DRAFT PRCP schedule

Environmental Protection Act 1994

P-PRCP-100758455 Blackwater Mine

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

PRCP schedule: P-PRCP-100758455_V2

PRCP schedule holder(s)

Name(s)	Registered address
Whitehaven Blackwater Pty Ltd	Level 28, 259 George Street SYDNEY NSW 2000
NS Blackwater Pty Limited	Level 14, 115 Pitt Street SYDNEY NSW 2000
JFE Steel Australia (BW) Pty Ltd	Level 28, 12 Creek Street BRISBANE CITY 4000

Location details

Location(s)
Mining Lease (ML) 1759, ML1760, ML1761, ML1762, ML1767, ML1771, ML1772, ML1773, ML1792, ML1800, ML1812, ML1829, ML1860, ML1862, ML1907, ML70091, ML70103, ML70104, ML70139, ML70167, ML70329

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.

	DATE
Signature	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 – 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 For each rehabilitation and improvement area the holder must achieve the rehabilitation or management 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.

PRCP2 Where a land area ≥50 hectares becomes 'available for rehabilitation' earlier than **twelve (12) months** prior to the milestone date nominated in this schedule, the holder must seek an amendment to the schedule under s.215 (1) (b) of the EP Act within **60 business days** of the land being made available.

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

PRCP4 The holder must maintain a risk register that identifies the risks to not achieving:

(a) a stable condition for post-mining land uses (PMLUs); or

(b) sufficient improvement for non-use management areas (NUMAs);

and how the risks are being managed or minimised.

PRCP5 The risk register required under **PRCP4** must be reviewed annually 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.

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

(a) Achievement and ongoing maintenance of each rehabilitation or management milestone criteria relating to this schedule;

(b) Rehabilitation activities and the results of those activities (including but not limited to, actions taken, date, location, methods, data collected, Quality Assurance/Quality Control, photos, waste tracking and disposal records, appropriately qualified person 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) Relevant 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 (to be documented in the community consultation register) relating to rehabilitation and closure activities.

Note: It is acknowledged that for works that pre-date this PRCP schedule (i.e. RA6 and RA7 – Existing Rehabilitation), there may be records that will not have been taken or kept, but all relevant records that do exist will be included.

PRCP8 Records made under **PRCP7** must be kept until the relevant environmental authority 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 Appropriately Qualified Person (AQP) / Suitably Qualified Person (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) must 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**.

Closure landform design report

PRCP12 By **1 July 2028**, the holder must provide to the administering authority an AQP prepared Closure Landform Design Report that incorporates all relevant structures and watercourse diversion designs, and is certified by the independent AQP as being safe, erosionally and structurally stable, appropriate for the applicable PMLU or NUMA, and contains a suitable level of detail with respect to planned execution timing. The Closure Landform Design Report must have regard for the material properties and local conditions as they apply to geotechnical and erosional stability risk.

The Closure Landform Design Report must include performance criteria that demonstrate that the landform will support the achievement of a stable condition.

PRCP13 The currency of the Closure Landform Design Report must be maintained, and the report updated as often as necessary to reflect any material changes to the design that may affect the ability to achieve or sustain a stable landform condition.

Where material changes to the design have been made, the report is to be recertified by an AQP in accordance with **PRCP12**.

PRCP14 By **1 July 2030**, the holder must submit to the administering authority an RPEQ prepared Design Plan for the permanent Sirius Creek watercourse diversion, prepared in accordance with the guideline titled *Works that interfere with water in a watercourse for a resource activity—watercourse diversions authorised under the Water Act 2000 (OSW/2019/4599)* (DNRME 2019), or the latest revision of that guideline.

An RPEQ prepared Design Plan for the remaining permanent diversions must be submitted to the administering authority 24 months prior to construction.

Each Design Plan must align with the PMLU identified in the PRCP schedule, demonstrate that the diversion alignment will achieve a stable condition, and be consistent with the Closure Landform Design Report required by **PRCP12**. The Design Plan must also demonstrate that the diversion will not prevent any flood protection landforms from achieving the outcomes required by **PRCP15, PRCP16** or **RM3.12**.

Flood susceptibility and impact assessment

PRCP15 By **1 July 2031**, the holder must submit to the administering authority a flood susceptibility and impact assessment prepared and certified by an independent AQP. The assessment must:

(a) Update the flood model to include the following:

(i) revised hydrology model parametrisation based on the best available data at the time;

(ii) the final landform topography current at the time, including best available data for features such as diversions, voids, and flood protection landforms; and

(iii) modelling assumptions that do not introduce artificial hydraulic constraints or inhibit realistic flood ingress or connectivity pathways.

(b) Describe potential risks and impacts under extreme flood events up to and including PMF events, including quantifying potential interactions between residual voids, permanent diversions, flood protection landforms, dams, adjacent floodplains and the receiving environment. The assessment must consider backwatering, overtopping, flood ingress pathways and erosion-driven failure mechanisms for the following final landform features:

(i) Diversions: Sirius Creek (as shown in Figure 4)

(ii) Residual voids adjacent to above diversion (i.e. R74) (as shown in Figure 4).

(c) For the Sirius Creek diversion and associated R74 residual void, describe the potential impacts of extreme events up to and including PMF event on flood protection landforms, including:

(i) risks to achieving stable conditions; and

(ii) the potential for serious environmental harm to the receiving environment that is:

(1) irreversible, of a high impact or widespread[1]; and

[1] Section 17(1) of the *Environmental Protection Act 1994*

(2) significantly different to impacts expected on the surrounding environment exposed to the flood.

(d) For the Sirius Creek Diversion and R74 residual void, include a Consequence Category Assessment (CCA) for extreme flood events up to and including PMF event, undertaken in accordance with the *Manual for assessing consequence categories and hydraulic performance of structures* (ESR/2016/1933) (or later version).

(e) Demonstrate how the current or proposed design of flood protection landforms will prevent serious environmental harm to the receiving environment that is significantly different to impacts expected on the surrounding environment exposed to the flood.

PRCP16 By **1 July 2032**, if the flood susceptibility and impact assessment required by **PRCP15** identifies requirements for new flood protection measures or material modifications to existing flood protection landforms, the holder must submit to the administering authority an updated AQP prepared and certified Closure Landform Design Report and Design Plans for applicable permanent watercourse diversions that implement the measures and material modifications identified in **PRCP15** and:

(a) Demonstrate that the updated design achieves flood immunity for the 0.1% AEP event with minimum stability criteria, crest elevations and freeboard requirements clearly defined; and

(b) For the Sirius Creek Diversion and associated R74 residual void, demonstrate that the updated design achieves flood immunity for:

(i) a 0.1% AEP event; or

(ii) if the CCA required by **PRCP15(d)** determines a consequence category of “high” for ‘harm to humans’ or ‘general environmental harm’ for ‘Failure to contain – overtopping’ or ‘Dam break’ failure event scenarios, a design event less likely than a 0.1% AEP event, as determined by an AQP to be appropriately protective, with minimum stability criteria, crest elevations and freeboard requirements clearly defined.

(c) Demonstrate how the Design Plans will achieve the following for the level of risk identified:

(i) Hydraulic stability;

(ii) Erosional stability; and

(iii) Geotechnical stability.

PRCP17 Within 12 months of submitting an AQP prepared Design Plan for a remaining permanent diversion, as required by **PRCP14**, the holder must submit to the administering authority a flood susceptibility and impact assessment according to the requirements of **PRCP15** updated to include changes to the final landform from the Design Plan. If the updated flood susceptibility and impact assessment identifies requirements for new flood protection measures or material modifications to existing flood protection landforms, the holder must at the same time submit to the administering authority an updated AQP prepared and certified Closure Landform Design Report and Design Plan as per the requirements of **PRCP16**.

Flood modelling

PRCP18 By **1 July 2124**, the holder must submit to the administering authority updated flood modelling (up to and including PMF events) incorporating the as-constructed final landform and calibrated against the closure landform design.

Groundwater modelling

PRCP19 An up-to-date closure groundwater and water balance model (calibrated once data becomes available) must be maintained with predictions rerun at least every 5 years, from the date of approval of the PRCP and within one year prior to any surrender application.

PRCP20 By **1 July 2044,** the holder must submit to the administering authority updated long term post-mining prediction numerical modelling for drawdown and groundwater level elevations. The predictive groundwater modelling as per the Australian Groundwater Modelling Guidelines (current version), confirms:

(a) The residual voids will not cause environmental harm through the release of contaminants from the void lakes beyond the tenure boundaries post-closure;

(b) Any seepage from spoil dumps will not cause environmental harm through the release of contaminants beyond the tenure boundaries post-closure; and

(c) Groundwater drawdown will not negatively impact groundwater dependent ecosystems (GDEs) on or surrounding the site.

Progressive Rehabilitation Certification

PRCP21 The requirements for achievement of progressive rehabilitation certification do not include the requirements of **RM7.5-7.8** and **RM8**.

Water quality limits

PRCP22 By **18 May 2029**, the holder must apply to amend the interim surface and groundwater quality trigger levels in **Attachment 7 – Interim Surface Water Quality Trigger Levels** and **Attachment 9 – Interim Groundwater Quality Trigger Levels** with sufficient site-specific supporting data and proposed limits appropriate to detect changes and demonstrate achievement of stable condition.

END OF CONDITIONS

Section B – Definitions

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.
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.
BioCondition	refers to the *BioCondition Assessment Manual* (Eyre, T.J., Kelly, A.L, Neldner, V.J., Wilson, B.A., Ferguson, D.J., Laidlaw, M.J. and Franks, A.J. (2015)) and *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) or later versions thereof.
Contaminants	can be a gas, liquid or solid; or an odour; or an organism (whether alive or dead), including a virus; or energy, including noise, heat, radioactivity and electromagnetic radiation; or a combination of contaminants.
Contaminated Land Auditor	A contaminated land auditor is responsible for auditing the work of the suitably qualified person (SQP) by evaluating and certifying site investigation and validation reports and drafting the site management plans that are submitted for a decision on a land contamination matter.
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.
Groundcover	means anything in contact with the soil surface including live cover, standing dry cover, organic litter (including leaves, hay, woody debris) or rocks.
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, being independent of the PRCP schedule holder, and has not previously provided advice on the matter the subject of the review.

Independently peer reviewed	means an AQP who is a third-party to the PRCP schedule holder and the AQP whose report is being reviewed and substantiated. The peer reviewer's documentation provided must contain sufficient detail to allow for further independent technical review and substantiation, and provide and justify site-specific performance (SMART) criteria, if required.
Potentially acid forming (PAF)	means material with either a Net Acid Producing Potential of greater than 5 kg of H_2SO_4/tonne or a Net Acid Generation oxidation pH of less than 4.5 (pH unit).
Registered Professional Engineer of Queensland (RPEQ)	Means a person who is registered under the *Professional Engineers Act 2002 (Qld)* and is competent in the relevant area of engineering practice for the matters being undertaken as required under the PRCP Schedule.
Rehabilitation activity	means any activity that the holder is required to carry out in relation to this PRCP schedule.
Relevant material	includes: i. Final landform design report, ii. Durability assessment/ report, iii. "As Constructed" report; iv. All monitoring data v. Assessment of monitoring data, vi. All maintenance records; and vii. Modelling and technical assessments.
Relevant structure	Overburden/spoil emplacements, waste rock dumps, tailings storage facilities, residual voids and flood protection landforms.
Rill	A rill is a channel excavated by water, less than 0.3 m deep.
Stable	in relation to land, means landform dimensions are or will be stable within tolerable limits now and in the foreseeable future. Stability includes consideration of environmental context, geotechnical stability, settlement and consolidation allowances, bearing capacity (trafficability), erosion resistance and geochemical stability with respect to seepage, leachate and related contaminant generation.
Stabilised	means one or both of the following conditions apply: no evidence of sediment movement; sides and/or floors of erosion form are revegetated (Australian Soil and Land Survey Field Handbook Fourth Edition).
Stable condition	see section 111A of the *Environmental Protection Act 1994*.

