

PRCP schedule

Environmental Protection Act 1994

PRCP schedule PRCP EPML00709113_V1

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

PRCP schedule: PRCP EPML00709113_V1

PRCP schedule holder(s)

Name(s)	Registered address
TEC Coal Pty Ltd	Level 2, 180 Ann Street BRISBANE CITY QLD 4000 Australia

Location details

Location(s)
ML6674

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.

Alison O'Brien

Signature

23/01/2024

Date

Alison O'Brien
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Business Centre Coal
PO Box 3028, Emerald QLD 4720
(07) 4987 9320
CRMining@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

Pursuant to section 202E of the EP Act, if there is an inconsistency between an environmental authority and a PRCP schedule, the environmental authority prevails to the extent of the inconsistency.

Pursuant to section 285 of the EP Act:

- the holder of a PRCP schedule must commission an audit of the schedule by a rehabilitation auditor for the following periods (each an audit period) —
 - (a) the 3-year period starting on the day the schedule takes effect
 - (b) each 3-year period starting on the day after the previous audit period ended.
- the holder must, within 4 months after the end of each audit period, give the administering authority -
 - (a) the rehabilitation auditor's report (an audit report) about the audit that complies with section 286 of the EP Act, and
 - (b) a declaration for the audit report that complies with section 285 of the EP Act.

In addition to the requirements found in the conditions of this PRCP schedule, the holder must also meet their obligations under the environmental authority, the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the EP Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443).

PRCP schedule

The PRCP schedule incorporates the following sections:

- Section A – Conditions of PRCP Schedule
- Section B - Final Site Design and Reference Maps
- Section C – Post Mining Land Uses
- Section D – Appendix 1 – Tables
- Section E – Appendix 2 – Definitions
- Section F – Appendix 3 – Supporting Maps

Section A - Conditions of PRCP schedule

Pursuant to section 206A of the EP Act:

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

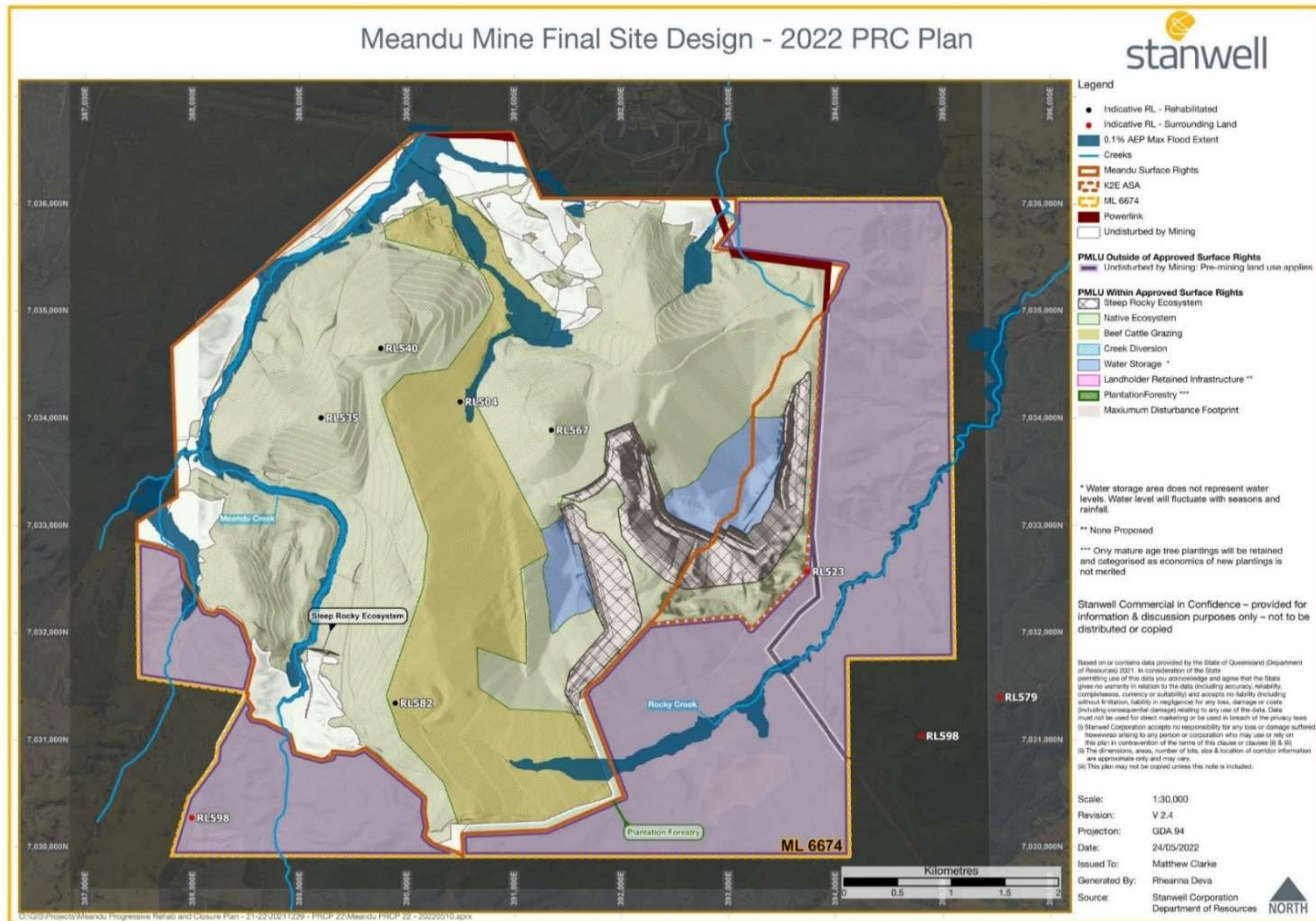
General conditions

- PRCP1** The holder, including any person acting under the holder, must comply with each rehabilitation milestone and milestone criteria stated in the schedule.
- PRCP2** Where land becomes available for rehabilitation earlier than the nominated 'Date area is available', progressive rehabilitation for that land must commence as soon as practicable. Progressive rehabilitation commenced early under this condition must be carried out in accordance with the milestones and criteria in this schedule, except that each of the dates by which milestones are to be completed is brought forward by the same amount of time as the commencement was brought forward.
- PRCP3** Where an area has achieved the final rehabilitation milestone, it must be maintained and continue to comply with the rehabilitation milestone criteria for the final milestone and continue to be in a stable condition, until the area is progressively certified according to the requirements of the EP Act, or that area is surrendered.
- PRCP4** Monitoring and maintenance must be carried out in accordance with:
- i. the monitoring and maintenance program described in the rehabilitation planning part relating to this PRCP schedule; and
 - ii. any requirement under this PRCP schedule.
- PRCP5** The holder must keep records in relation to relevant matters for a minimum of five years and provide such records to the administering authority on request. Relevant matters for this condition include, but are not necessarily limited to, the following:
- i. Rehabilitation activities and the results of these activities
 - ii. Maintenance activities and the results of maintenance activities
 - iii. Monitoring activities and the results of monitoring
 - iv. Designs, drawings, specifications or any similar documents required under the PRCP schedule
 - v. Certifications, assessments, investigations, inspections, audits or any similar processes carried out in relation to rehabilitation milestones or milestone criteria
- PRCP6** Disturbance due to exploration activities in areas not authorised to be mined must be rehabilitated in accordance with the provisions detailed in the Eligibility criteria and standard conditions for exploration and mineral development projects or its successor, with the exception that land must be rehabilitated to a stable condition* that achieves the relevant PMLU as indicated by **Figure 1: Proposed Final Site Design**.

