All bores	For interpretation purpose only	

Notes:

1. All metals and metalloids must be measured as 'dissolved' fractions (from analysis of a field filtered sample).
2. Limits apply to dissolved fractions
3. ANZG 2018: for aquatic ecosystem protection, based on Australian and New Zealand Guidelines for Fresh and Marine Water Quality
4. WQO: Environmental Protection (Water) Policy 2009: Isaac River Sub-Basin Environmental Values and Water Quality Objectives.

Attachment 9 – Highwall and Low wall locations relevant to the Management Milestones.



Definitions

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 relative to the subject matter using the relevant protocols, standards, methods or literature.

Activity (EP Regulation) includes that part, if any, of an activity relating to the following—

(a) Preparing a place for the activity before carrying out the activity;

(b) Rehabilitating a place after it has been used for carrying out the activity.

Consistent with means a species presence consistent with those used in the rehabilitation seed mix (**Attachment 2- Species list for grazing PMLU**), does not require all species seeded to be present. However, rehabilitation monitoring results should demonstrate species presence of those which can be expected at the time of monitoring (i.e., wet or dry season) consistent with the rehabilitation seed mix.

Environmentally problematic materials means waste rock or processing materials that include one of the following characteristics: Potentially Acid Forming (PAF), saline, sodic, dispersive, high metal/metalloid concentrations and solubility.

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.

Rehabilitation activity means any activity that the holder is required to carry out in relation to this PRCP schedule.

Stable In relation to land, means landform dimensions are or will be stable within tolerable limits now and in the foreseeable future.

Stability includes consideration of geotechnical stability, settlement and consolidation allowances, bearing capacity (trafficability), erosion resistance and geochemical stability with respect to seepage, leachate and related contaminant generation.

Land is in a stable condition if:

(a) The land is safe and structurally stable, and

(b) There is no environmental harm being caused by anything on or in the land, and

(c) The land can sustain a post mining land use (PMLU).

Suitably qualified and experienced person (SQP) means a suitability qualified person 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.

END OF PRCP SCHEDULE