Suitably qualified person (SQP)	for performing a regulatory function under chapter 7, part 8 (Contaminated Land) of the EP Act or another function prescribed under a regulation, means a person who— (a) has qualifications and experience relevant to performing the function; and (b) if a regulation prescribes an organisation for this paragraph—is a member of the organisation.
Vegetative groundcover	Means plants, plant litter, tree leaf litter, twigs and woody debris capable of protecting the soil surface from erosion.
Weed	(a) Category 3 restricted invasive plant species, defined by the *Biosecurity Act 2014*; and (b) Weeds of Natural 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: North Area

Figure 2 – Final Site Design: South Area

Figure 3 – Reference Map: North Area

Figure 4 – Reference Map: South Area

Figure 1 – Final Site Design: North Area

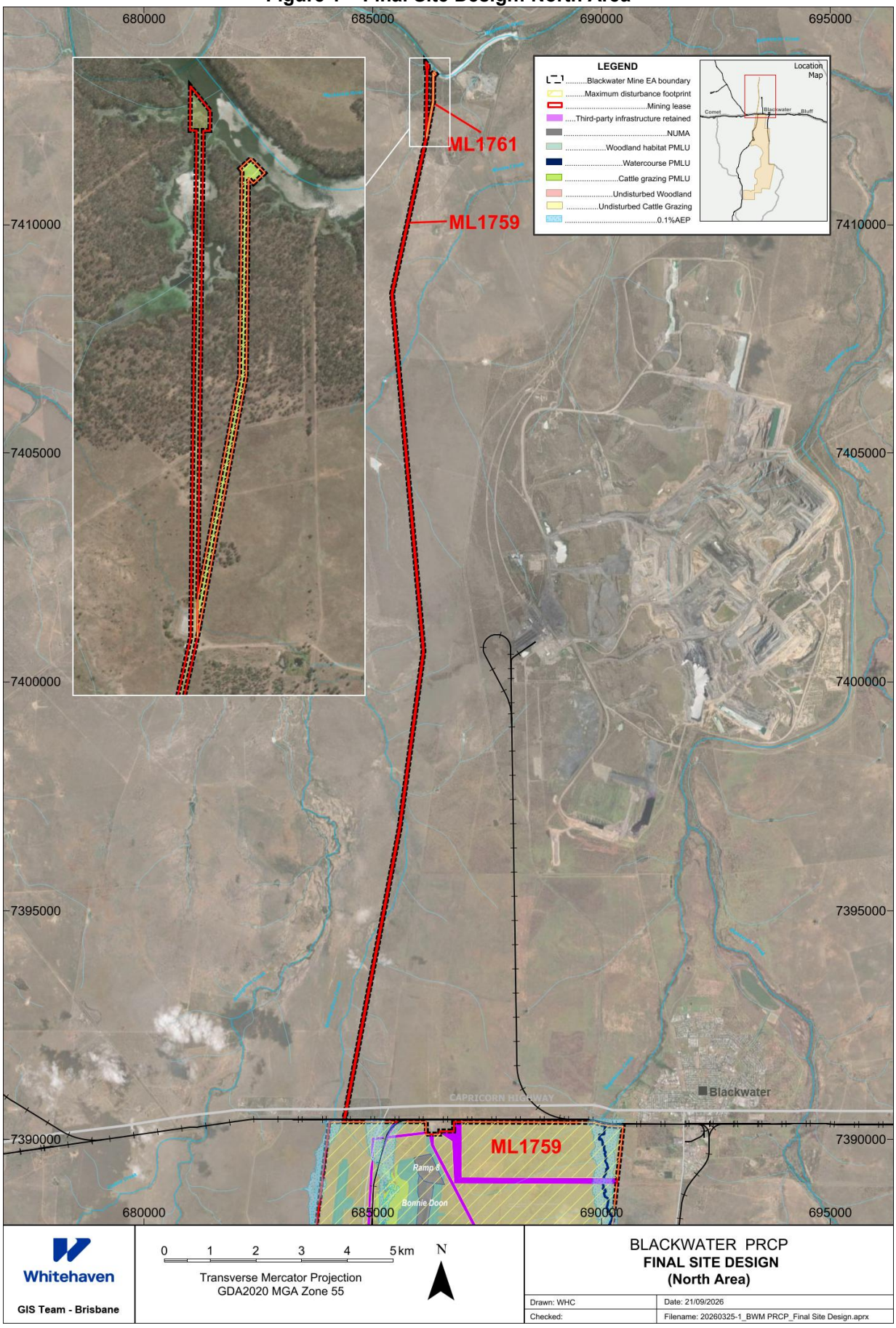


Figure 2 – Final Site Design: South Area

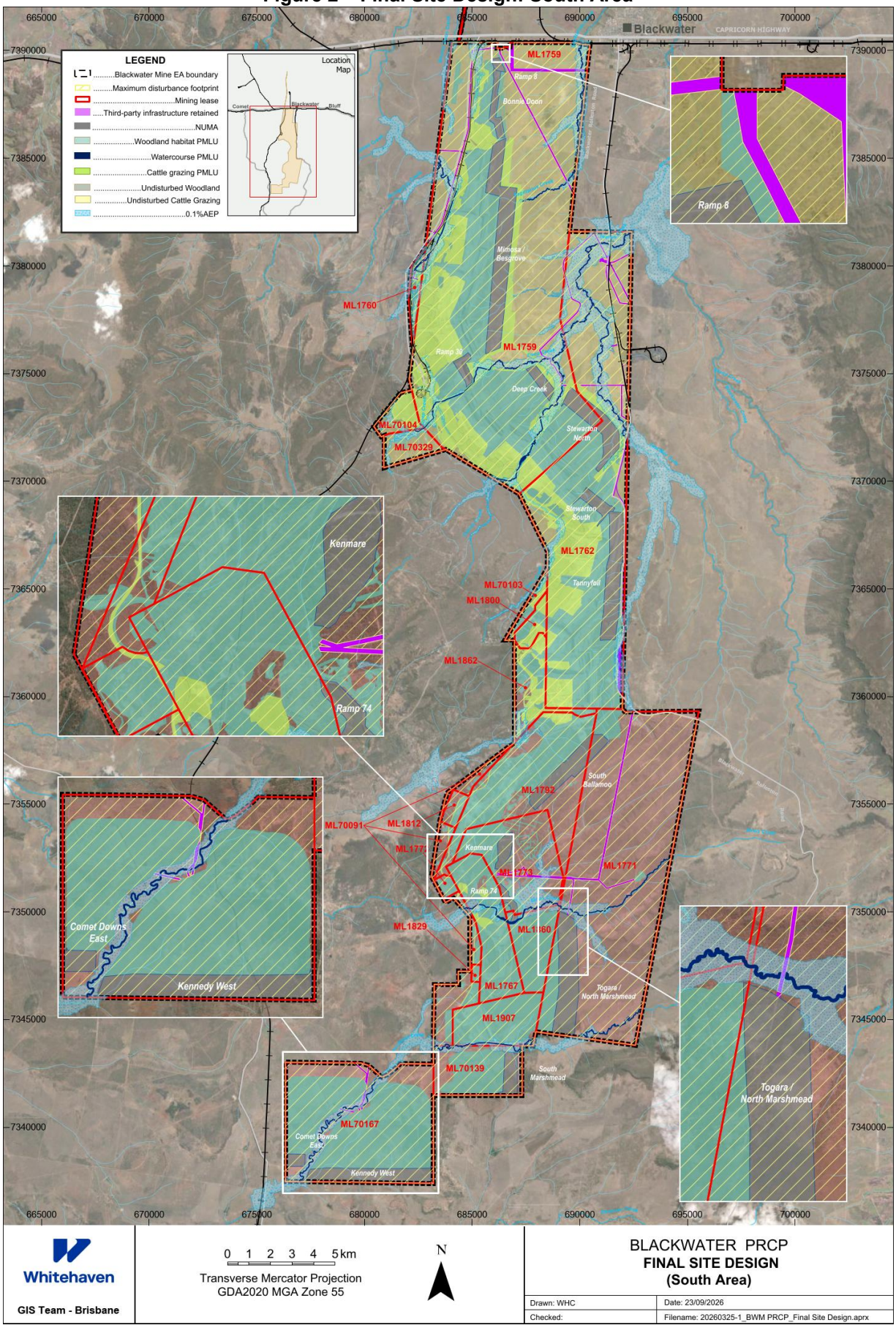


Figure 3 – Reference Map: North Area

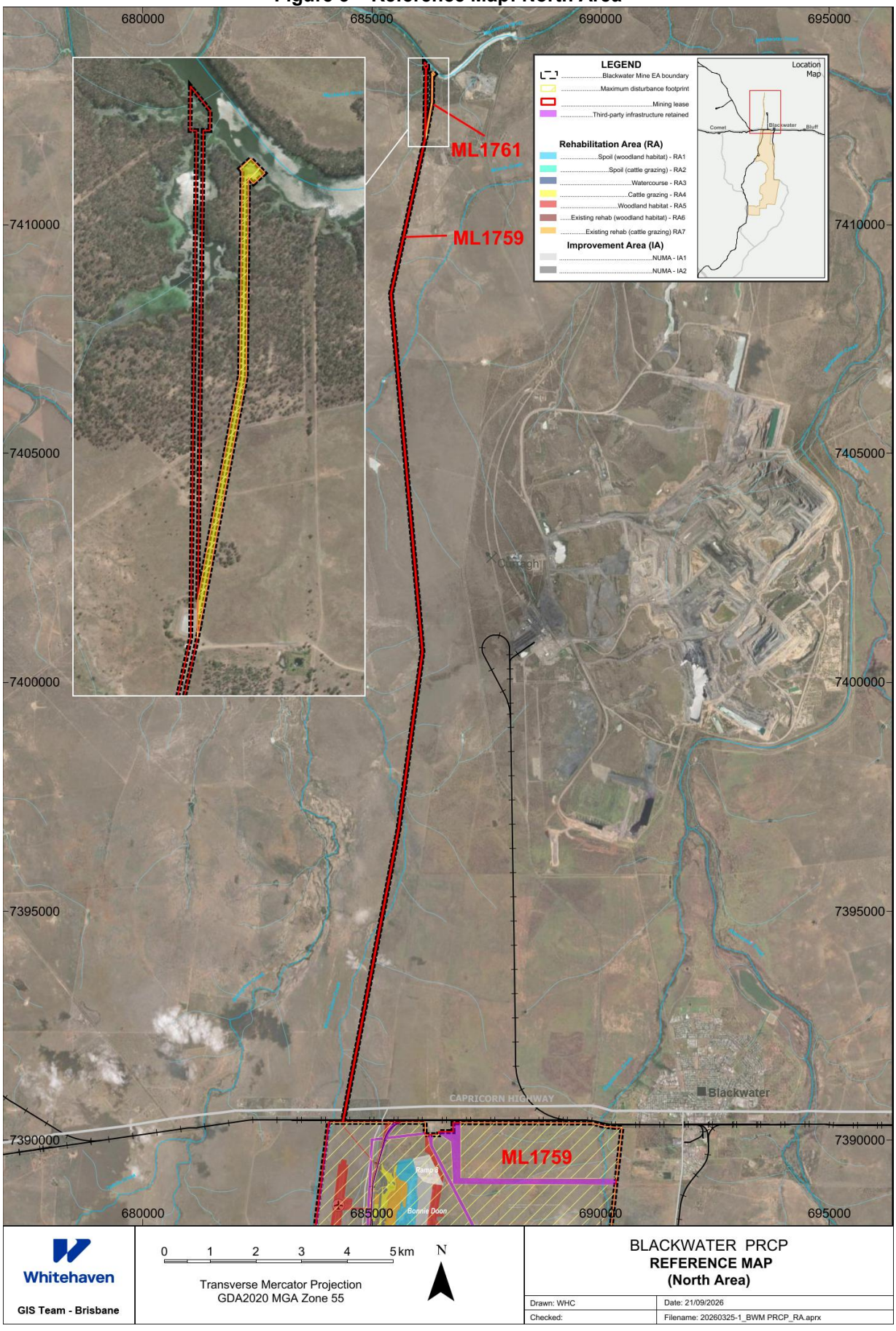
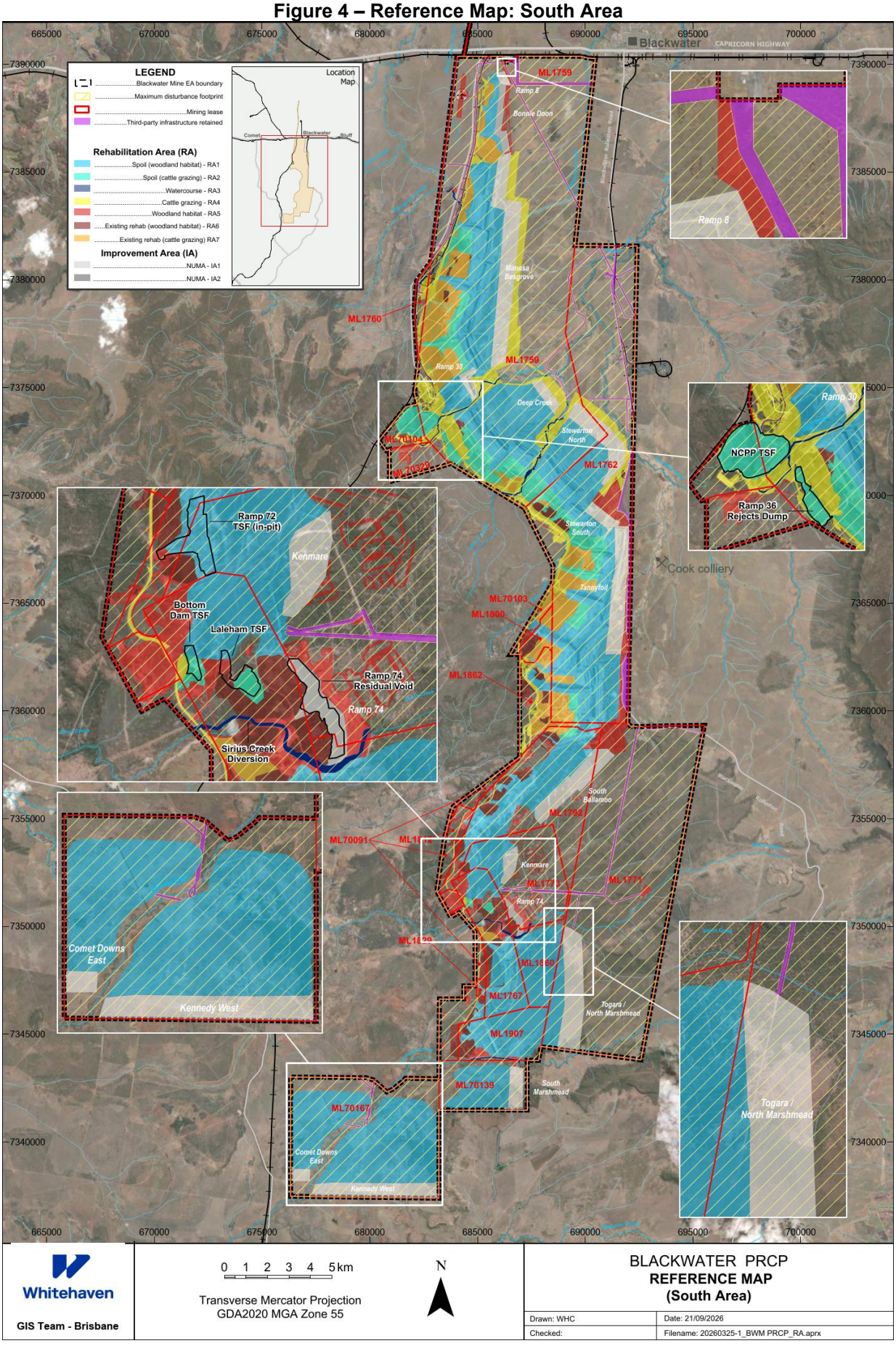