*stable condition is defined by s111A of the *Environmental Protection Act 1994*

END OF GENERAL CONDITIONS

Section B –Final Site Design and Rehabilitation Areas



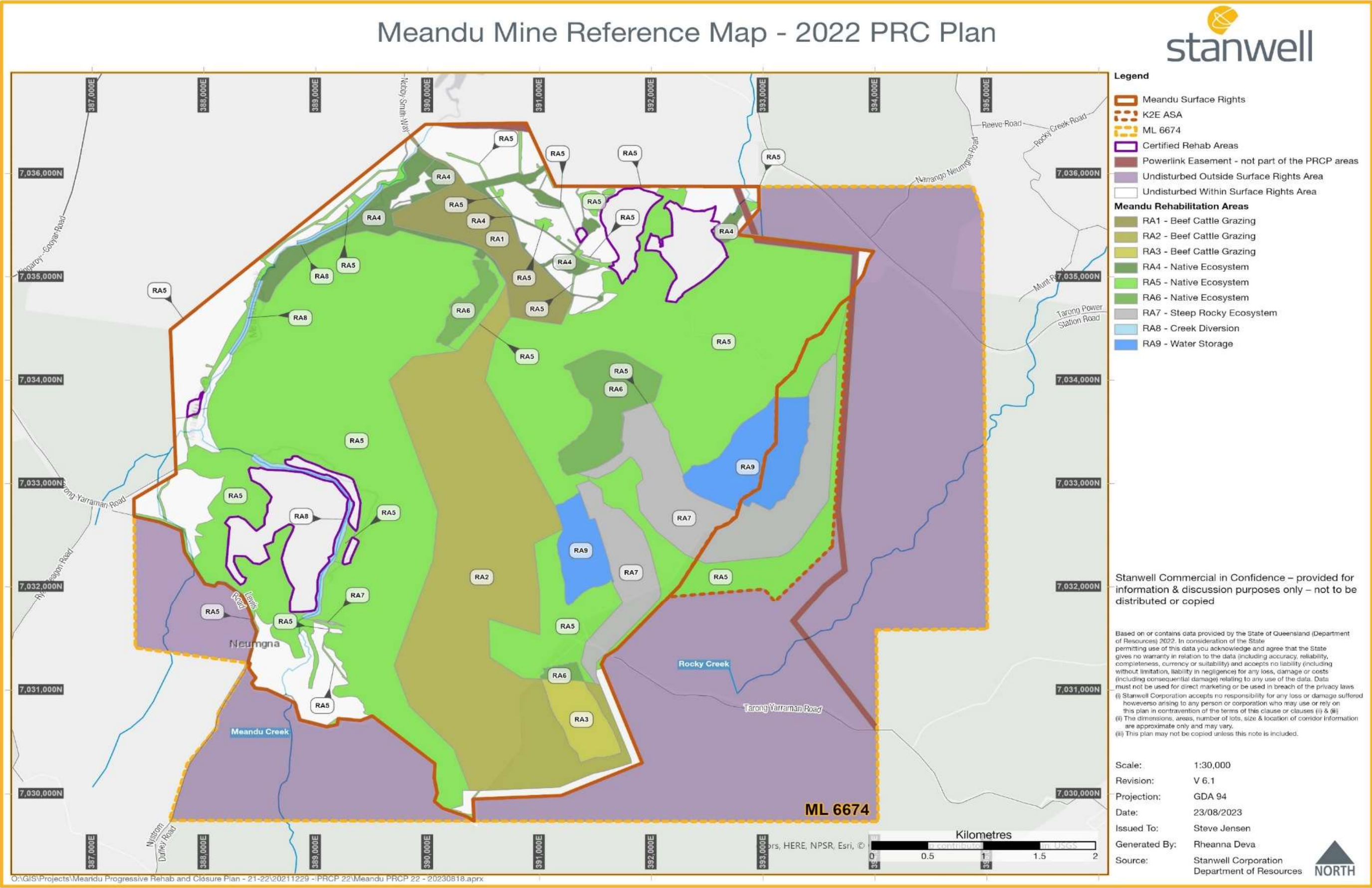


Figure 2: PRCP Schedule –Rehabilitation Areas – Meandu Mine

Section C – Post Mining Land Uses (PMLUs)

(RA1) Rehabilitation Area 1

Post-mining land uses (PMLU)										
Rehabilitation area				RA1						
Relevant activities				Infrastructure						
Total rehabilitation area size (ha)				78.15						
Commencement of first milestone: RM1				10/12/2042						
PMLU				Beef cattle grazing						
Date area is available	10/12/42									
Cumulative area available (ha)	78.15	78.15	78.15	78.15						
Milestone completed by	10/12/45	10/12/46	10/12/51	10/12/59						
Milestone Reference	Cumulative area achieved (ha)									
RM1	78.15									
RM2	78.15									
RM4		78.15								
RM5		78.15								
RM6		78.15								
RM7			78.15							
RM8				78.15						
RM9				78.15						

(RA2) Rehabilitation Area 2

Post-mining land uses (PMLU)										
Rehabilitation area					RA2					
Relevant activities					General mining activity					
Total rehabilitation area size (ha)					445.83					
Commencement of first milestone: RM4					10/12/2029					
PMLU					Beef Cattle Grazing					
Date area is available	10/12/29	10/12/34	10/12/39	10/12/43						
Cumulative area available (ha)	104.87	155.75	336.6	445.83	445.83	445.83				
Milestone completed by	10/12/31	10/12/36	10/12/41	10/12/46	10/12/51	10/12/59				
Milestone Reference	Cumulative area achieved (ha)									
RM4	104.84	155.75	336.6	445.83						
RM5	104.84	155.75	336.6	445.83						
RM6	104.87	155.75	336.6	445.83						
RM7		104.87	155.75	336.6	445.83					
RM8			104.87	155.75	336.6	445.83				
RM9						445.83				

(RA3) Rehabilitation Area 3

Post-mining land uses (PMLU)										
Rehabilitation area				RA3						
Relevant activities				Ash and tailings storage						
Total rehabilitation area size (ha)				31.84						
Commencement of first milestone: RM3				10/12/2041						
PMLU				Beef Cattle Grazing						
Date area is available	10/12/41									
Cumulative area available (ha)	31.84	31.84	31.84	31.84						
Milestone completed by	10/12/44	10/12/46	10/12/51	10/12/59						
Milestone Reference	Cumulative area achieved (ha)									
RM3	31.84									
RM4		31.84								
RM5		31.84								
RM6		31.84								
RM7			31.84							
RM8				31.84						
RM9				31.84						

(RA4) Rehabilitation Area 4

Post-mining land uses (PMLU)										
Rehabilitation area				RA4						
Relevant activities				Infrastructure						
Total rehabilitation area size (ha)				67.39						
Commencement of first milestone: RM1				10/12/2036						
PMLU				Native Ecosystem						
Date area is available	10/12/36		10/12/42							
Cumulative area available (ha)	12.05	12.05	67.39	67.39	67.39	67.39				
Milestone completed by	10/12/39	10/12/41	10/12/45	10/12/46	10/12/51	10/12/59				
Milestone Reference	Cumulative area achieved (ha)									
RM1	12.05		67.39							
RM2	12.05		67.39							
RM4		12.05	12.05	67.39						
RM5		12.05	12.05	67.39						
RM6		12.05	12.05	67.39						
RM7				12.05	67.39					
RM8						67.39				
RM9						67.39				

(RA5) Rehabilitation Area 5

Post-mining land uses (PMLU)								
Rehabilitation area				RA5				
Relevant activities				General mining activity				
Total rehabilitation area size (ha)				1294.61				
Commencement of first milestone: RM4				10/12/2021				
PMLU				Native Ecosystem				
Date area is available	10/12/21	10/12/24	10/12/29	10/12/34	10/12/39	10/12/42		
Cumulative area available (ha)	449.08	568.83	660.85	716.67	905.78	1294.61	1294.61	1294.61
Milestone completed by	10/12/23	10/12/26	10/21/31	10/12/36	10/12/41	10/12/46	10/12/51	10/12/59
Milestone Reference	Cumulative area achieved (ha)							
RM4	449.08	568.83	660.85	716.67	905.78	1294.61		
RM5	449.08	568.83	660.85	716.67	905.78	1294.61		
RM6	449.08	568.83	660.85	716.67	905.78	1294.61		
RM7		449.08	568.83	660.85	716.67	905.78	1294.61	
RM8				449.08	568.83	660.85	716.67	1294.61
RM9								1294.61