Figure 4 – Reference Map: South Area



Section D – Post mining land uses

(RA1) Rehabilitation area 1

Post-mining land uses (PMLU)																											
Rehabilitation area	RA1																										
Relevant activities	Spoil Dumps and Tailings Storage Facility (TSF) (Ramp 72 TSF)																										
Total rehabilitation area size (ha)	11,897																										
Commencement of first milestone: RM1	01-Jul-2035																										
PMLU	Woodland Habitat																										
Date area is available	1/07/2035	1/07/2040	1/07/2045	1/07/2050	1/07/2055	1/07/2060	1/07/2065	1/07/2070	1/07/2075	1/07/2080	1/07/2085	1/07/2090	1/07/2095	1/07/2100	1/07/2105	1/07/2110	1/07/2115	1/07/2120									
Cumulative area available (ha)	458	1,083	1,628	2,277	2,947	3,614	4,282	5,042	5,927	6,812	7,610	8,380	9,129	9,464	10,134	10,799	11,485	11,897									
Milestone completed by	10/12/2040	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095	10/12/2100	10/12/2105	10/12/2110	10/12/2115	10/12/2120	10/12/2125	10/12/2130	10/12/2135	10/12/2140	10/12/2145	10/12/2150	10/12/2155	10/12/2160		
Milestone Reference	Cumulative area achieved (ha)																										
RM1	458	1,083	1,628	2,277	2,947	3,614	4,282	5,042	5,927	6,812	7,610	8,380	9,129	9,464	10,134	10,799	11,485	11,897									
RM2	458	1,083	1,628	2,277	2,947	3,614	4,282	5,042	5,927	6,812	7,610	8,380	9,129	9,464	10,134	10,799	11,485	11,897									
RM3	458	1,083	1,628	2,277	2,947	3,614	4,282	5,042	5,927	6,812	7,610	8,380	9,129	9,464	10,134	10,799	11,485	11,897									
RM4	208	865	1,410	2,007	2,679	3,347	4,015	4,722	5,573	6,458	7,343	8,031	8,834	9,196	9,866	10,536	11,201	11,897									
RM5		587	1,192	1,737	2,411	3,080	3,748	4,456	5,219	6,104	6,989	7,743	8,555	9,157	9,598	10,268	10,933	11,615	11,897								
RM6			587	1,192	1,737	2,411	3,080	3,748	4,456	5,219	6,104	6,989	7,743	8,555	9,157	9,598	10,268	10,933	11,615	11,897							
RM7							587	1,192	1,737	2,411	3,080	3,748	4,456	5,219	6,104	6,989	7,743	8,555	9,157	9,598	10,268	10,933	11,615	11,897			
RM8																									11,897		

(RA2) Rehabilitation area 2

Post-mining land uses (PMLU)																							
Rehabilitation area	RA2																						
Relevant activities	Spoil Dumps and TSFs/Rejects (NCPP TSF, Laleham TSF, Bottom Dam TSF, R36 Rejects)																						
Total rehabilitation area size (ha)	1,538																						
Commencement of first milestone: RM1	01-Jul-2026																						
PMLU	Cattle Grazing																						
Date area is available	1/07/2026	1/07/2028	1/07/2030	1/07/2032	1/07/2035	1/07/2040	1/07/2045	1/07/2050	1/07/2055	1/07/2060	1/07/2065	1/07/2070	1/07/2075	1/07/2080	1/07/2085	1/07/2090	1/07/2095	1/07/2100					
Cumulative area available (ha)	305	615	866	1,126	1,244	1,244	1,244	1,244	1,244	1,244	1,244	1,298	1,298	1,298	1,298	1,298	1,314	1,538					
Milestone completed by	10/12/2028	10/12/2030	10/12/2032	10/12/2035	10/12/2040	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095	10/12/2100	10/12/2105	10/12/2110	10/12/2115	10/12/2120	10/12/2125	10/12/2160
Milestone Reference	**Cumulative area achieved (ha)**																						
RM1	305	615	866	1,126	1,244	1,244	1,244	1,244	1,244	1,244	1,244	1,298	1,298	1,298	1,298	1,298	1,314	1,538					
RM2	305	615	866	1,126	1,244	1,244	1,244	1,244	1,244	1,244	1,244	1,298	1,298	1,298	1,298	1,298	1,314	1,538					
RM3	305	615	866	1,126	1,244	1,244	1,244	1,244	1,244	1,244	1,244	1,298	1,298	1,298	1,298	1,298	1,314	1,538					
RM4		305	615	978	1,236	1,244	1,244	1,244	1,244	1,244	1,244	1,298	1,298	1,298	1,298	1,298	1,298	1,538					
RM5			305	775	1,196	1,244	1,244	1,244	1,244	1,244	1,244	1,244	1,298	1,298	1,298	1,298	1,298	1,419	1,538				
RM6					775	1,196	1,244	1,244	1,244	1,244	1,244	1,244	1,244	1,298	1,298	1,298	1,298	1,298	1,419	1,538				
RM7							775	1,196	1,244	1,244	1,244	1,244	1,244	1,244	1,244	1,298	1,298	1,298	1,298	1,298	1,419	1,538		
RM8																							1,538

(RA3) Rehabilitation area 3

Post-mining land uses (PMLU)																								
Rehabilitation area	RA3																							
Relevant activities	Creek Diversions and Crossings																							
Total rehabilitation area size (ha)	136																							
Commencement of first milestone: RM1	01-Jul-2032																							
PMLU	Watercourse																							
Date area is available	1/07/2032	1/07/2035	1/07/2040	1/07/2045	1/07/2050	1/07/2055	1/07/2060	1/07/2065	1/07/2070	1/07/2075	1/07/2080	1/07/2085	1/07/2090	1/07/2095	1/07/2100	1/07/2105	1/07/2110								
Cumulative area available (ha)	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	136							
Milestone completed by	10/12/2035	10/12/2040	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095	10/12/2100	10/12/2105	10/12/2110	10/12/2115	10/12/2120	10/12/2125	10/12/2130	10/12/2135	10/12/2140	10/12/2145	10/12/2160	
Milestone Reference	Cumulative area achieved (ha)																							
RM1	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	136							
RM2	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	136							
RM3	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	136							
RM4		28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	136						
RM5		28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	136						
RM6			28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	136					
RM7							28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	136	
RM8																							136	

(RA4) Rehabilitation area 4

Post-mining land uses (PMLU)																									
Rehabilitation area	RA4																								
Relevant activities	Infrastructure areas (CHPP North, coal stockpiles, TLO, Thermal Coal Plant, workshops, administration buildings, laydown yards, roads, mine water dams)																								
Total rehabilitation area size (ha)	2,029																								
Commencement of first milestone: RM1	01-Jul-2030																								
PMLU	Cattle Grazing																								
Date area is available	1/07/2030	1/07/2032	1/07/2035	1/07/2040	1/07/2045	1/07/2050	1/07/2055	1/07/2060	1/07/2065	1/07/2070	1/07/2075	1/07/2080	1/07/2085	1/07/2090	1/07/2095	1/07/2100	1/07/2105	1/07/2110	1/07/2115	1/07/2120	1/07/2125					
Cumulative area available (ha)	23	53	144	269	474	504	547	764	982	1,025	1,025	1,025	1,025	1,050	1,173	1,393	1,613	1,836	1,898	1,964	2,029					
Milestone completed by	10/12/2032	10/12/2035	10/12/2040	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095	10/12/2100	10/12/2105	10/12/2110	10/12/2115	10/12/2120	10/12/2125	10/12/2130	10/12/2135	10/12/2140	10/12/2145	10/12/2150	10/12/2160
Milestone Reference																									
RM1	23	53	144	269	474	504	547	764	982	1,025	1,025	1,025	1,025	1,050	1,173	1,393	1,613	1,836	1,898	1,964	2,029					
RM2	23	53	144	269	474	504	547	764	982	1,025	1,025	1,025	1,025	1,050	1,173	1,393	1,613	1,836	1,898	1,964	2,029					
RM3		23	102	187	392	504	504	677	895	1,018	1,025	1,025	1,025	1,043	1,129	1,305	1,525	1,745	1,898	1,944	2,029					
RM4			80	165	310	504	504	590	808	984	1,025	1,025	1,025	1,025	1,053	1,217	1,437	1,657	1,879	1,898	2,029					
RM5			53	123	228	433	504	504	721	938	1,025	1,025	1,025	1,025	1,047	1,129	1,349	1,569	1,793	1,898	1,955	2,029				
RM6				53	123	228	433	504	504	721	938	1,025	1,025	1,025	1,025	1,047	1,129	1,349	1,569	1,793	1,898	1,955	2,029			
RM7						53	123	228	433	504	504	721	938	1,025	1,025	1,025	1,025	1,047	1,129	1,349	1,569	1,793	1,898	1,955	2,029	
RM8																										2,029

(RA5) Rehabilitation area 5

Post-mining land uses (PMLU)																										
Rehabilitation area	RA5																									
Relevant activities	Infrastructure areas (CHPP South, coal stockpiles, roads, laydown yards, workshops, administration buildings, mine water dams, exploration, historic subsidence areas)																									
Total rehabilitation area size (ha)	1,355																									
Commencement of first milestone: RM1	01-Jul-2030																									
PMLU	Woodland Habitat																									
Date area is available	1/07/2030	1/07/2032	1/07/2035	1/07/2040	1/07/2045	1/07/2050	1/07/2055	1/07/2060	1/07/2065	1/07/2070	1/07/2075	1/07/2080	1/07/2085	1/07/2090	1/07/2095	1/07/2100	1/07/2105	1/07/2110	1/07/2115	1/07/2120							
Cumulative area available (ha)	35	169	255	255	255	438	610	610	610	637	637	637	724	818	818	818	818	818	955	1,355							
Milestone completed by	10/12/2032	10/12/2035	10/12/2040	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095	10/12/2100	10/12/2105	10/12/2110	10/12/2115	10/12/2120	10/12/2125	10/12/2130	10/12/2135	10/12/2140	10/12/2145	10/12/2150	10/12/2155	10/12/2160
Milestone Reference	**Cumulative area achieved (ha)**																									
RM1	35	169	255	255	255	438	610	610	610	637	637	637	724	818	818	818	818	818	955	1,355							
RM2	35	169	255	255	255	438	610	610	610	637	637	637	724	818	818	818	818	818	955	1,355							
RM3		72	255	255	255	352	567	610	610	610	637	637	637	818	818	818	818	818	885	1,022	1,355						
RM4			224	255	255	266	481	610	610	610	637	637	637	768	818	818	818	818	818	1,002	1,355						
RM5			107	255	255	255	395	610	610	610	637	637	637	681	818	818	818	818	818	928	1,187	1,355					
RM6				107	255	255	255	395	610	610	610	637	637	637	681	818	818	818	818	818	928	1,187	1,355				
RM7								107	255	255	255	395	610	610	610	637	637	637	681	818	818	818	818	818	928	1,187	1,355
RM8																											1,355

(RA6) Rehabilitation area 6

Post-mining land uses (PMLU)										
Rehabilitation area	RA6									
Relevant activities	Existing Rehabilitation									
Total rehabilitation area size (ha)	944									
Commencement of first milestone: RM6	01-Jul-2026									
PMLU	Woodland Habitat									
Date area is available	1/07/2026	1/07/2028	1/07/2030	1/07/2032	1/07/2035					
Cumulative area available (ha)	575	575	633	727	944					
Milestone completed by	10/12/2028	10/12/2030	10/12/2032	10/12/2035	10/12/2040	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2160
Milestone Reference	**Cumulative area achieved (ha)**									
RM6	575	575	633	727	944					
RM7	45	45	45	45	45	45	575	727	944	
RM8										944

(RA7) Rehabilitation area 7

Post-mining land uses (PMLU)								
Rehabilitation area	RA7							
Relevant activities	Existing Rehabilitation							
Total rehabilitation area size (ha)	1,910							
Commencement of first milestone: RM6	01-Jul-2026							
PMLU	Cattle Grazing							
Date area is available	1/07/2026							
Cumulative area available (ha)	854							
Milestone completed by	10/12/2028	10/12/2030	10/12/2032	10/12/2035	10/12/2040	10/12/2045	10/12/2050	10/12/2160
Milestone Reference	**Cumulative area achieved (ha)**							
RM6	854	854	1,489	1,800	1,910			
RM7					854	1,800	1,910	
RM8								1,910

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 where infrastructure is agreed to be retained by the landholder as evidenced by a signed landholder agreement, the following are to be completed: (a) **Services and utilities:** Disconnect and remove all above and below ground services (water, electricity, gas etc) and ensure no service infrastructure remains within 0.5m of the final landform surface. All pipelines are to be drained. (b) **Buildings and structures:** Dismantle and remove all buildings, fencing, associated foundations and related materials to within 0.5m of the final landform surface. Dispose of such materials on-site only if they are a type of waste authorised under Environmental Authority EPML00717813. All other materials must be transported for lawful disposal off-site. (c) **Hardstands and roads:** Remove all hardstand, concrete, roads and road construction materials (bitumen, blue metal, aggregate etc) to within 0.5m of the final landform surface. Dispose of such materials on-site only if they are a type of waste authorised under Environmental Authority EPML00717813. All other materials must be transported for lawful disposal off-site. (d) **Drainage and water infrastructure:** All dams dewatered and desilted, and dam liners removed. Remove all surface water drainage infrastructure (including watercourse crossings and culverts) that do not form part of a watercourse or riparian ecosystem PMLU, or form part of a non-use management area (NUMA). (e) **Earthworks and other features:** Decommission all drillholes, bores (not used for the purposes of monitoring as defined in this schedule), sediment ponds and sumps. (f) **Machinery and equipment:** Remove all plant and equipment not required for rehabilitation works from site. (g) **Waste materials:** Remove all waste not authorised for on-site disposal under Environmental Authority EPML00717813.