(RA6) Rehabilitation Area 6

Post-mining land uses (PMLU)										
Rehabilitation area				RA6						
Relevant activities				Ash and tailings storage						
Total rehabilitation area size (ha)				79.49						
Commencement of first milestone: RM3				10/12/2021						
PMLU				Native Ecosystem						
Date area is available	10/12/21	10/12/21	10/12/32	10/12/37	10/12/41					
Cumulative area available (ha)	13.89	13.89	71.31	74.67	79.49	79.49	79.49			
Milestone completed by	10/12/26	10/12/31	10/12/36	10/12/41	10/12/46	10/12/51	10/12/59			
Milestone Reference	Cumulative area achieved (ha)									
RM3	13.89		71.31	74.67	79.49					
RM4		13.89	71.31	74.67	79.49					
RM5		13.89	71.31	74.67	79.49					
RM6		13.89	71.31	74.67	79.49					
RM7			13.89	71.31	74.67	79.49				
RM8					13.89	71.31	79.49			
RM9							79.49			

(RA7) Rehabilitation Area 7

Post-mining land uses (PMLU)										
Rehabilitation area				RA7						
Relevant activities				Excavated highwalls (general mining activity)						
Total rehabilitation area size (ha)				204.02						
Commencement of first milestone: RM4				10/12/2037						
PMLU				Steep Rocky Ecosystem						
Date area is available	10/12/37									
Cumulative area available (ha)	204.42	204.42	204.42							
Milestone completed by	10/12/41	10/12/46	10/12/59							
Milestone Reference	Cumulative area achieved (ha)									
RM4	204.02									
RM6	204.02									
RM7		204.02								
RM8			204.02							
RM9			204.02							

(RA8) Rehabilitation Area 8

Post-mining land uses (PMLU)										
Rehabilitation area				RA8						
Relevant activities				Meandu Creek Diversion - South, Central and North (general mining activity)						
Total rehabilitation area size (ha)				18.98						
Commencement of first milestone: RM7				10/12/2031						
PMLU				Creek Diversion						
Date area is available	10/12/31	10/12/36	10/12/41							
Cumulative area available (ha)	11.35	14.82	18.98	18.98						
Milestone completed by	10/12/36	10/12/41	10/12/51	10/12/59						
Milestone Reference	Cumulative area achieved (ha)									
RM7	11.35	14.82	18.98							
RM8		11.35	14.82	18.98						
RM9				18.98						

(RA9) Rehabilitation Area 9

Post-mining land uses (PMLU)										
Rehabilitation area				RA9						
Relevant activities				K2E final void, K4E final void (general mining activity)						
Total rehabilitation area size (ha)				107.44						
Commencement of first milestone: RM4				10/12/2038						
PMLU				Water Storage						
Date area is available	10/12/38									
Cumulative area available (ha)	107.44	107.44	107.44							
Milestone completed by	10/12/41	10/12/51	10/12/59							
Milestone Reference	Cumulative area achieved (ha)									
RM4	107.44									
RM7		107.44								
RM8			107.44							

Rehabilitation Area Milestones

Milestone reference	Rehabilitation milestone	Milestone criteria
RM1	Infrastructure decommissioning and removal	1. With the exception of where infrastructure is agreed to be retained by the landholder as evidenced by a signed landholder agreement, the following are complete: a. Services disconnected, terminated and removed. b. Buildings and associated infrastructure demolished and removed. c. Concrete, hardstands and roads (bitumen, blue metal, aggregate etc) removed. d. Infrastructure (pipelines, powerlines, fencing, signage etc) removed. e. Non-retained boreholes decommissioned and rehabilitated. f. Machinery and equipment not required for rehabilitation removed. Note: For clarity, RM1 is not applicable to the private road linking Nobby Smith Way to the Beef Cattle Grazing area. This is essential infrastructure (refer to Section 4.1.1.6) to provide all weather vehicle access and remains in place as part of the Beef Cattle Grazing PMLU (subject to landholder agreement).
RM2	Investigation and/or remediation of contaminated land	1. Contaminated and hazardous material either remediated in-situ or removed/transported to an approved landfill for disposal and waste tracking information recorded and submitted. 2. Contaminated land assessment undertaken by an appropriately qualified person (AQP) indicates that the site is suitable for the post-mining land use. If required, Contaminated Land Investigation Document (CLID) will be prepared on the approved form site investigation report including a site suitability statement must be prepared and submitted in accordance with the provisions of Section 389 of the EP Act.
RM3	Installation of cover system over coal combustion products, and tailings storage facilities	1. Prepare engineering and design plans for cover systems to be installed on coal combustion products and coal tailings that achieve the following criteria: a. >2m of Non-acid Forming (NAF) material cover over coal combustion products; b. >6m of NAF material cover over coal tailings; c. cover materials are not capable of generating AMD, NMD or SMD; and d. capping layer surface is free draining and does not display surface ponding.

		2. A validation sampling report must be prepared by an AQP that demonstrates via validation testing and assessment that the material used for capping material is not capable of generating NMD, SMD or AMD. 3. Complete an as constructed engineering report for each cover system that has been certified by an AQP that capping system is built/installed as per design.
RM4	Landform development and reshaping	<u>Generic milestone criteria that apply to all applicable PMLUs:</u> 1. Landform design achieves a Factor of Safety (FoS) $\geq 1.5^*$ for landform designs. 2. For spoil landforms constructed during or before 2016 identified in Figure 2, there is no surface expression of Potentially Acid Forming (PAF) material. 3. For spoil landforms constructed after 2016 identified in Figure 2, all material in the upper 6m is NAF. 4. Bulk earthworks completed to tolerance of $\pm 2\text{m}$. 5. Contaminated sediment removed from dams and sumps and disposed of appropriately. 6. Plastic and geofabric liners have been removed from all dams and sumps. and disposed of appropriately. <u>Additional PMLU specific criteria for Beef Cattle Grazing (RA1, RA2, RA3):</u> 7. Modal terrain slope, with $\geq 80\%$ of slopes $\leq 15\%$ gradient, and no slopes to exceed 25% gradient. <u>Additional PMLU specific criteria for Native Ecosystem (RA4, RA5, RA6):</u> 8. Modal terrain slope with $\geq 50\%$ of slopes $\leq 17\%$ gradient. <u>Additional PMLU specific criteria for Steep Rocky Ecosystem (RA7):</u> 9. Modal terrain slope with gradients up to 80 degrees. <u>Additional PMLU specific criteria for Water Storage (RA9):</u> 10. Assessed and certified by an AQP as achieving a stable landform with access/egress provided at $\leq 15\%$ gradient. <i>* For the steep rocky ecosystem PMLU, the FoS assessment is at the projected stable crest.</i>
RM5	Surface preparation	1. Prior to the application of topsoil, erosion & subsidence has been remediated.

		- Topsoil that meets or has been ameliorated to meet the chemical properties in Table 1, Appendix 1: Topsoil suitability guide and has been spread to an average minimum thickness of 0.2m (based on topsoil placement records of volume over area prior to ripping). - Topsoiled areas have been deep ripped on contour.
RM6	Revegetation	<u>Generic milestone criteria that apply to all applicable PMLUs (excluding RA7 Steep Rocky Ecosystem):</u> - Apply fertiliser as determined from soil testing and plant use requirements. <u>PMLU specific criteria for Beef Cattle Grazing (RA1, RA2, RA3):</u> - Sow a seed mix (species and rate) in accordance Table 2, Appendix 1: Beef cattle grazing PMLU species list and sowing rate. <u>PMLU specific criteria for Native Ecosystem (RA4, RA5, RA6):</u> - Sow a seed mix (species and rate) in accordance with Table 3, Appendix 1: Native ecosystem PMLU tree, shrub, groundcover and grass seed mix to achieve a vegetation community that is a hybrid of RE 12.9–10.7a. <u>PMLU specific criteria for Steep Rocky Ecosystem:</u> - Sow a seed mix (species and rate) in accordance with Table 4, Appendix 1: Steep rocky ecosystem PMLU tree, shrub and grass seed list, to supplement natural vegetation growth that is assessed against species diversity at site-specific analogue sites.
RM7	Achievement of initial surface requirements	<u>Generic milestone criteria that apply to all applicable PMLUs:</u> - Rehabilitation (assessed as constructed) is geotechnically stable with a FoS $\geq 1.5^*$. - Rehabilitation is non-polluting of surface water. Representative surface water quality monitoring at, but not limited to, locations specified in Table 7, Appendix 1 achieves water quality objectives for: - pH; and - EC ($\mu\text{S}/\text{cm}$). - The events are based on when site receives >10mm of rainfall during one rain event. - Sampling must be undertaken within 24 hours of the rainfall event ceasing. - Water quality objectives:

		• pH: 5.5-9.0; and • EC: <2,500 $\mu\text{S}/\text{cm}$. 3. Groundwater monitoring of bores specified in Table 9, Appendix 1 for Standing Water Level to assess for rainfall recharge or infiltration and effectiveness of capping and rehabilitation. 4. No active moderate or severe gully erosion in accordance with Table 5, Appendix 1, with no surface exposure of underlying PAF material. Additional RA specific criteria for RA 3 and RA 6 5. Covers have a design surface gradient of $\geq 0.5\%$. Additional PMLU specific criteria for Beef Cattle Grazing (RA1, RA2, RA3): 6. Rehabilitation is erosionally stable with persistent ground cover: a. Vegetation cover >50% with modal slopes less than 15%. b. Vegetative ground cover to consist of >75% sown pasture species (i.e., legumes and 3P grasses). c. Vegetative ground cover to consist of <10% invasive plants (i.e., weeds of national significance). 7. Land suitability class for cattle grazing of 3 or better. Additional PMLU specific criteria for Native Ecosystem (RA4, RA5, RA6): 8. Rehabilitation is erosionally stable with persistent ground cover including rooted vegetative matter, organic litter and rock <200 mm: a. >50% for modal slope gradients $\leq 18\%$, or b. >80% for modal slope gradients >18%. 9. Presence of native plant species richness (similar to RE 12.9-10.7a): a. Trees ≥ 4 b. Shrubs ≥ 6 c. Grass ≥ 4 10. Perennial grass & organic litter cover $\geq 25\%$. 11. Invasive plant cover $\leq 25\%$. Additional PMLU specific criteria for Steep Rocky Ecosystem: 12. Presence of bare and vegetated land surfaces with native plant species richness: a. Trees ≥ 2
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		b. Shrubs ≥ 2 c. Grass ≥ 3 13. Perennial grass & organic litter cover $\geq 10\%$. 14. Invasive plant species $\leq 25\%$. 15. Safety demarcation or other effective barrier has been established around the highwalls to limit human and stock access, as per Figure 4, Appendix 3: a. Access will be restricted to the K2E and K4E pit crests using fencing (including existing boundary fence where applicable) and gated access where appropriate. b. For other excavated walls access will be restricted using bunding and/or large rocks, as recommended by an AQP. c. Warning signage every 100m on the perimeter fence. <u>Additional PMLU specific criteria for Creek Diversion:</u> 16. Retain records of as-built drawings. 17. Prepare assessment report by an AQP in accordance with, or otherwise against, ACARP[^] (C20017, 2014) criteria, certifying that historical creek diversions are operating in a satisfactory state. <u>Additional PMLU specific criteria for Water Storage:</u> 18. Water storages contain water of a suitable quality for native wildlife and/or livestock ingestion by achieving the water quality objectives outlined in Table 6, Appendix 1. <i>* For the steep rocky ecosystem PMLU, the FoS assessment is at the projected stable crest</i> [^] Specifically Section 3.0 – Evaluation of diversion performance (e.g., pre-ACARP Criteria) and Attachment A – Diversion Evaluation Framework
RM8	Achievement of PMLU to stable condition	<u>Generic milestone criteria that apply to all applicable PMLUs</u> 1. Review of risk assessment confirms that safety hazards in rehabilitation areas are not significantly different to surrounding unmined landscapes subject to the same land use. 2. Certification by an AQP that landform is geotechnically stable with a FoS $\geq 1.5^*$. 3. No active moderate or severe gully erosion in accordance with Table 5, Appendix 1 with no surface exposure of underlying PAF material.

		<u>Additional PMLU specific criteria for Beef Cattle Grazing (RA1, RA2, RA3):</u> 4. Certification that rehabilitation is erosionally stable with persistent ground cover: a. Vegetation cover >70% with modal slopes ≤15%. b. Vegetative ground cover to consist of >75% sown pasture species (i.e., legumes and 3P grasses). c. Ground cover to consist of <10% of invasive plants (i.e., weeds of national significance). 5. Achieves land suitability class for beef cattle grazing of 3 or better. <u>Additional PMLU specific criteria for Native Ecosystem (RA4, RA5, RA6):</u> 6. Certification that rehabilitation is erosionally stable with persistent vegetation cover and organic material: a. >70% for modal slope gradients ≤18% b. >80% for modal slope gradients >18%. 7. Native plant species richness similar to RE 12.9-10.7a: a. Trees ≥4 b. Shrubs ≥6 c. Grass ≥4
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		<u>Additional PMLU specific criteria for Steep Rocky Ecosystem:</u> 8. Native plant species richness a. Trees ≥ 2 b. Shrubs ≥ 2 c. Grass ≥ 3 9. Perennial grass & organic litter cover $\geq 10\%$. 10. Invasive plant species $\leq 25\%$. 11. Safety demarcation or other effective barrier has been established around the highwalls to limit human and stock access, as per Figure 4, Appendix 3: a. Access will be restricted to the pit crest using fencing (including existing boundary fence where applicable) and gated access where appropriate. b. For other excavated walls (i.e., south-west high wall), access will be restricted using bunding and/or large rocks, as deemed suitable by hazard assessment. c. Warning signage every 100m on the perimeter fence. <u>Additional PMLU specific criteria for Creek Diversion:</u> 12. Prepare a current assessment report by an AQP in accordance with, or otherwise against, ACARP[^] (C20017, 2014) criteria, certifying that historical creek diversions are operating in a satisfactory state. <u>Additional PMLU specific criteria for Water Storage:</u> 13. Certification by an AQP that monitoring of water storages demonstrates water quality is suitable for native wildlife and/or livestock ingestion and achieves the water quality objectives outlined in Table 6, Appendix 1 for a minimum of 5 years. <u>Additional PMLU specific criteria for Landholder Retained Infrastructure:</u> 14. Legally binding agreement, for retained infrastructure, executed by both parties. <u>For the relevant drainage area upgradient of CP3:</u> 15. Aquatic ecology (i.e., aquatic habitat and riparian vegetation) health monitoring is undertaken every 3 years in Meandu Creek, between RD10 and RD1, which shows an improvement over the 3 years, or is similar to, other ephemeral waterways in the region.
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		16. Biannual groundwater monitoring in the North-West Backfilled Void (NWBV) shows groundwater levels are below RL 432.7, at bores GW48 & GW49. 17. No visible seepage expressing to the surface at Bullgang Drain and Ramp 7. <i>* For the steep rocky ecosystem PMLU, the FoS assessment is at the projected stable crest.</i> <i>^ Specifically Section 3.0 – Evaluation of diversion performance (e.g., pre-ACARP Criteria) and Attachment A – Diversion Evaluation Framework.</i>
RM9	Achievement of PMLU to stable condition	1. Certification by an AQP that rehabilitation is non-polluting of surface water and achieves water quality criteria of: a. pH: 5.5-9.0; and b. EC: <2,037 µS/cm 2. Surface water quality must be monitored within 24 hours of flow at, but not limited to, downstream locations specified in Table 7, Appendix 1 and achieves water quality limits outlined in Table 8, Appendix 1 for a continuous period of at least five (5) years. 3. For a minimum of five consecutive years groundwater quality must be monitored quarterly at, but not limited to, monitoring bores specified in Table 9, Appendix 1 for all quality characteristics listed in Table 10, Appendix 1. 4. Groundwater quality results must not exceed the limits in Table 10, Appendix 1 for 3 consecutive results. 5. Groundwater monitoring of bores specified in Table 9, Appendix 1 for Standing Water Level to assess for infiltration and effectiveness of capping and rehabilitation.