Milestone reference	Rehabilitation milestone	Milestone criteria
		(h) **Historical underground areas:** Underground related surface and access-point infrastructure to be removed in accordance with AQP recommendations. Hardstand, concrete and structural components (for example shaft collars, steel arches and lagging bords) are to be removed if they occur within 0.5m of the final landform surface, or as prescribed by an AQP. **1.2** Independent AQP certifies achievement of **RM1.1**.
RM2	Identification, remediation and removal of contaminated land	**2.1** Contaminated land investigations (investigation, remediation and validation) completed in accordance with the *Environmental Protection Act 1994*, including a site investigation report, and where required, a Validation Report and/or a draft Site Management Plan, except for waste disposed of as authorised under Environmental Authority EPML00717813. **2.2** Contaminated and hazardous material is either remediated in-situ or disposed of on-site to the extent authorised under Environmental Authority EPML00717813, or removed and disposed of to an approved landfill, with waste tracking information recorded and submitted. **2.3** Contaminated Land Auditor certifies that any contamination other than that authorised in **RM2.1** will not have a material impact on the achievement of the relevant PMLU.
RM3	Landform development (re-profiling / reshaping)	**Criteria applicable to all RAs:** **3.1** Relevant structures and permanent diversions are developed and/or reshaped such that they are consistent with the Closure Landform Design Report (**PRCP12**) and Design Plan (**PRCP14**), and the remainder of disturbed land is reshaped appropriately as determined by an AQP. **3.2** All major earthworks (including reshaping, pushing, trimming etc) are undertaken in accordance with the Closure Landform Design Report and/or area-specific detailed design prepared and certified by an AQP. **3.3** Where an area-specific detailed design is constructed per **RM3.2**, an “As-Constructed Report” for the area is required which informs of the variations from the Closure Landform Design Report, and certifies that such variations will not adversely affect the achievement of a safe and stable landform condition.

Milestone reference	Rehabilitation milestone	Milestone criteria
		3.4 Erosion and sediment controls must be installed in accordance with the AQP certified Closure Landform Design Report for relevant structures (**PRCP12**), or AQP certified alternative designs (**RM3.2**), and/or permanent watercourse diversion Design Plan (**PRCP14**). **3.5** Constructed landforms achieve geotechnical stability with a Factor of Safety (FOS) ≥ 1.5 at the safety bund unless an alternative is justified by an AQP. **Additional PMLU specific landform criteria:** **3.6** For the Cattle Grazing PMLU, landforms are reshaped with: (a) at least 70% of slopes ≤20% gradient. (b) at least 50% of slopes ≤15% gradient; and (c) no slopes ≥25% gradient. **3.7** For the Woodland Habitat PMLU, landforms reshaped to ≤30% gradient. **3.8** For the Watercourse PMLU: (a) 'As constructed' plans prepared by an AQP demonstrate that diversions are constructed in accordance with the engineered design plan developed in accordance with condition **PRCP14**. (b) Disturbed natural watercourse bed and banks are returned to a profile similar to the pre-disturbance condition, or if unknown, similar to condition of comparable regional watercourses as informed by an AQP. **Additional criteria for tailings storage facilities (TSFs) and reject dumps:** **3.9** All tailings and rejects are to be encapsulated by at least 1m of consolidated non-acid forming (NAF) material, unless an alternative is recommended by an AQP. **3.10** Any detailed cover system designs for TSFs and reject dumps prepared by an AQP must consider the physicochemical properties of the waste material being stored, the availability of suitable cover materials and the specific location, hydrogeology and geometry of each structure. In the absence of an AQP designed cover system, the following concept design criteria apply:

Milestone reference	Rehabilitation milestone	Milestone criteria
		(a) NCPP TSF: 1m minimum thickness layer of weathered Permian and/or Tertiary spoil followed by 2m minimum thickness of more permeable material. (b) Ramp 72 TSF: 1.5m thickness of gravelly spoil or coarse rejects over exposed tailings. Spoil, 3.5m thick at the top of the ramp, 5m thick over coarse rejects over the remainder of the TSF, dumped and spread in such a way that dispersive spoil with high fines content is not placed in the outer 1m of the landform. (c) Laleham TSF, Bottom TSFs and R36 Rejects Dump: 5m thickness of spoil dumped and spread in such a way that dispersive spoil with high fines content is not placed in the outer 1m of the landform. **3.11** The final cover surface of TSFs and reject dumps are water shedding and free from surface ponding, unless an AQP certified alternative design is adopted as described in **RM3.10** **3.12** The flood protection landforms for the residual voids listed in **PRCP15(b)** must be designed to: (a) Prevent inundation during a 0.1% AEP flood event, or a less likely event than a 0.1% AEP event if required per **PRCP16(b)(ii)**; and (b) Mitigate the impacts of high-energy flow (≥2.5m/s) against the constructed landforms, using techniques such as, but are not limited to, energy dissipation measures (e.g. rock lining) and consideration of surface roughness to increase erosional resistance of the landform surface and ensure stability of the landforms. **Additional criteria for historical underground areas:** **3.13** An AQP certified risk assessment is conducted to determine appropriate rehabilitation treatments with consideration for erosional stability of the insitu soil types, safety risks relevant to the proposed PMLU, impacts to either existing rehabilitation areas or otherwise the terrestrial ecological values, and potential ecological impacts or erosional stability considerations from any disturbance caused from the future rehabilitation activities.

Milestone reference	Rehabilitation milestone	Milestone criteria
		3.14 All historical underground areas rehabilitated (e.g. backfilled, plugged / sealed stabilised, access restricted and signposted, etc, where applicable) in accordance with design specifications and methodologies prepared and certified by an AQP. The rehabilitation design must be developed having regard to the findings of the risk assessment required under **RM3.13**. In determining appropriate rehabilitation treatments, the AQP must consider erosional stability, surface safety risks, impacts to existing rehabilitation, ecological values and potential ecological impacts from any disturbance to be caused from the future rehabilitation activities. **3.15** Independent AQP certifies achievement of **RM3.1** to **RM3.14** inclusive.
RM4	Surface preparation	**4.1** **Growth media assessment:** Growth media health and suitability is assessed and documented by an AQP as suitable for the PMLU and target vegetation establishment no more than 6 months prior to placement on the landform for the parameters in **Attachment 1 – Growth Media Quality Criteria**. **4.2** **Amelioration:** Where growth media tested under the criteria of **RM4.1** does not meet the criteria of **Attachment 1 – Growth Media Quality Criteria**, the growth media is ameliorated to achieve the criteria. **4.3** **Growth media placement:** For areas where topsoil has previously been removed, topsoil and or growth media is placed to a depth of: (a) ≥150mm for the cattle grazing and watercourse PMLUs; and (b) ≥100mm for the woodland habitat PMLU. **4.4** **Soil ripping:** Rip on contour at a depth ≥300mm or as recommended by an AQP. **4.5** Independent AQP certifies achievement of **RM4.1** to **RM4.4** inclusive.
RM5	Revegetation	**Cattle Grazing PMLU:** **5.1** Seeding is completed in accordance with the recommended pasture mix and seeding rates provided in **Attachment 2 – Seed Mix Species Lists and Seeding Rates (Table 1.1)**. **5.2** At least 4 species of 3P (preferred, palatable and perennial) grasses, including at least 2 native species of grasses, 2 native shade tree species, and 2 legume species are to be included in the seed mix, as listed in **Attachment 2 – Seed Mix Species Lists and Seeding Rates (Table 1.1 and Table 1.2),** or as recommended by an AQP.

Milestone reference	Rehabilitation milestone	Milestone criteria
		5.3 Shade tree species identified in **Attachment 2 – Seed Mix Species Lists and Seeding Rates (Table 1.2)** are excluded from the seed mixes applied to the upper surfaces of the NCPP TSF, Laleham TSF, Bottom Dam TSF and R36 Rejects Dump. **5.4** Minimum seeding rates of at least 12kg/ha of pure live grass seed, 0.5kg/ha shade tree seed and 3kg/ha of pure live uncoated legume seed are to be applied, unless adjusted by an AQP. **5.5** All seed mixes to include 5kg/ha of Japanese millet (*Echinochloa esculenta*) or similar as a cover crop to protect soils from erosion, unless adjusted by an AQP. **Woodland Habitat PMLU:** **5.6** Target Regional Ecosystems species seed mix for woodland habitat rehabilitation determined and documented by an AQP with consideration of the landform spoil and growth media characteristics, and the commercial availability of seed species. **5.7** Seeding is completed in accordance with the recommended woodland mix and seeding rates provided in **Attachment 2 – Seed Mix Species List and Seeding Rates (Table 2)**. **5.8** At least 6 species from the revegetation lists for framework trees, woody understorey (shrub) species, and grass species are to be included in the seed mix, or as recommended by an AQP as per **RM5.6**. **5.9** Minimum seeding rates of at least 4.5kg/ha of pure live seed for tree species, 3kg/ha of pure live seed for woody understorey species and 10kg/ha of pure live seed for grass species are to be applied, unless adjusted by an AQP as per **RM5.6**. **5.10** All seed mixes will also include 5kg/ha of Japanese millet (*Echinochloa esculenta*) or similar as a cover crop to protect soils from erosion, unless adjusted by an AQP. **Watercourse PMLU:** **5.11** Seeding is completed in accordance with the watercourse species mix and seeding rates provided in **Attachment 2 – Seed Mix Species List and Seeding Rates (Tables 3 and 4)**.

Milestone reference	Rehabilitation milestone	Milestone criteria
		5.12 Minimum seeding rates for upper and mid banks of at least 6kg/ha pure live seed for tree species, 4kg/ha of pure live seed for woody understorey species and 10kg/ha of pure live seed for grass species and other ground species are to be included in the seed mix, unless adjusted by an AQP. **5.13** Minimum seeding rates for lower banks of at least 5kg/ha pure live seed for tree species, 10kg/ha of pure live seed for grass species and other ground species are to be included in the seed mix, unless adjusted by an AQP. **5.14** All seed mixes will also include5 kg/ha of Japanese millet (*Echinochloa esculenta*) or similar as a cover crop to protect soils from erosion, unless adjusted by an AQP. **5.15** Independent AQP certifies achievement of **RM5.1** to **RM5.14** inclusive.
RM6	Achievement of surface requirements	**For all PMLUs**: **6.1** Weeds comprise <5% of total vegetative groundcover, except *Parthenium hysterophorus,* which must not exceed 10%, and must be assessed by an AQP as appropriately managed. **6.2** With respect to erosion: (a) There is no evidence of 'moderate' or 'severe' erosion as defined by **Attachment 3: Erosion Classification Framework**. (b) Any erosion present will not compromise the achievement of a PMLU to a stable condition; and (c) Erosion requiring intervention has been remediated and does not impact achieving the PMLU. **6.3** The following minimum groundcover is achieved for relevant structures (a) Slopes ≤15% constructed with a heavy clay growth media must achieve ≥70% groundcover. (b) Slopes ≤15% constructed with a light clay growth media must achieve ≥50% groundcover (c) Slopes >15 and ≤30% constructed with fresh Permian growth media must achieve ≥80% groundcover.

Milestone reference	Rehabilitation milestone	Milestone criteria
		6.4 Alternative slope grades and groundcover percentage combinations are acceptable where prescribed by an AQP, or the maximum slope grade and length combinations as per **Attachment 10 – Acceptable Material, Slope Grade, Slope Length and Groundcover Combinations for Relevant Structures** are achieved. **Additional criteria for Cattle Grazing PMLU:** **6.5** The groundcover required by **RM6.3** is vegetative groundcover with at least 50% of vegetative dry matter being comprised of pasture species as listed in **Attachment 2 – Seed Mix Species List and Seeding Rates (Table 1)**. **Additional criteria for Woodland Habitat and Watercourse PMLUs:** **6.6** A BioCondition assessment is completed by an AQP using the methodology outlined in the latest version of the Queensland Herbarium's 'BioCondition Assessment Manual'. **6.7** Modified BioCondition assessed under **RM6.6** demonstrates achievement of an overall score of: (a) for Woodland habitat PMLU, ≥15 out of a possible 60 for the hybrid regional ecosystem as defined in **Attachment 5 – Modified BioCondition Benchmarks for Woodland and Watercourse Regional Ecosystems**; and (b) for Watercourse PMLU, ≥15 out of a possible 60 for the relevant representative regional ecosystem as defined in **Attachment 5 – Modified BioCondition Benchmarks for Woodland and Watercourse Regional Ecosystems**. **Additional criteria for TSFs:** **6.8** Monitoring data that has been collected as described in the Closure Landform Design Report (**PRCP12**) or as detailed per relevant technical assessments, or rehabilitation monitoring reports indicate that the TSFs are on a trajectory to achieve a stable condition. **6.9** No deep-rooted trees present.

Milestone reference	Rehabilitation milestone	Milestone criteria
		Additional criteria for underground workings / historical subsidence areas: **6.10** An AQP must certify that areas affected by subsidence, overland flow or surface runoff overlying historical underground workings do not pose an unacceptable safety or environmental risk, do not prevent achievement of the final land use, and do not adversely affect landform stability, vegetation condition, ecosystem function or habitat values. Where relevant, ecosystem condition is to be demonstrated using the appropriate BioCondition assessment. Residual ponding, surface depressions, cracking or minor long-term ground movements that do not present such risks are acceptable and do not require remediation. **6.11** Independent AQP certifies achievement of **RM6.1** to **RM6.10** inclusive
RM7	Achievement of post-mining land use to a stable condition	**For all PMLUs**: **7.1** An AQP certified risk assessment is completed and confirms that the safety hazards in rehabilitation areas are not significantly different to surrounding unmined landscapes subject to the same land use. **7.2** Rehabilitation is assessed as geotechnically stable by an AQP with a minimum FOS ≥1.5 achieved at the safety bund, unless an alternative is justified by an AQP. **7.3** Any remaining infrastructure rehabilitated or removed in accordance with **RM1.1**. **7.4** An AQP certifies that the land is erosionally stable and: (a) There is no moderate or severe erosion present (as defined in **Attachment 3: Erosion Classification Framework**); and (b) All other erosion requiring intervention has been remediated and does not impact achieving the PMLU. **7.5** Surface water runoff is collected and monitored from representative areas of rehabilitation when surface flow occurs, and when it is safe to do so. Surface water quality results are compared, for interpretation purposes only, against the interim trigger levels in **Attachment 7 – Interim Surface Water Quality Trigger Levels** to provide an early indication of rehabilitation performance.

Milestone reference	Rehabilitation milestone	Milestone criteria
		7.6 Surface water in the receiving environment, downstream of completed rehabilitation areas, must be monitored monthly during flow and when it is safe to do so, at the locations specified in **Attachment 6 – Surface Water Monitoring Locations.** Monitoring in the receiving environment must commence no later than one year prior to the completion of **RM7** and must be compared, for interpretation purposes only, with the interim trigger levels in **Attachment 7 – Interim Surface Water Quality Trigger Levels.** An AQP must determine the receiving environment locations that are representative of upstream completed rehabilitation areas. **7.7** Groundwater quality, hydraulically downgradient of completed rehabilitation areas, must be monitored quarterly, at the locations specified in **Attachment 8 – Interim Groundwater Monitoring Locations.** Monitoring must commence no later than one year prior to the completion of **RM7**. Groundwater monitoring results are compared, for interpretation purposes only, against the interim trigger levels in **Attachment 9 Interim Groundwater Quality Trigger Levels**. An AQP must determine the downgradient monitoring locations that are representative of groundwater flow paths from completed rehabilitation areas. **Additional criteria for areas affected by residual ponding in subsidence areas (RA5):** **7.8** Areas of residual ponding score ≥15 out of a possible score of 30 as demonstrated using the relevant BioCondition score for RE11.3.27c as defined in **Attachment 5 – Modified BioCondition Benchmarks for Woodland and Watercourse Regional Ecosystems**. **Additional criteria for Existing Rehabilitation – Cattle Grazing PMLU (RA7):** **7.9** At least 60% of vegetative dry matter yield is comprised of 3P pasture species (Stocktake, 2021). **7.10** Grazing land condition is assessed as Good (A) condition if ungrazed, or Fair (B) if under a grazing regime as per **Attachment 4 – ABCD Land Condition Framework** (DES 2022a). **7.11** Leucaena >2m high: stem density is <250 stems per hectare (1 per 40m^2) mean total area **Additional criteria for Future Rehabilitation – Cattle Grazing PMLU (RA2, RA4):** **7.12** At least 60% of vegetative dry matter yield is comprised of 3P pasture species (Stocktake, 2021).

Milestone reference	Rehabilitation milestone	Milestone criteria
		7.13 Land suitability class is assessed in accordance with 'Rehabilitated mined land suitability for cattle grazing in the Bowen Basin (Short 2023).' Land suitability assessed by an AQP as ≤3; or if ≥4, is not different from pre-mining and/or limited by the same factors present in representative reference sites. **7.14** Leucaena >2m high: stem density is <250 stems per hectare (1 per 40m^2) mean total area. **Additional criteria for Existing Rehabilitation – Woodland Habitat PMLU (RA6):** **7.15** Species richness: ≥2 native tree species; ≥3 native shrub species; ≥4* native grass species **7.16** Tree canopy cover: ≥16% **Existing rehabilitation may contain a mixture of native and exotic grass species* **Additional criteria for Future Rehabilitation – Woodland Habitat PMLU (RA1, RA5):** **7.17** A modified BioCondition assessment is completed by an AQP using the methodology outlined in the latest version of the Queensland Herbarium's 'BioCondition Assessment Manual'. **7.18** Modified BioCondition assessed under **RM7.18** demonstrates achievement of an overall score of ≥33 out of a possible 60 for the relevant representative regional ecosystem as defined in **Attachment 5 – Modified BioCondition Benchmarks for Woodland and Watercourse Regional Ecosystems.** **Additional criteria for Watercourse PMLU (RA3):** **7.19** Index of Diversion Condition (IDC) assessment confirms: (a) Riparian vegetation index is greater or equal to upstream or downstream values (b) Geomorphic index is greater or equal to upstream or downstream values **7.20** A modified BioCondition assessment is completed by an AQP using the methodology outlined in the latest version of the Queensland Herbarium's 'BioCondition Assessment Manual'.

Milestone reference	Rehabilitation milestone	Milestone criteria
		7.21 Modified BioCondition assessed under **RM7.21** demonstrates achievement of an overall score of ≥30 out of a possible 60 for the relevant representative regional ecosystem as defined in **Attachment 5 – Modified BioCondition Benchmarks for Woodland and Watercourse Regional Ecosystems**. **7.22** Assessment report completed by an AQP confirms that diversions are in a stable condition and suitable for relinquishment. **7.23** Independent AQP certifies achievement of **RM1.1** to **RM7.22** inclusive.
RM8	Achievement of post-mining land use water quality	**Surface Water:** **8.1** Surface water quality is monitored monthly during flow at, but not limited to, the monitoring locations specified in **Attachment 6: Surface Water Monitoring Locations**, for all quality characteristics listed in **Attachment 7 – Interim Surface Water Quality Trigger Levels,** for a minimum of 5 consecutive years period immediately prior to surrender. **8.2** With respect to surface water and subject to **RM8.1** the following must be demonstrated prior to surrender: (a) Surface water quality at downstream locations must not exceed the interim trigger values specified in **Attachment 7 – Interim Surface Water Quality Trigger Levels** for 3 consecutive results within the 5-year period immediately prior to surrender; (b) If the surface water quality exceeds criteria (a), the applicable upstream site must be compared to the downstream site result; and the quality result measured at a downstream site must be equal to or less than the quality result measured at the applicable upstream site[2]. **8.3** If the **surface** water quality results monitored per **RM8.2** exceed the criteria listed, 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;

[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 trigger level 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 trigger level 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
		(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. **8.4** If **RM8.3** is triggered more than 3 times over 5 consecutive years prior to surrender, the 5-year timeframe as per **RM8.2** is restarted, unless a third-party AQP report determines that: (a) the exceedance is not the result of mining activities; or (b) there remains a low risk to achieving a stable condition. **Groundwater:** **8.5** Groundwater quality is monitored quarterly for at least 5 consecutive years at, but not limited to, the monitoring locations specified in **Attachment 8– Interim Groundwater Monitoring Locations**, for all quality characteristics listed in **Attachment 9 – Groundwater Quality Trigger Levels**. **8.6** The interim trigger levels in **Attachment 9 – Interim Groundwater Quality Trigger Levels** must not be exceeded, for 3 consecutive sampling events within the 5-year period immediately prior to surrender. **8.7** If the groundwater quality results monitored per **RM8.5** exceed the interim trigger levels listed in **Attachment 9 – Interim Groundwater Quality Trigger Levels,** an AQP must complete and provide to the administering authority an assessment of the cause of the exceedance **within 30 business days** of receiving the relevant sampling results. Where the assessment concludes: (a) that the cause of the exceedance is not mining activities or there is a low risk to achieving a stable condition then no further action is to be taken and the exceedance is not counted for the purposes of **RM8.6**; (b) that the cause of the exceedance is mining activities, then an assessment of potential environmental harm and any changes or rectification actions to rehabilitation activities must be determined and implemented; **8.8** Groundwater level is monitored twice per year and for a minimum of 5 consecutive years. **8.9** Independent AQP certifies achievement of **RM8.1** to **RM8.8** inclusive.

Section F – Non-use management areas

(IA1) Improvement area 1

Improvement Areas													
Improvement area	IA1												
Relevant activities	Voids (Ramp 8, Mimosa/Besgrove, Ramp 30, Deep Creek, Stewarton North, Stewarton South, Tannyfoil, South Ballamoo, Kenmare, Togara/North Marshmead, South Marshmead, Comet Downs East, Kennedy West)												
Total size (ha)	3,149												
Commencement of first milestone: MM1	01-Jul-2040												
NUMA	Non-use management area												
Date area is available	1/07/2040	1/07/2045	1/07/2050	1/07/2055	1/07/2060	1/07/2065	1/07/2070	1/07/2075	1/07/2080	1/07/2085	1/07/2090	1/07/2095	
Cumulative area available (ha)	584	584	584	1,673	1,673	1,673	1,758	1,758	1,807	2,157	2,791	3,149	
Milestone completed by	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070	10/12/2075	10/12/2080	10/12/2085	10/12/2090	10/12/2095	10/12/2100	10/12/2105
Milestone Reference	**Cumulative area achieved (ha)**												
MM1	584	584	584	1,673	1,673	1,673	1,758	1,758	1,807	2,157	2,791	3,149	
MM3	584	584	584	1,673	1,673	1,673	1,758	1,758	1,807	2,157	2,791	3,149	
MM4		584	584	584	1,673	1,673	1,673	1,758	1,758	1,807	2,157	2,791	3,149

(IA2) Improvement area 2

Improvement Areas						
Improvement area	IA2					
Relevant activities	Voids and TSFs with cover system (Ramp 74 TSF and Bonnie Doon TSF)					
Total size (ha)	164					
Commencement of first milestone: MM1	01-Jul-2040					
NUMA	Non-use management area					
Date area is available	1/07/2040	1/07/2045	1/07/2050			
Cumulative area available (ha)	105	105	164			
Milestone completed by	10/12/2045	10/12/2050	10/12/2055	10/12/2060	10/12/2065	10/12/2070
Milestone Reference	**Cumulative area achieved (ha)**					
MM1	105	105	164			
MM2			105	105	164	
MM3			105	105	164	
MM4				105	105	164

Improvement area milestones

Milestone reference	Management milestone	Milestone criteria
MM1	Achievement of structural stability	**1.1** The maximum area of each NUMA must not exceed the following: (a) Ramp 8 – 26 ha (b) Boonie Doon – 105 ha (c) Mimosa / Besgrove – 701 ha (d) Ramp 30 – 65 ha (e) Deep Creek – 79 ha (f) Stewarton North – 309 ha (g) Stewarton South – 93 ha (h) Tannyfoil – 400 ha (i) South Ballamoo – 350 ha (j) Kenmare – 85 ha (k) Ramp 74 – 59 ha (l) Togara / North Marshmead – 511 ha (m) South Marshmead– 123 ha (n) Kennedy West – 358 ha (o) Comet Downs East – 49 ha **1.2** Pit wall landforms must: (a) Be geotechnically stable when floodwater is against the creek-side batter (b) Not be constructed with dispersive material

		1.3 The closure landform design reports (required by **PRCP12**) must be completed by an AQP based on the latest flood modelling and materials data prior to construction. **1.4** The pit walls and TSFs achieve a minimum FOS ≥1.5 at the safety bund, as certified by an AQP. **1.5** A minimum distance of 50m is to be designed between the residual void crest and the toe of the safety bund, where against an external perimeter mining lease boundary. **1.6** The location of the voids and associated safety bunds does not cause instability or degradation to the land outside the NUMA. **1.7** Residual voids must not overtop to the receiving environment.
MM2	Installation of cover system	**2.1** Cover systems (water / spoil) have been designed, and installed as per engineered design plans as certified by an AQP to achieve the following criteria: (a) Minimum 2m cover thickness, where using spoil; and (b) Minimum 1m depth permanent water cover, where tailings not covered by spoil. **2.2** An AQP has certified that the cover system is built / installed as designed and has completed an 'As Constructed' engineering report for each cover system. **2.3** An AQP demonstrates with modelling that the cover system remains in place post-closure.
MM3	Achievement of safety requirements	**3.1** Access to residual voids is restricted by a competent safety bund or equivalent landform to prevent access, and are constructed to the following specifications: (a) Constructed from competent non-weathered, non-dispersive material; (b) Minimum height of 2m; (c) Minimum base width of 4m; (d) 1 in 3 batters; and. (e) Positioned at the geotechnical offset or a 15m offset, whichever is greater. **3.2** Access to highwalls is restricted by fencing and safety signage designed and installed in accordance with Australian standards current at the time of installation.

MM4	Achievement of sufficient improvement	**4.1** The final landform has been constructed in accordance with the landform closure design report. **4.2** The NUMA will not present an unacceptable risk of environmental harm. **4.3** 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. **4.4** The NUMA is safe to humans and livestock. **4.5** The water level and quality in the final voids does not, and will, not cause environmental harm to the receiving environment, as demonstrated by groundwater level, surface water and groundwater quality monitoring and modelling. **4.6** An AQP demonstrates with water quality, water level and modelling data, that the residual voids (treated as a system), act as groundwater sinks post-closure and will not cause environmental harm through the release of contaminants from the void lakes beyond the tenure boundaries post-closure. **4.7** NUMAs retain flood immunity for 0.1% AEP events, and during a less likely flood event than an 0.1% AEP event for the R74 residual void if required per **PRCP16(b)(ii)**, as confirmed by flood modelling updated based on that undertaken in accordance with **PRCP17**. **4.8** Independent AQP certifies achievement of **MM1.1** to **MM4.7** inclusive.