Section D – Appendix 1: Tables

Table 1: Topsoil suitability guide

Indicator	Criteria		
	Suitable, as is	Suitable with amendment	Not suitable
Acidity as pH _{1:5}	5.0-9.0	4.5-5, lime needed	<4.5 or >9
Salinity as <i>Ece</i> (dS/m)	≤4	n/a	>4
Sodicity as <i>ESP</i> (%)	≤6	6-15, gypsum, lime or other calcium-rich ameliorant needed	>15

Table 2: Beef cattle grazing PMLU species list and sowing rate* (Source: Meandu PRC Plan V1 2023 Appendix L Table 4-3)

Scientific name	Common name	Rate (kg/ha)
<i>Chloris ayana</i> cv. Katambora	Rhodes grass (coated)	3
<i>Bothriochloa insculpta</i>	Bisset creeping blue grass (coated)	5
<i>Panicum maximum</i> var. <i>trichoglume</i>	Green panic	2
<i>Panicum maximum</i>	Gatton panic	2
<i>Neonotonia wightii</i> cv. Cooper	Cooper glycine	3
<i>Medicago sativa</i> cv. Sardi7	Sardi7 lucerne	2
<i>Medicago truncatula</i>	Barrel medic	2
<i>Echinochloa utilis</i>	Japanese millet	5
	Total	24

* Where seed for a specific species is not available in sufficient quality or quantity as listed in this table, it will be supplemented by the equivalent weight of a comparable species to achieve a mixed-sward pasture.

Table 3: Native ecosystem PMLU tree, shrub, groundcover and grass seed mix* (Source: Meandu PRC Plan V1 2023 Appendix L Table 4-1 and 4-2)

Scientific name	Common name	Sowing rate (kg/ha)
<i>Acacia macradenia</i>	Zig Zag Wattle	0.10
<i>A. fimbriata</i>	Brisbane Golden Wattle	0.10
<i>A. implexa</i>	Lightwood	0.10
<i>A. nerifolia</i>	Oleander Wattle	0.10
<i>A. leiocalyx</i>	Early Flowered Black Wattle	0.10
<i>Corymbia citriodora</i> ssp. <i>Variegata</i>	Spotted Gum	0.50
<i>Eucalyptus crebra</i>	Narrow Leaved Ironbark	0.40
<i>E. melanoleuca</i>	Yarraman Ironbark	0.30
<i>E. melanophloia</i>	Silver Leaved Ironbark	0.30
<i>E. moluccana</i>	Gum Topped Box	0.20
<i>E. tereticornis</i>	Blue Gum	0.40
<i>Allocasuarina littoralis</i>	Black She-Oak	0.40
<i>Alphitonia excelsa</i> (clean seed)	Red-Ash	0.40
<i>Angophora leiocarpa</i>	Smooth Barked Apple	0.20
<i>Lophostemon confertus</i>	Brushbox	0.40
<i>Cassinia laevis</i>	Cough Bush	0.10
<i>Dodonaea viscosa</i>	Hop Bush	0.20
<i>Grewia latifolia</i>	Dysentary Plant	0.15
<i>Indigofera australis</i>	Indigo	0.15
<i>Denhamia bilocularis</i>	Orangebark	0.10
<i>Crotalaria mitchelli</i> ssp. <i>Mitchelli</i>	Rattle pod	0.10
<i>Jasminum simplicifolium</i> / <i>Hardenbergia violacea</i>	Stiff Jasmine/False Coal Pea	0.05
<i>Eustrephus latifolius</i> / <i>Derris involuta</i>	Wombat Berry/Native Derris	0.05
<i>Petalostigma pubescens</i>	Quinine	0.05
<i>Pittosporum angustifolium</i>	Native Apricot	0.05
Total tree, shrub and groundcover		5.0
<i>Bothriochloa bladhii</i>	Forest Blue grass	0.6
<i>Bothriochloa decipiens</i>	Pitted Blue grass	0.4
<i>Bothriochloa macra</i>	Redleg grass	0.6
<i>Cynodon dactylon</i>	Bermuda grass	1
<i>Aristida</i> spp	Three awn grass	1
<i>Chlorus truncata</i>	Windmill grass	0.2

<i>Capillipedium spicgerum</i>	Scented Top	0.2
<i>Cymbopogon refractus</i>	Barbed Wire grass	0.2
<i>Sporobolus creba</i>	--	0.2
<i>Themeda triandra</i>	Kangaroo grass	0.6
<i>Echinochloa utilis</i>	Japanese millet	10
	Total grass groundcover	15

* Where seed for a specific species is not available in sufficient quality or quantity as listed in this table, it will be supplemented by the equivalent weight of a comparable native species from the technical descriptions for RE 12.3.3, 12.5.1, 12.5.13, 12.8.13, 12.9-10.5, 12.9-10.7, 12.9-10.16, 12.9-10.18, 12.9-10.21 and/or 12.11.7.

Table 4: Steep rocky ecosystem PMLU tree, shrub and grass seed list* (Source: Meandu PRC Plan V1 2023 Appendix L Table 4-4 and 4-5)

Scientific name	Common name	Sowing rate (kg/ha)
<i>Acacia macradenia</i>	Zig Zag Wattle	0.10
<i>A. leiocalyx</i>	Early Flowered Black Wattle	0.10
<i>Corymbia citriodora</i> ssp. <i>Variegata</i>	Spotted Gum	0.50
<i>Eucalyptus crebra</i>	Narrow Leaved Ironbark	0.40
<i>E. melanophloia</i>	Silver Leaved Ironbark	0.30
<i>E. moluccana</i>	Gum Topped Box	0.20
<i>E. tereticornis</i>	Blue Gum	0.40
<i>Alphitonia excelsa</i>	(clean seed) Red-Ash	0.40
<i>Angophora leiocarpa</i>	Smooth Barked Apple	0.20
<i>Lophostemon confertus</i>	Brushbox	0.40
<i>Petalostigma pubescens</i>	Quinine	0.05
	Total	3.05

* Where seed for a specific species is not available in sufficient quality or quantity as listed in this table, it will be supplemented by the equivalent weight of a comparable native species from the technical descriptions for RE 12.5.1, 12.5.13, 12.8.13, 12.8.17, 12.9-10.7, 12.11.6, 12.11.8, 12.11.9, 12.11.14, 12.11.18, 12.12.3, 12.12.5, 12.12.7, 12.12.23 and/or 12.12.28.

Table 5: Erosion classification framework

Type	Minor	Moderate	Severe
Gully (>0.3m depth)	Gullies are isolated, linear, discontinuous, restricted to primary or minor drainage lines.	Gullies are linear, continuous, restricted to primary or minor drainage lines.	Gullies are continuous or discontinuous, either tend to branch away from primary drainage lines and on to footslopes or have multiple branches within primary drainage lines.

Note: Assessed in accordance with *Australian Soil and Land Survey Field Handbook* (NCST 2009) (the 'Yellow Book').

Table 6: Water Storage monitoring locations, frequency and water quality objectives.