Section G – Attachments

Attachment 1 – Growth Media Quality Criteria

Parameter	Criteria		
	Cattle Grazing PMLU (RA2, RA4)	Woodland Habitat PMLU (RA1, RA5)	Watercourse PMLU (RA3)
Available Phosphorus (Colwell P)	≥14mg/kg	≥8mg/kg	≥8mg/kg
Electrical Conductivity Saturation Extract (ECse)	<4dS/m	<4dS/m	<2dS/m
Exchangeable Sodium Percentage (ESP)	≤6%	≤10%	≤6%
pH	6 – 8.4	5.1 – 8.8 or as determined by an AQP	6.0 – 8.8 or as determined by an AQP

Attachment 2 – Seed Mix Species Lists and Seeding Rates

Table 1.1 – Recommended species list and seeding rates for Cattle Grazing PMLU

Scientific name	Common name	Cracking clays and heavy loams/clays	Light loams/sands	Pure live seed[1] (PLS) rate (kg/ha)
Astrebla lappulacea, A, squarrosa, A. elymoides	Mitchell Grasses (curly, bull and hoop)	X	-	1-3 (per species)
Bothriochloa bladhii	Forest Blue Grass	-	X	1-3
*Bothriochloa insculpta cvv. Bisset**	Bisset Creeping Blue Grass	X	X	1-2
*Chloris gayana cvv. Callide**	Callide Rhodes Grass	X	X	1-2
*Chloris gayana cvv. Katambora**	Katambora Rhodes Grass	X	X	1-3
Dichanthium sericeum subsp. sericeum	Queensland Blue Grass	X	-	1-3
Digitaria brownii	Cotton Panic	X	X	1-3
Heteropogon contortus	Black Spear Grass	X	X	1-3
*Megathyrsus maximus var. pubiglumis**	Green Panic	-	X	1-2
*Panicum coloratum var. makarikariense**	Bambatsi Panic	X	-	1-2
Panicum decompositum	Native Millet	X	X	1-3
Urochloa mosambicensis	Sabi Grass	-	X	1-2
Grass species – Total seed weight coated (kg/ha)				**12**
*Stylosanthes seabrana**	Caatinga stylo	X	-	1
*Macroptilium bracteatum **	Burgundy bean	X	X	1-2
*Stylosanthes hamata**	Caribbean stylo	-	X	1
Rhynchosia minima	Rhynchosia	X	X	1-2
Legume species – Total seed weight uncoated (kg/ha)				**3**
Echinochloa esculenta	Japanese Millet	X	X	5

[1] Where pure live seed (PLS) information is not yet available minimum seeding rates should be 16kg/ha uncoated pasture grasses, 4kg/ha uncoated legume species and 5kg/ha cover crop

** Denotes exotic species*

Table 1.2 – Recommended shade tree species list for cattle grazing PMLU

Scientific name	Common name
Blakella citriodora subsp. citriodora	Lemon scented gum
Corymbia clarksoniana	Clarkson's bloodwood
Blakella dallachiana	Dallachy's gum
Eucalyptus crebra	Narrow leaved ironbark
Eucalyptus melanophloia	Silver leafed ironbark
Eucalyptus populnea	Poplar box

Table 2 Recommended species list and seeding rates for Woodland Habitat PMLU

Scientific name	Common name	Commercial availability rating[1]	Life form and functional group code[2]	Cracking Clay and heavy loam/ clay topsoil	Light loams/ sand	Pure live seed[3] rate (kg/ha- uncoated weight)	RE11.5.3	RE11.5.9	RE11.7.1	RE11.7.2	RE11.7.6	RE11.10.7
Acacia catenulata	Bendee	L	LLA	X	X	0.5 -1.5	-	-	X	X****	-	-
Acacia harpophylla	Brigalow	L	LLA	X	X	0.5 -1.5	-	-	X	-	-	-
Acacia rhodoxylon	Rosewood	L	LLA	X	X	0.5 -1.5	X	X	X	X****	X	-
Acacia shirleyi	Lancewood	L	LLA	X	X	0.5 -1.5	-	X	X	X****	X	-
Alphitonia excelsa	Red ash	H	NE/NA	X	X	0.2-0.5	X	X	X	X	X	X
Angophora leiocarpa	Smooth barked apple	L	E/C	-	X	0.2-0.5	X	-	-	X	X	X
Atalaya hemiglauca	Whitewood	H	NE/NA	X	X	0.2-0.5	X	-	-	X	X	X
*Blakella citriodora subsp. citriodora**	Lemon scented gum	H	E/C	X	X	0.5 -1.5	-	-	-	X*	X*	-
Corymbia clarksoniana	Clarkson's bloodwood	M	E/C	X	X	0.5-1	X	X	-	X	-	X
Blakella dallachiana	Dallachy's gum	M	E/C	X	X	0.2-0.5	X	X	-	X	-	X
Corymbia erythrophloia	Red bloodwood	H	E/C	X	X	0.2-0.5	X	-	-	X	-	X
Corymbia leichhardtii	Yellow jacket	M	E/C	X	X	0.2-0.5	-	-	-	X	X	-
Corymbia trachyphloia	Brown bloodwood	M	E/C	X	X	0.2-0.5	-	-	-	X	X	-
Blakella tessellaris	Moreton Bay ash	L	E/C	X	X	0.2-0.5	-	-	-	X	-	-
Eucalyptus cambageana	Dawson's gum	H	E/C	X	X	0.2-0.5	-	-	-	X	-	-
Eucalyptus crebra	Narrow leafed ironbark	H	E/C	X	X	0.5 -1.5	X	X*	-	X*	X*	X*
Eucalyptus decorticans	Gum-topped ironbark	L	E/C	-	-	0.1-0.5	-	-	-	X	X	-
Eucalyptus fibrosa subsp. fibrosa	Red Ironbark	M	E/C	X	X	0.1 -1.5	-	-	-	-	X	-
Eucalyptus exserta	Queensland peppermint	H	E/C	-	X	0.3-0.5	-	X	-	X	-	-
Eucalyptus melanophloia	Silver leafed ironbark	H	E/C	X	X	0.5 -1.5	X*	-	-	-	-	X
Eucalyptus thozetiana	Thozet's gum	L	E/C	-	-	0.3-0.5	-	-	X*	X	-	-
Eucalyptus moluccana	Gum topped box	M	E/C	X	X	0.5 -1.5		-	-	-	X	-
Eucalyptus populnea	Poplar box	M	E/C	X	X	0.5 -1.5	X*	-	-	X	X	X
Lysiphyllum carronii	Red bauhinia	M	NE/NA	X	X	0.2-0.5	X	-	-	-		-
Lysiphyllum hookeri	White bauhinia	M	NE/NA	X	-	0.2-0.5	X	-	-	-		-
Ventilago viminalis	Vine tree	M	NE/NA	X	-	0.2-0.5	X		-	--	X	-
Framework tree species – Total seed weight uncoated (kg/ha)						**4.5**						
Acacia conferta	Crowded-leaf wattle	H	SU	-	X	0.2-0.5	X	X	-	-	X	-
Acacia crassa	Curracabah	L	ILA	X	X	0.2-0.5	-	-	X	X	X	-
Acacia excelsa	Ironwood wattle	L	ILA	X	X	0.2-0.5	X	X	-	-	X	X
Acacia leptostachya	Townsville Wattle	M	SU	-	X	0.2-0.5	-	X	-	-	-	-
Acacia sericophylla	Desert oak	M	ILA	-	X	0.2-0.5	X	-	-	-	-	-
Alectryon diversifolius	Native holly	L	SU	X	X	0.2-0.5	X	-	X	X	X	-
Alstonia constricta	Bitterbark	L	SU	X	X	0.2-0.5		X	-	X		-
Breynia oblongifolia	Coffee bush	L	SU	X	X	0.2-0.5		X	-	X	X	X
Capparis lasiantha, C. canescens, C. loranthifolia.	Wait-a-while	M	V/C	X	X	0.2-0.5	X	X	X	X	X	-
*Cassia brewsteri**	Leichhardt bean	H	SU	X	X	0.3-0.5	X	-	X	-	X	-
Croton insularis	Silver croton	L	SU	-	X	0.2-0.5	-	-	X	X	X	-
Dodonaea triangularis	Triangle hop bush	L	SU	X	X	0.1-0.5	-	-	X	X	X	-
Dodonaea oxyptera	Hop bush	L	SU	X	X	0.1-0.5	-	-	X	X	X	-
*Dodonaea viscosa**	Sticky hop bush	H	SU	X	X	0.2-0.5	X	-	X	-	X	-
Dodonaea filifolia	Thread leaved hop bush	L	SU	X	X	0.1-0.5	-	-	-	X	X	-
Denhamia cunninghamii		L	SU	X	X	0.1– 0.5	X	-	-	-	X	-
Eremophila mitchellii	False sandlewood	L	SU	X	X	0.1-0.5	X	-	X	X	-	X
Erythroxylon australe	Cocaine tree	L	SU	X	X	0.1-0.5	X	X	X	X	-	X
Geijera parvifolia	Wilga	H	SU	X	X	0.1-0.5	X	X	X	X	X	X
Grewia latifolia	Dogs balls	H	SU	X	X	0.2-0.5	X	X		-	X	X

Scientific name	Common name	Commercial availability rating[1]	Life form and functional group code[2]	Cracking Clay and heavy loam/ clay topsoil	Light loams/ sand	Pure live seed[3] rate (kg/ha- uncoated weight)	RE11.5.3	RE11.5.9	RE11.7.1	RE11.7.2	RE11.7.6	RE11.10.7
Myoporum montanum, M. acuminatum	Boobialla	H	SU	X	X	0.1-0.5	X	X	X	X	X	-
Philotheca difformis	Small-Leaf Wax-Flower	L	SU	X	X	0.1-0.5	-	-	X	X	X	-
Persoonia falcata	Wild pear	L	SU	X	X	0.1-0.3	X	X	X	X	X	-
Petalostigma pubescens	Quinine	M	SU	X	X	0.3-0.5	X	X	-	X	-	-
Senna artemisioides	Silver cassia	H	SU	X	X	0.3-0.5	X	-	-	-	X	-
Woody understory species – Total seed weight uncoated (kg/ha)						**3**						
Astrebla lappacea	Curly Mitchell grass	H	NG	X	-	1-2	X**	X**	-	-	-	-
Aristida spp (i.e. A. calycina, A. benthamii, A. latifolia, A. ramosa, A. caput-medusae, A. jerichoensis, A. personata, A. calycina)	Three awned spear grass	M	NG	-	X	1-2	X	X	X	X	X	X
Bothriochloa bladhii subsp. bladhii	Forest blue grass	H	NG	X	X	1-2	X	X	-	X**	-	-
Bothriochloa decipiens var. decipiens	Pitted blue grass	L	NG	X	X	0.5-1	X	-	--	X**	X	X
Bothriochloa ewartiana	Desert bluegrass	L	NG	X	X	0.5-1	X	-	-	-	-	-
Calyptochloa gracillima		L	NG	X	X	0.5-1	-	X	X	X	X	-
Chloris divaricata	Slender Chloris	M	NG	X	X	0.5-1	-	-	X	-	-	-
Chloris truncata	Windmill grass	H	NG	X	X	2-4	X***	X***	X***	X***	X***	X***
Chloris ventricosa	Tall Chloris	M	NG	X		1-2	-	-	X		X	X
Chrysopogon fallax	Golden beard grass	L	NG	X	X	0.5-1	X	X	X	X	X	X
Cymbopogon refractus, C. bombycinus	Barbwire grass	H	NG	X	X	0.5-1	X	X	X	X**	X	X
*Cynodon dactylon var. dactylon**	Couch	H	EG	X	X	2	X***	X***	X***	X***	X***	X***
Dichanthium sericeum subsp. sericeum	Queensland bluegrass	H	NG	X	X	1-2	X	-	-	-	-	-
Dinebra decipiens	Slender cane grass	L	NG	X	X	0.5-1	X		X	X	X	-
Enteropogon acicularis	Curly windmill grass	M	NG	X	X	0.5- 2	X	X	X	X	X	-
Eulalia aurea	Silky brown top	M	NG	X	X	0.5-1	X	-	-	X**	-	-
Heteropogon contortus	Black spears	M	NG	X	X	1-2	X	X	X	X**	X	X
Panicum effusum	Hairy panic	L	NG	X	X	0.5-1	X	X	X	X	X	X
Panicum decompositum	Native millet	H	NG	X	-	1-2	X	X	-	X	-	-
Panicum queenslandicum	Yabila grass	L	NG	X	-	0.5-1	X	X	-	-	--	-
Paspalidium distans	Shot grass	M	NG	-	X	0.5-1	-	-	X	X	X	-
Themeda triandra	Kangaroo grass	H	NG	X	X	1-2	X	X	X	X**	X	X
Triodia pungens	Spinifex	L	NG		X	0.5-1	X	-	-	X	X	-
Grass species – Total seed weight uncoated (kg/ha)						**10**						
Echinochloa esculenta	Japanese millet		Cover crop	X	X	5	-	X***	X***	X***	X***	X***

[1] Commercial availability rating: high (H), medium (M), low (L)
[2] Life form and functional group code: Eucalypt/Bloodwood (Corymbia) species (E/C), Non-eucalypt, non-acacia species (NE/NA), Long lived acacias (LLA), Shrubby understorey (SU), Groundcover shrubs (GCS), Vines/creepers (V/C), Intermediate lifespan acacias (ILA), Short lifespan wattles (SLA), Introduced woody perennials (IWP), Competitive pasture grasses (CPG), Introduced grasses (IG), Native grasses (NG)
[3] Where pure live seed (PLS) information is not yet available minimum seeding rates must be at least 6kg/ha uncoated framework tree species, 4kg/ha uncoated woody understory species, 10 kg/ha uncoated grass species and 5kg/ha cover crop
** mandatory in relevant RE mix*
*** medium salinity tolerance (DERM 2011)*
**** additional grass species to support groundcover and stability from other representative REs*
***** RE11.7.2 Requires at least 50% or 1.5kg/ha of any combination of Acacia catenulata, Acacia rhodoxylon* and *Acacia shirleyi.*

Table 3 – Recommended species list and seeding rates for Watercourse PMLU – upper and mid banks