Monitoring Location	Location	Latitude (GDA2020)	Longitude (GDA2020)	Monitoring Frequency	Parameters and Water Quality Objectives
K2E Water Storage	At a safe location that is representative of the water storage water quality.	-26.81665	151.92383	Quarterly	Arsenic: ≤ 0.5 mg/L Boron: ≤ 5 mg/L Calcium: $\leq 1,000$ mg/L Cobalt: ≤ 1 mg/L Fluoride: ≤ 2 mg/L Magnesium: $\leq 2,000$ mg/L Molybdenum: ≤ 0.15 mg/L Nickel: ≤ 1 mg/L Nitrate: ≤ 400 mg/L Nitrite: ≤ 30 mg/L Selenium: ≤ 0.02 mg/L Sulfate: $\leq 1,000$ mg/L TDS: 4,000 mg/L Zinc: ≤ 20 mg/L
K4E Water Storage	At a safe location that is representative of the water storage water quality.	-26.82457	151.09079		

Notes:

- All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to total results.

Table 7: Surface Water Monitoring Locations

Monitoring points	Location	Latitude (GDA2020)	Longitude (GDA2020)
CP1^	Interception of Meandu Creek and Meandu Dam	-26.7839	151.8968
CP2^	Black Creek	-26.7955	151.9219
CP3	Meandu Creek Channel	-26.7907	151.8923

Table 8: Surface Water Quality Limits

Quality characteristic	Unit	Limit *	Source
pH	pH units	5.5 – 9.0	EA
EC	µS/cm	2,037	REMP WQO
Turbidity	NTU	25	REMP WQO
Fluoride	mg/L	2	ANZG 2018
Sulfate	mg/L	97	Baseline 80 th percentile Meandu Ck opposite RD14
Ammonia	mg/L	1.43	ANZG 2018
Nitrate	mg/L	9.8	ANZG 2018/NIWA 2013
Arsenic	µg/L	13	ANZG 2018
Boron	µg/L	940	ANZG 2018
Chromium	µg/L	1	ANZG 2018
Cobalt	µg/L	1.4	ANZG 2018
Copper	µg/L	54	REMP/ESP 2019
Iron	µg/L	300	REMP WQO
Manganese	µg/L	1,900	ANZG 2018
Molybdenum	µg/L	34	ANZG 2018
Nickel	µg/L	11	ANZG 2018
Selenium	µg/L	5	ANZG 2018
Vanadium	µg/L	10	REMP WQO/ Model Mining Conditions
Zinc	µg/L	8	EA / ANZG 2018
Major ions*	mg/L	Interpretation only	N/A

Notes:

- All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- If chromium is exceeded, chromium speciation analysis should be done to enable comparison against separate Cr(III) and Cr(VI) DGV's
- *Includes calcium, chloride, magnesium, potassium, sodium, bicarbonate, carbonate

Table 9: Groundwater Monitoring Bores

Monitoring Bore ID	Screened Geology	Latitude (GDA2020)	Longitude (GDA2020)
GW22	Coal Measures	-26.822999	-26.822999
GW30	Regolith	-26.799512	-26.799512
GW37	Regolith	-26.792335	-26.792335
GW38	Regolith	-26.795228	-26.795228
GW39	Meandu Creek Alluvium	-26.789639	-26.789639
GW43d	Queen Seam	-26.844095	-26.844095
GW43s	Basalt	-26.844104	-26.844104
GW46d	Queen Seam	-26.813927	-26.813927
GW46s	King Seam	-26.813909	-26.813909
GW63d	Queen Seam	-26.824679	-26.824679
GW73	Regolith	-26.794245	-26.794245
GW74	Regolith	-26.790203	-26.790203
GW86	Coal Measures	-26.795336	-26.795336
GW87d	Coal Measures	-26.808075	-26.808075
GW87s	Regolith	-26.808138	-26.808138
GW88d	Regolith	-26.802587	-26.802587
GW88s	Regolith	-26.802551	-26.802551

Table 10: Groundwater Quality Limits

Quality Characteristic	Unit	GW22	GW30	GW37	GW38	GW39	GW43d	GW43s	GW46d	GW46s	GW63d	GW73	GW74	GW86	GW87d	GW87s	GW88d	GW88s
pH	-	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5	5.5-9.5
EC	µS/cm	4,500	7,890	4,500	2,200	2,700	800	2,365	2,344	1,871	1,223	11,800	2,670	3,542	2,500	5,264	5,556	16,616
Fluoride	mg/L	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Sulfate	mg/L	200	200	41	40	207	39	71	89	79	8	860	468	105	105	152	363	460
Arsenic	µg/L	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Boron	µg/L	200	83	25	67	80	140	150	130	310	25	102	66	69	126	116	158	188
Chromium	µg/L	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cobalt	µg/L	4	22	5	5	3	1	2	1	2	1	5	14	3	1	1	1	1
Copper	µg/L	12	20	24	6	7	7	1.4	1.4	1.4	1.4	23	75	23	1.4	1.4	1.4	1.4
Iron	µg/L	Interpretation only																
Manganese	µg/L	586	700	5,810	250	331	125	216	51	130	78	1,232	3,280	394	1,900	1,900	1,900	180
Molybdenum	µg/L	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
Nickel	µg/L	11	15	11	11	11	11	11	11	11	11	11	52	11	11	11	11	11
Selenium	µg/L	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Vanadium	µg/L	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Zinc	µg/L	101	200	247	110	104	56	60	18	83	8	170	432	141	140	140	127	181
Major Ions*	mg/L	Interpretation only																

Notes:

- All metals and metalloids must be measured as 'dissolved' (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- *Includes calcium, chloride, magnesium, potassium, sodium, bicarbonate, carbonate.

Section E – Appendix 2: Definitions

1. **Appropriately qualified person (AQP)** means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods, or literature.
2. **Coal Combustion Products (CCPs)** means fly ash, furnace bottom ash or cenosphere(s) resulting from the burning of coal within coal fired power stations and coal fired boilers where at least 90% of the fuel source is coal and up to 10% of the fuel source can be biomass material (e.g. wood chip, biosolids), and where no other source of fuel is mixed other than petroleum based gas or liquid fuel for ignition support.
3. **Mixed plant rejects** includes a mixture of coarse rejects and dewatered tailings generated from coal processing at the coal handling and preparation plant.
4. **Modal slope** is defined in the Australian Soil and Land Survey Field Handbook (Third Edition) by the National Committee on Soil and Terrain (CSIRO publishing, 2009) as the most common class of slope occurring in a landform pattern.
5. **Landforms** are described as landform patterns at the broader scale while the units that make up these patterns are described as components. Speight (see Landform chapter in McDonald et al (1990) p34) describes landform patterns (broad landforms) in terms of relief, modal slope, stream channel occurrence, mode of geomorphological activity, geomorphological agent, status of geomorphology activity and component landform elements. Whilst landform elements (components of landforms) are described in terms of slope, morphological type, dimensions, mode of geomorphological activity and geomorphological agent.
6. **Invasive plant (as defined by the Biosecurity Act 2014)** -
 - (a) means a plant species that has, or is likely to have, an adverse impact on a biosecurity consideration because of the introduction, spread or increase in population size of the species in an area; and
 - (b) includes a plant species that is prohibited matter or restricted matter
7. **Acid Mine Drainage (AMD), Neutral Mine Drainage (NMD) and Saline Mine Drainage (SMD)** are defined in the GARD Guide by INAP and restricted to consideration of products of sulphide oxidation.
8. **Vegetation cover** (as described in the Sampling Vegetation Attributes Handbook (USDI Bureau of Land Management 1999)) is the percentage of ground surface covered by vegetation on a site, inclusive of foliar cover, canopy cover and basal cover.

Section F – Appendix 3: Supporting Maps

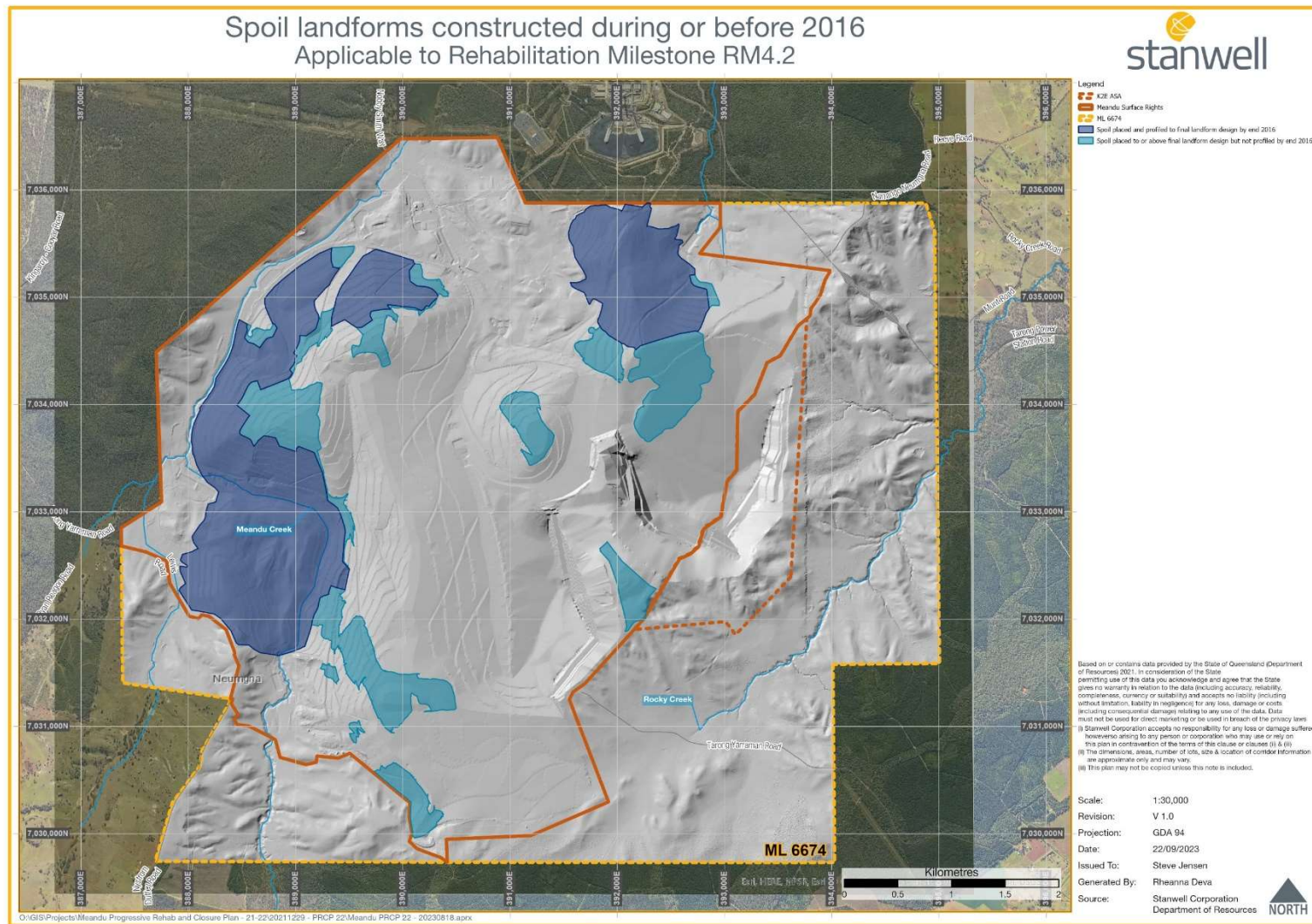


Figure 3: PRCP Schedule – Pre-2017 Rehabilitation Areas – Meandu Mine

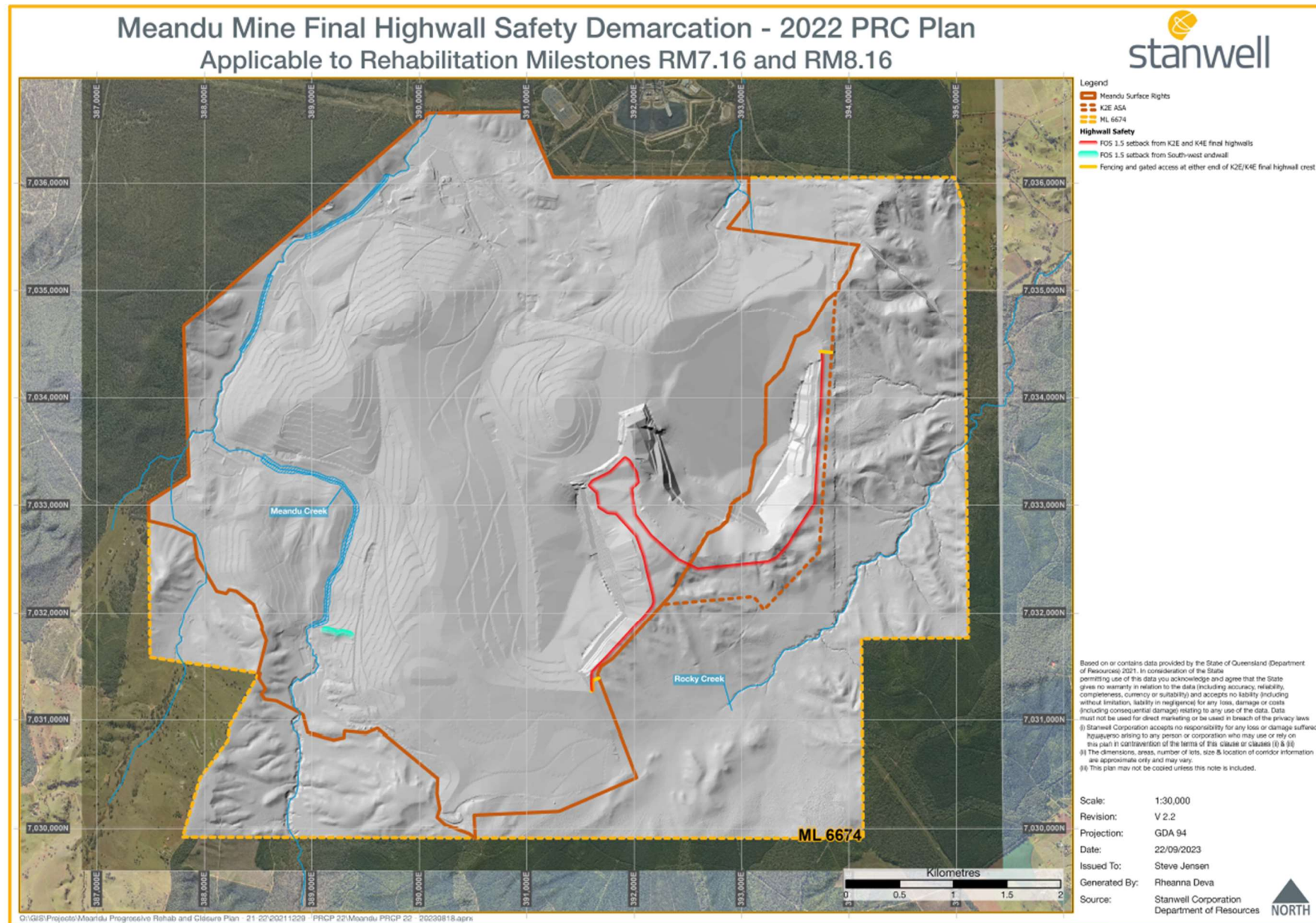


Figure 4: PRCP Schedule – Highwall Safety Demarcation – Meandu Mine