Species name	Common name	Life form and functional group code	Pure Live Seed rate (kg/ha – uncoated weight)
*Acacia stenophylla***	River Myall	LLA	0.5 – 1
Alphitonia excelsa	Red Ash	NE/NA	0.5 – 1
Angophora floribunda	Rough Barked Apple	E/C	0.5 – 1
Angophora leiocarpa	Smooth Barked Apple	E/C	0.5 – 1
Angophora subvelutina	Broadleaf Apple	E/C	0.5 – 1
*Casuarina cristata***	Belah	E/C	0.5 – 1
Casuarina cunninghamiana, **	River She Oak	NE/NA	0.5 – 1
*Corymbia tessellaris***	Moreton Bay Ash	NE/NA	0.5 – 1
*Eucalyptus camaldulensis *, **	River Red Gum	E/C	1 – 2
Eucalyptus coolabah subsp. coolabah	Coolabah	E/C	1 – 2
Eucalyptus melanophloia	Silver Leaved Ironbark	E/C	0.5 – 1
Eucalyptus populnea	Poplar Box	E/C	0.5 – 1
Eucalyptus tereticornis, **	Queensland Blue Gum	E/C	0.5 – 1
Lysiphyllum hookeri	White Bauhinia	NE/NA	0.5 – 1
Melaleuca bracteata, **	Black Tea Tree	NE/NA	0.5 – 1
Terminalia oblongata	Yellowwood	NE/NA	0.5 – 1
Framework tree species – total seed weight uncoated (kg/ha)			**6**
Acacia excelsa	Ironwood Wattle	ILA	0.5 – 1
Acacia fasciculifera	Scaly Bark	ILA	0.5 – 1
*Cassia brewsteri***	Leichardt Bean	SU	0.5 – 1
Dodonaea viscosa	Sticky Hop Bush	SU	0.5 – 1
Eremophila mitchellii	False Sandalwood	SU	0.5 – 1
Erythroxylum australe	Cocaine Tree	SU	0.5 – 1
Ficus coronata	Creek Sandpaper Fig	SU	0.5 – 1
Ficus fraseri	White Sandpaper Fig	SU	0.5 – 1
Ficus opposita	Sandpaper Fig	SU	0.5 – 1
Grevillea striata	Beefwood	SU	0.5 – 1
Grewia latifolia	Dogs Balls	SU	0.5 – 1
Hakea lorea	Bootlace Oak	SU	0.5 – 1
Mallotus philippensis	Red Kamala	SU	0.5 – 1
Petalostigma pubescens	Quinine	SU	0.5 – 1
Woody understorey species – total seed weight uncoated (kg/ha)			**4**
Bothriochloa bladhii	Forest Blue Grass	NG	1 – 2
Cymbopogon refractus	Barbwire Grass	NG	1 – 2
Capillipedium spicigerum	Scented Top	NG	0.2 – 0.5
*Chloris divaricata or C. Ventricosa**	Slender Chloris, Tall Windmill Grass	NG	1 – 2
Cynodon dactylon,***	Couch	IG	2
Dichanthium sericeum subsp. sericeum	Queensland Bluegrass	NG	1 – 2
Digitaria brownii	Cotton Panic	NG	1 – 2
Eulalia aurea	Silky Brown Top	NG	1 – 2
Heteropogon contortus	Bunched Speargrass	NG	1 – 2
Lomandra longifolia	Mat Rush	NG	1 – 2
Panicum effusum	Hairy Panic	NG	1 – 2
Paspalidium distans	Shot Grass	NG	1 – 2
Themeda triandra	Kangaroo Grass	NG	1 – 2
Ground species – total seed uncoated (kg/ha)			**10**
Echinochloa esculenta	Japanese Millet	Cover crop	5

Notes:

[1] Life form and functional group code: Eucalypt/Bloodwood (Corymbia) species (E/C), Non-eucalypt, non-acacia species (NE/NA), Long lived acacias (LLA), Shrubby understorey (SU), Groundcover shrubs (GCS), Vines/creepers (V/C), Intermediate lifespan acacias (ILA), Short lifespan wattles (SLA), Introduced woody perennials (IWP), Competitive pasture grasses (CPG), Introduced grasses (IG), Native grasses (NG)

[2] Where pure live seed (PLS) information is not yet available minimum seeding rates must be at least 6kg/ha uncoated framework tree species, 4kg/ha uncoated woody understory species, 10 kg/ha uncoated grass species and 5kg/ha cover crop

** mandatory in relevant RE mix*

*** medium salinity tolerance (DERM 2011)*

Table 4 – Recommended Species list and seeding rates for Watercourse PMLU – lower banks

Species name	Common name	Life form and functional group code[1]	Pure Live Seed[2] rate (kg/ha – uncoated weight)
Casuarina cunninghamiana, ***	River She Oak	NE/NA	0.5 – 1
Melaleuca bracteata, ***	Black Tea Tree	NE/NA	0.5 – 1
Melaleuca fluviatilis	Weeping Tea-Tree	NE/NA	0.5 – 1
*Melaleuca linariifolia***	Snow In Summer	NE/NA	0.5 – 1
*Melaleuca leucadendra ***	Broad-Leaved Tea Tree	NE/NA	0.5 – 1
Melaleuca viminalis, ***	Red Bottlebrush	NE/NA	0.5 – 1
Melaleuca trichostachya	Flax-Leaf Paperbark	NE/NA	0.5 – 1
Lophostemon suaveolens	Swamp Box	NE/NA	0.5 – 1
Framework tree species – total seed weight uncoated (kg/ha)			**5**
Bothriochloa bladhii subsp. bladhii	Forest Blue Grass	NG	1 – 2
Chloris divaricata or C. ventricosa	Slender Chloris, Tall Windmill Grass	NG	1 – 2
Cymbopogon refractus	Barbwire Grass	NG	1 – 2
Cynodon dactylon, ***	Couch	IG	2 – 3
*Cyperus spp. (C. gracilis, C. fulvus)****	Sedge	NG	2 – 3
Dichanthium sericeum subsp. sericeum	Queensland Bluegrass	NG	1 – 2
*Lomandra longifolia****	Spiny-Headed Mat Rush	NG	2 – 3
Paspalidium distans	Shot Grass	NG	1 – 2
Themeda triandra	Kangaroo Grass	NG	1 – 2
Ground species – total seed weight uncoated (kg/ha)			**10**
Echinochloa esculenta	Japanese Millet	Cover crop	5

Notes:

[1] Life form and functional group code: Eucalypt/Bloodwood (Corymbia) species (E/C), Non-eucalypt, non-acacia species (NE/NA), Long lived acacias (LLA), Shrubby understorey (SU), Groundcover shrubs (GCS), Vines/creepers (V/C), Intermediate lifespan acacias (ILA), Short lifespan wattles (SLA), Introduced woody perennials (IWP), Competitive pasture grasses (CPG), Introduced grasses (IG), Native grasses (NG)

[2] Where pure live seed (PLS) information is not yet available minimum seeding rates must be at least 6kg/ha uncoated framework tree species, 4kg/ha uncoated woody understory species, 10 kg/ha uncoated grass species and 5kg/ha cover crop

** mandatory in relevant RE mix*

*** medium salinity tolerance (DERM 2011)*

**** bank toe area only*

Attachment 3 – Erosion Classification Framework

Erosion classification	Minor[1]	Moderate[1]	Severe[1]
Sheet erosion	Shallow soil deposits downslope.	Active[3] sheet erosion including indicators such as exposure of roots, moderate soil deposits in downslope sediment traps.	Active[3] sheet erosion including loss of surface horizons, exposure of subsoil horizons, pedestalling, root exposure, substantial soil deposits in downslope sediment traps.
Rill[6]	<7 active[3] rills / 50m transect[5]	7-15 active[3] rills / 50m transect[5]	>15 active[3] rills / 50m transect[5]
Gully erosion	Stabilised[4] gullies 30cm – 100cm depth; isolated, linear, discontinuous and restricted to primary or minor drainage lines.	Active[3] gullies 30cm – 100cm depth; isolated, linear, discontinuous and restricted to primary or minor drainage lines.	Active[3] gullies >100cm depth
Tunnel erosion	No tunnel erosion[2]	No tunnel erosion[2]	Tunnel erosion present
Mass movement	No mass movement[2]	No mass movement[2]	Mass movement present

Notes:
[1] State of Erosion form definitions: *NCST (2024) Australian Soil and Land Survey Field Handbook, 4th edition. The National Committee on Soil and Terrain. CSIRO Publishing, Collingwood, Australia.*
[2] No erosion: no evidence of any erosion types.
[3] Active: One or both of the following conditions apply: evidence of sediment movement; sides and/or floors of erosion form are relatively bare of vegetation.
[4] Stabilised: One or both of the following conditions apply: no evidence of sediment movement; sides and/or floors of erosion form are revegetated.
[5] The erosion monitoring transect is established by running a 50m tape at an angle perpendicular to the slope (i.e. along the contour).
[6] Rill frequency assessed over the entire rehabilitation area (not only features that intersect an existing monitoring transect).

Attachment 4 – ABCD Land Condition Framework

ABCD Land Condition Framework	
The ABCD land condition framework (*Grazing Guide version 2, Department of Environment, Innovation and Science, 2022*)	
Good condition (A)	**Fair condition (B)**
Often above 70% groundcover	Minimum 50% groundcover, but often less than 70% groundcover
Good density of perennial grasses (less than 30% bare ground), dominated by 3P grasses ≥80%	Decreased density of perennial grasses (bare ground > 30% but < 50%), dominated by 3P grasses ≥60%
Few weeds, no significant infestations	Increased weeds, no significant infestations
Good soil condition, no erosion	Decline in soil condition, minor erosion only as per **Attachment 3 – Erosion Classification Framework**.

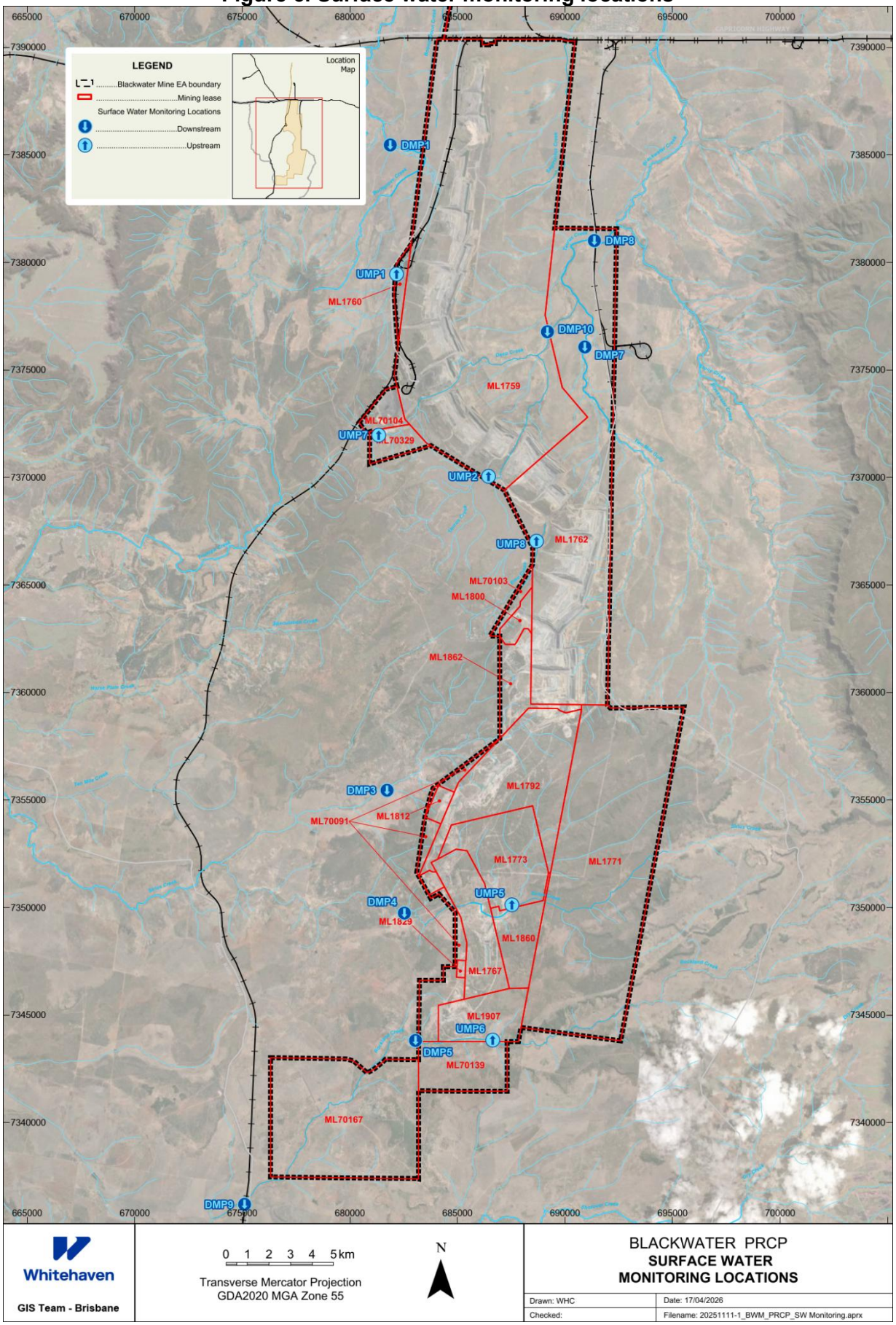
Attachment 5 – Modified BioCondition Benchmarks for Woodland and Watercourse Regional Ecosystems

BioCondition Accessible Attribute	Maximum score for Attributes	RE11.5.3	RE11.5.9	RE11.7.2	RE11.7.6	RE11.7.1	RE11.3.25	RE11.10.7	RE11.3.27 (ponded areas only)
Recruitment of woody perennial species in ecologically dominant layer (%)	5	100	100	100	100	100	100	100	NA
Native plant species richness – trees	5	6	3	3	4	4	4	6	NA
Native plant species richness – shrubs	5	6	6	4	5	8	4	6	NA
Native plant species richness – grasses	5	6	9	5	10	8	8	7	2
Native plant species richness – forbs	5	10	11	5	16	9	13	9	10
Tree canopy height (m)	5	16	17	15	25	20	23	18	NA
Tree canopy cover (%)	5	20	25	40	40	27	34	40	NA
Shrub canopy cover (%)	5	3	10	4	11	10	7	8	NA
Native grass cover (%)	5	19	26	15	23	20	35	20	11
Organic litter (%)	5	20	30	20	52	20	21	53	4
Non-native plant cover (%)	10	0	0	0	0	0	0	0	0
Maximum score	60	≥33	≥33	≥33	≥33	≥33	≥30	≥33	≥30