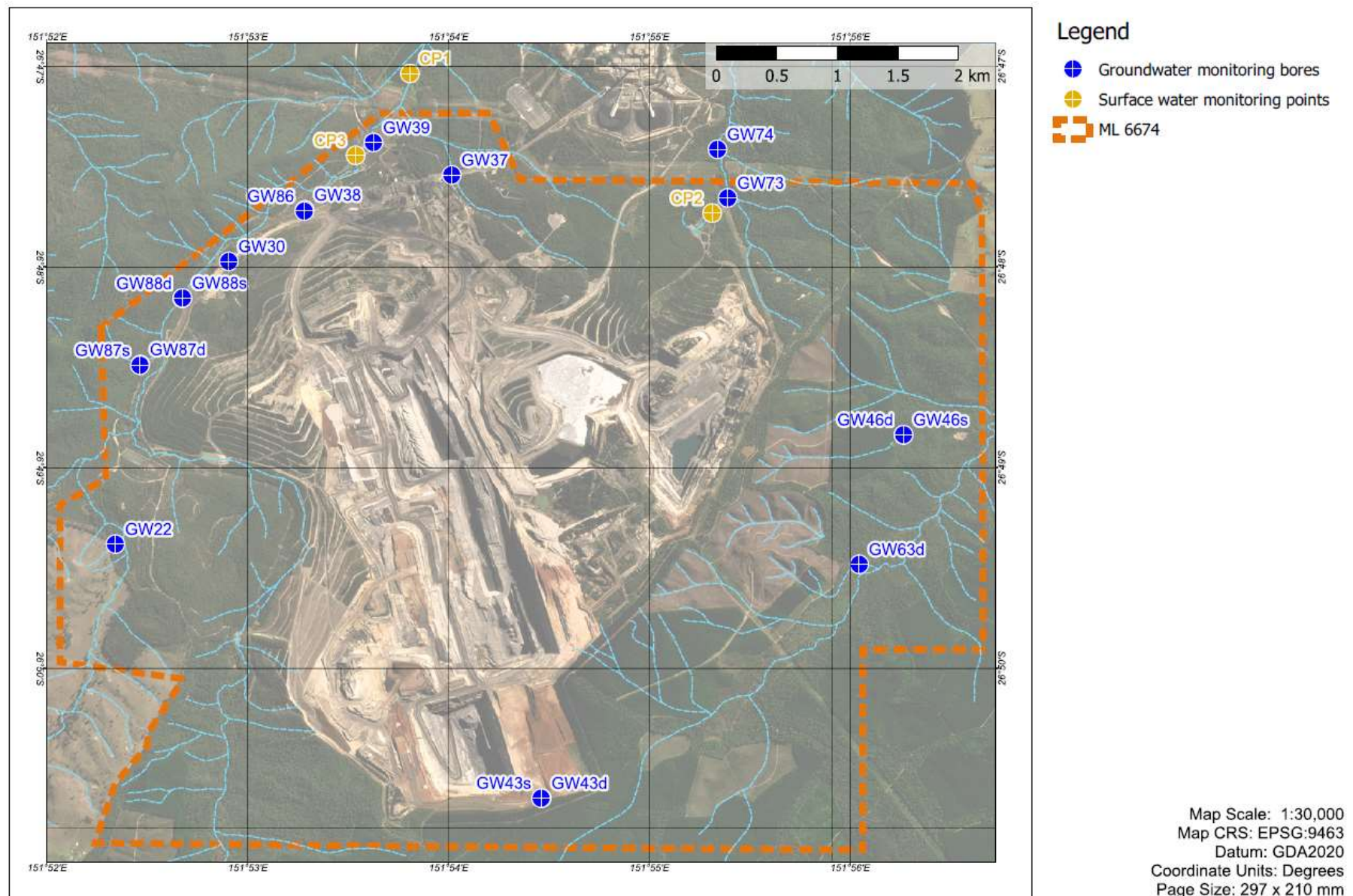


Figure 5: PRCP Schedule – Water Monitoring Locations– Meandu Mine

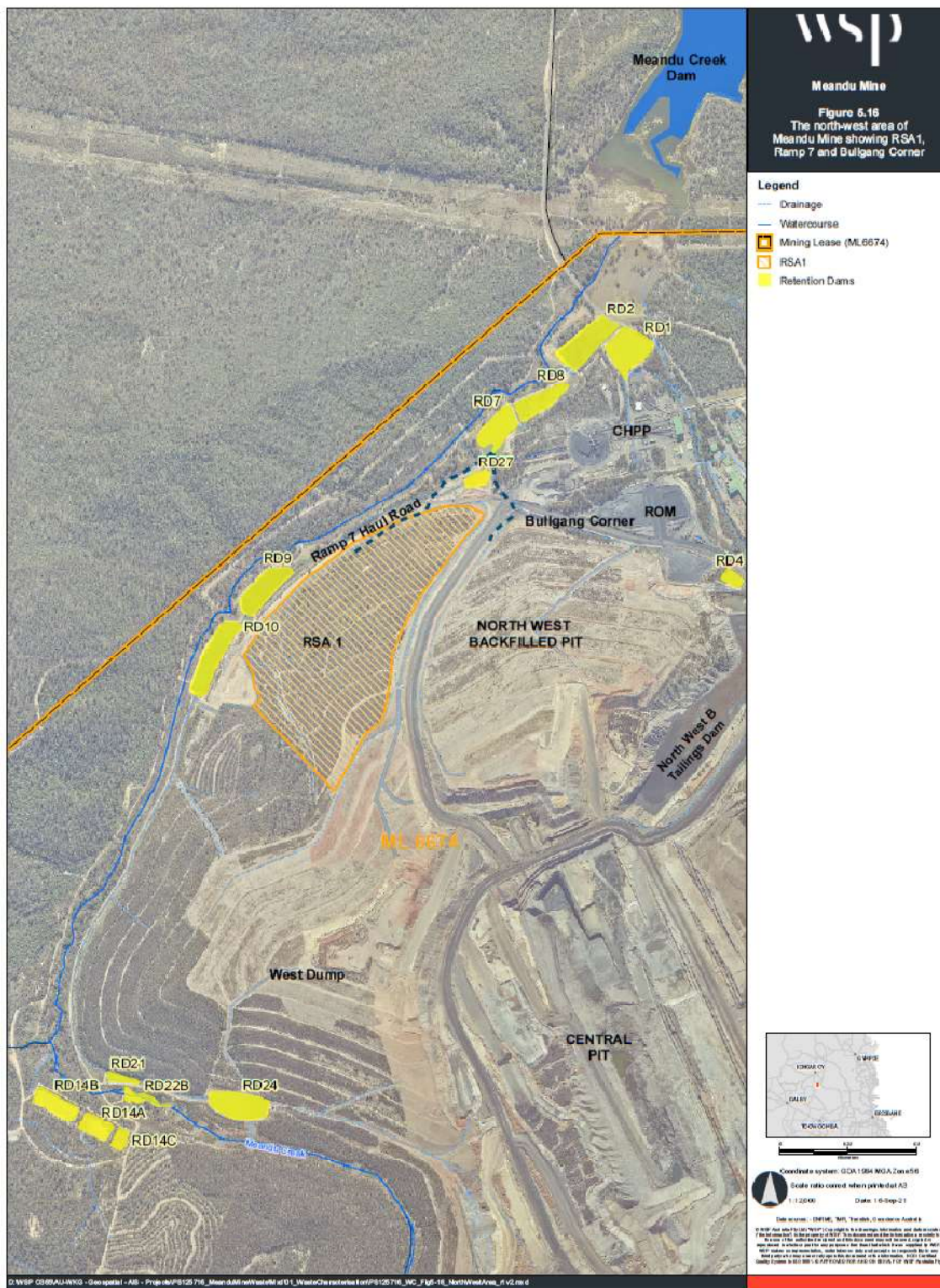


Figure 6: The north-west area of Meandu Mine showing RSA1, Ramp 7 and Bullgang Corner