Attachment 6 – Surface Water Monitoring Locations

Monitoring points	Receiving waters location description	Latitude (GDA2020)	Longitude (GDA2020)
Upstream background monitoring points			
UMP1	Upstream Burngrove Creek, 5km from RP1	-23.685442	148.786577
UMP2	Upstream Taurus Ck 3300m U/S of RP2	-23.76985	148.82968
UMP5	Upstream Sirius Ck 2200m U/S of RP5 & 8	-23.949568	148.842866
UMP6	Upstream Rockland Creek, 3.5km from RP6	-24.006466	148.834899
UMP7	Upstream Deep Ck U/S of RP3	-23.75315	148.77936
UMP8	Upstream Two Mile Gully U/S of RP4	-23.79681	148.85192
Downstream monitoring points			
DMP1	Downstream Burngrove Creek, 2.5km from RP1	-23.631288	148.782969
DMP3	Downstream Speculation Ck	-23.902163	148.785195
DMP4	Downstream Sirius Creek	-23.95363	148.79383
DMP5	Downstream Rockland Creek	-24.007041	148.799663
DMP7	Far Downstream Two Mile Gully	-23.715032	148.872814
DMP8	Downstream Taurus Ck	-23.67032	148.876505
DMP9	Far Downstream Rockland Creek	-24.076739	148.722475
DMP10	Downstream Deep Creek	-23.70886	148.85567

Figure 5. Surface water monitoring locations



Attachment 7 – Interim Surface Water Quality Trigger Levels

Quality characteristics (units)	Unit	Trigger level	Comment on trigger level
pH	pH Units	6.5 – 8.5	WQO
Electrical Conductivity	µS/cm	366 / 275	Site-specific Mackenzie River tributaries / Comet River tributaries – 80th percentile
Turbidity	NTU	400	Site-specific – 80th percentile
Sulphate	mg/L	14 / 6	Site-specific Mackenzie River tributaries / Comet River tributaries – 80th percentile
Ammonia	mg/L	0.15	Site-specific – 80th percentile
Nitrate	mg/L	0.8	Site-specific
Fluoride	mg/L	0.4	Site-specific
Aluminium	µg/L	1,097	Site-specific – 95th percentile
Antimony	µg/L	9	ANZG 2018
Arsenic	µg/L	13	ANZG 2018
Boron	µg/L	100	Site-specific – 95th percentile
Cadmium	µg/L	0.2	ANZG 2018
Iron	µg/L	530	Site-specific – 80th percentile
Manganese	µg/L	412	Site-specific – 95th percentile
Mercury	µg/L	0.06	ANZG 2018
Molybdenum	µg/L	5	Site-specific – 95th percentile
Nickel	µg/L	11	ANZG 2018
Selenium	µg/L	5	ANZG 2018
Uranium	µg/L	0.5	ANZG 2018
Vanadium	µg/L	6	ANZG 2018
Zinc	µg/L	8	ANZG 2018
Total recoverable hydrocarbons (C6-C9)	µg/L	20	
Total recoverable hydrocarbons (C10-C36)	µg/L	100	
Major ions (mg/L) Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate		For interpretation purposes	
Hardness (mg/L)		For interpretation purposes	

Notes:

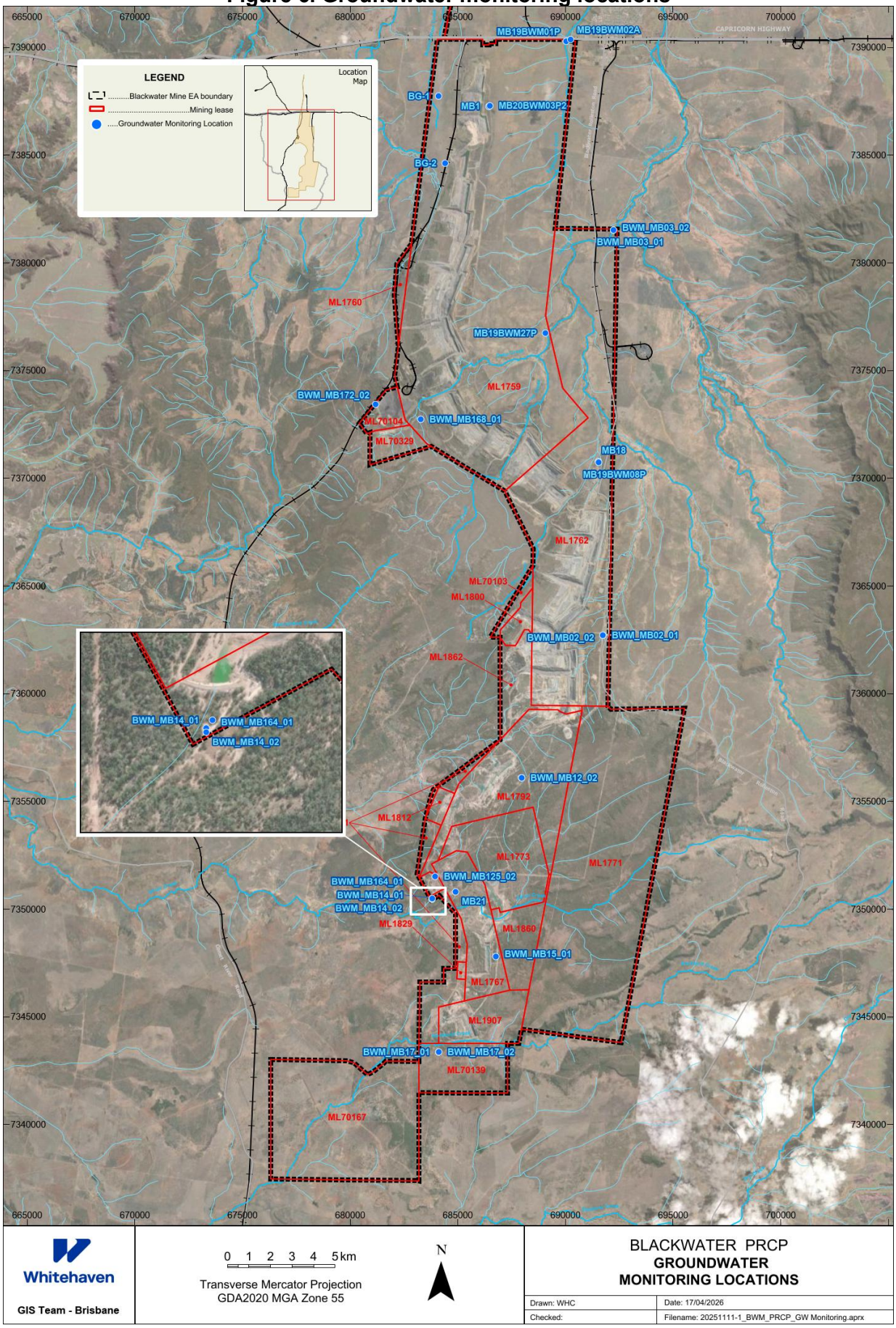
- *All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).*
- *Interim trigger levels for metals and metalloids apply to dissolved results.*
- *ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection).*
- *WQO – Mackenzie River southern tributaries and Comet River Eastern tributaries*
- *Assessment of turbidity to consider post-first flush only.*

Attachment 8 – Groundwater Monitoring Locations

Bore Name	Location	Latitude (GDA2020)	Longitude (GDA2020)	Monitored Aquifer
BG-1	MB14 West Bonnie Doon	-23.610428	148.804513	Burngrove Formation
BG-2	SE corner of ML1762, downgradient MB for Blackwater Creek catchment	-23.638561	148.807897	Burngrove Formation
BWM_MB02_01	Central. East, monitor downgradient from existing pits. Co-located with 02_02	-23.835476	148.882626	Permian inter/over burden
BWM_MB02_02	Central. East, monitor downgradient from existing pits. Co-located with 02_01	-23.835468	148.882499	Permian Coal
BWM_MB03_01	North. NE corner ML1762, monitor downgradient from existing pits, Blackwater Ck catchment. Co-located with 03_02	-23.665680	148.884891	Alluvium
BWM_MB03_02	North. NE corner ML1762, monitor downgradient from existing pits. Co-located with 03_01	-23.665626	148.884920	Rewan Formation
BWM_MB12_01	Kenmare UG and adjacent east of Terang Pit Ramp 64/66	-23.895626	148.846277	Tertiary sediments
BWM_MB12_02	Kenmare UG and adjacent east of Terang Pit Ramp 64/66	-23.895670	148.846376	Permian Coal
BWM_MB125_02	Upgradient Red Dam	-23.937460	148.807469	Tertiary sediments
BWM_MB14_01	Red Dams, south of Lower Red Dam wall on inside corner of lease boundary	-23.946911	148.806127	Permian inter/over burden
BWM_MB14_02	Red Dams, south of Lower Red Dams wall on inside corner of lease boundary	-23.947011	148.806129	Permian inter/over burden
BWM_MB15_01	East of Ramp 80	-23.970678	148.835662	Tertiary sediments
BWM_MB164_01	Downgradient Red Dam	-23.946711	148.806292	Tertiary sediments
BWM_MB168_01	Downgradient NCPP TSF	-23.745972	148.798273	Weathered Coal (RCM)
BWM_MB17_01	ML70139 south, south of Marshmead Pit, to be mined out by FY30	-24.011000	148.810088	Basalt

Bore Name	Location	Latitude (GDA2020)	Longitude (GDA2020)	Monitored Aquifer
BWM_MB17_02	ML70139 south, south of Marshmead Pit, to be mined out by FY30	-24.010981	148.810167	Tertiary sediments
BWM_MB172_02	Upgradient NCPP TSF	-23.739944	148.777611	Sandstone (Burngrove)
MB1	East of Bonnie Doon	-23.614502	148.827470	Permian Coal
MB18	East Ramp 46, north of BLW Administration area	-23.762676	148.879409	Permian inter/over burden
MB19BWM01P	Far NE corner of BLW ML1759, near BLW township	-23.586810	148.862287	Permian Coal
MB19BWM02A	Far NE corner of BLW ML1759, near BLW township	-23.586055	148.864266	Permian inter/over burden
MB19BWM08P	East Ramp 46, north of BLW Administration area	-23.763045	148.879552	Permian Coal
MB19BWM27P	North. East, Co-located with 07A, 25P and VWP19BWM01	-23.709180	148.854548	Permian Coal
MB20BWM03P2	Southeast of Bonnie Doon	-23.614244	148.827917	Permian Coal
MB21	South of Duck Pond	-23.943795	148.816910	Tertiary Sediments

Figure 6. Groundwater monitoring locations



Attachment 9 – Interim Groundwater Quality Trigger Levels

Table 1

Quality characteristic	Units	Monitoring Bore*	Limit	Comment
pH (pH units)	pH units	All bores other than MB1, MB21 and MB19BWM02A	6.5 – 8.5	
Electrical Conductivity (EC)	µS/cm	All bores other than bores listed in Table 2	7,410	WQO
Sulphate	mg/L	All bores other than bores listed in Table 2	120	WQO
Nitrate	mg/L	All bores	2.9	WQO
Fluoride	mg/L	All bores	0.4	WQO
Dissolved Aluminium	µg/L	All bores	55	ANZG 2018
Dissolved Antimony	µg/L	All bores	9	ANZG 2018
Dissolved Arsenic	µg/L	All bores	13	ANZG 2018
Dissolved Boron	µg/L	All bores	940	ANZG 2018
Dissolved Cadmium	µg/L	All bores	0.2	ANZG 2018
Dissolved Iron	µg/L	All bores other than bores listed in Table 2	280	ANZG 2018
Dissolved Manganese	µg/L	All bores	540	Site-specific
Dissolved Mercury	µg/L	All bores	0.06	ANZG 2018
Dissolved Molybdenum	µg/L	All bores	5	Site-specific
Dissolved Nickel	µg/L	All bores	11	ANZG 2018
Dissolved Selenium	µg/L	All bores	5	ANZG 2018
Dissolved Uranium	µg/L	All bores	0.5	ANZG 2018
Dissolved Vanadium	µg/L	All bores	6	ANZG 2018
Dissolved Zinc	µg/L	All bores	8	ANZG 2018
Total Recoverable Hydrocarbons (C6-C10)	µg/L	All bores	20	
Total Recoverable Hydrocarbons (>C10-C40)	µg/L	All bores	100	
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).*
- *Interim trigger levels for metals and metalloids apply to dissolved results.*
- *ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection)*
- *WQO – Fitzroy Basin Groundwater Zone 36.*
- **Bore specific interim trigger levels may apply (See Table 2 below)*

Table 2 Site-specific bore interim trigger levels

Quality characteristics	Unit	Trigger Levels									
		MB1	MB18	MB21	MB19BWM02A	MB19BWM01P	MB19BWM08P	MB19BWM27P	MB20BWM03P2	BG-1	BG-2
pH	pH units	6.3 – 7.4	As per Table 1 above.	6.1 – 7.1	6.0 – 8.5	As per Table 1 above.	As per Table 1 above.	As per Table 1 above.	As per Table 1 above.	As per Table 1 above.	As per Table 1 above.
Electrical Conductivity (EC)	µS/cm	39,560	18,590	15,890	37,860	26,430	5,500	15,190	20,180	15,780	18,170
Sulphate	mg/L	415	8	600	515	11	5	0.5	1	140	1,510
Dissolved Iron	µg/L	6,275	2,630	3,875	630	2,125	322	1,885	1,565	190	670

Attachment 10 – Acceptable Material, Slope Grade, Slope Length and Groundcover Combinations for Relevant Structures

Heavy Clay		
Groundcover (%)	**Slope Gradient (%)**	**Maximum Slope Length (m)**
70	>15 – ≤20	340
	>20 – ≤25	200

Light Clay		
Groundcover (%)	**Slope Gradient (%)**	**Maximum Slope Length (m)**
70	>15 – ≤25	750

Fresh Permian		
Groundcover (%)	**Slope Gradient (%)**	**Maximum Slope Length (m)**
60	>15 – ≤20	500
	>20 – ≤25	380
	>25 – ≤30	240

Notes:

- *Acceptable average annual erosion rates: Clays < 5 t/ha/year; Fresh Permian <10 t/ha/year.*
- *Maximum slope lengths derived from WEPP data and as presented in Appendix 4.8a Landform Design (Appendix B).*

END OF PRCP SCHEDULE