

Constellation Copper Mine: Rehabilitation Management Plan

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 1 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Document Control

Name of Mine		Constellation Project		
Rehabilitation Management Plan Commencement Date		26 August 2026		
Mining Lease(s)		ML 1897	Expiry Date: 22 July 2047	
Name of lease holder(s)		Tritton Resources Pty Ltd		
Rehabilitation Management Plan revision dates, version numbers and submission dates:				
Rev	Description	Prepared By	Approved By	Date
0	Document Creation			
0.1	Final draft for Client Review	RWC		
1.0	Final Draft for Submission to Client	RWC	MF	30/08/26

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 2 of 151

Constellation Copper Mine: Rehabilitation Management Plan



CONTENTS

1	INTRODUCTION TO MINING PROJECT	6
1.1	History of Operations	7
1.1.1	Mining Activities.....	7
1.2	Current Development Consents, Leases and Licences	9
1.3	Land Ownership and Land Use	12
2	FINAL LAND USE.....	17
2.1	Regulatory Requirements for Rehabilitation	17
2.2	Final Land Use Options Assessment	23
2.3	Final Land Use Statement.....	23
2.4	Final Land Use and Mining Domains.....	23
2.4.1	Final Land Use Domains.....	24
2.4.2	Mining Domains.....	24
3	REHABILITATION RISK ASSESSMENT	26
4	REHABILITATION OBJECTIVES AND REHABILITATION COMPLETION CRITERIA.....	62
4.1	Rehabilitation Objectives and Rehabilitation Completion Criteria	62
4.2	Rehabilitation Objectives and Rehabilitation Completion Criteria – Stakeholder Consultation	72
5	FINAL LANDFORM AND REHABILITATION PLAN	73
6	REHABILITATION IMPLEMENTATION	76
6.1	Life of Mine Rehabilitation Schedule	76
6.2	Phases of Rehabilitation and General Methodologies	81
6.2.1	Active Mining Phase	81
6.2.2	Decommissioning	108
6.2.3	Landform Establishment	114
6.2.4	Growth Medium Development	122
6.2.5	Ecosystem and Land Use Establishment	125
6.2.6	Ecosystem and Land Use Development	131
6.3	Rehabilitation of Areas Affected by Subsidence.....	133
7	REHABILITATION QUALITY ASSURANCE PROCESS	134
8	REHABILITATION MONITORING PROGRAM.....	136
8.1	Analogue Site Baseline Monitoring	136
8.2	Rehabilitation Establishment Monitoring	136
8.2.1	Inspection Regime	136
8.2.2	Overview of Ecosystem Establishment Monitoring Methodology	138

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 3 of 151

Constellation Copper Mine: Rehabilitation Management Plan



8.3	Measuring Performance Against Rehabilitation Objectives and Rehabilitation Completion Criteria	138
9	REHABILITATION RESEARCH AND TRIALS	139
9.1	Current Rehabilitation Research, Modelling and Trials	139
9.2	Future Rehabilitation Research, Modelling and Trials.....	139
9.2.1	Landform Evolution Modelling	139
9.2.2	Land Contamination and Hazard Assessment	140
10	INTERVENTION AND ADAPTIVE MANAGEMENT	142
10.1	Threats to Rehabilitation.....	142
10.2	Trigger Action Response Plan	142
11	REVIEW, REVISION AND IMPLEMENTATION	148
12	REFERENCES	150

APPENDICES

Appendix 1 Rehabilitation Risk Control Checklist

FIGURES

Figure 1	Locality Plan	8
Figure 2	Approved Site Layout	10
Figure 3	Land Ownership and Residences.....	14
Figure 4	Surrounding Land Uses	15
Figure 5	Environmental Setting	16
Figure 6	Approved Final Landform	18
Figure 7	Final Land Use Domains.....	19
Figure 8	Mine Site Soil Management Units	82
Figure 9	Mine Site Plant Community Types	87
Figure 10	Schematic – WRE Construction / PAF Encapsulation	100
Figure 11	Mine Site Heritage Sites.....	107
Figure 12	WRE Conceptual Landform Profile	117
Figure 13	MWS Conceptual Landform Profile.....	119

PLANS

Plan 1	Final Landform Features	74
Plan 2	Final Landform Contours.....	75

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 4 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Plan 3	Progressive Rehabilitation Year 2	77
Plan 4	Progressive Rehabilitation Year 5	78
Plan 5	Progressive Rehabilitation Year 8	79
Plan 6	Progressive Rehabilitation Year 11	80

TABLES

Table 1	Constellation Copper Mine Existing Development Approvals	9
Table 2	Water Access Licences for Tritton Copper Operations	11
Table 3	Works Approvals for Tritton Copper Operations	11
Table 4	Land Ownership.....	12
Table 5	Regulatory Requirements for Rehabilitation	20
Table 6	Final Land Use Domains.....	24
Table 7	Mining Domains	24
Table 8	Constellation Consequence Table	26
Table 9	Qualitative Likelihood Rating	28
Table 10	Qualitative Risk Rating	28
Table 11	Residual Risk Level Action.....	29
Table 12	Rehabilitation Risk Assessment Rehabilitation Risk Assessment Summary	30
Table 13	Proposed Rehabilitation Objectives and Proposed Rehabilitation Completion Criteria	63
Table 14	Community Consultation Activities	72
Table 15	Projected / Initial Soils Material Balance	85
Table 16	Priority Weeds (Source Central West Local Land Services (2022)	89
Table 17	Pest Management Strategy	91
Table 18	NAF Interim Materials Balance and Projection	93
Table 19	Waste Storage and Disposal.....	95
Table 20	Waste Rock Characterisation	98
Table 21	Cultural Heritage Sites - Not Approved for Harm	105
Table 22	Cultural Heritage Sites Approved for Disturbance	105
Table 23	Interim Species List - Agriculture (grazing) and Native Ecosystem (grassland)	126
Table 24	Interim Native Ecosystem (Woodland) Species List.....	128
Table 25	Key Roles and Responsibilities	134
Table 26	Trigger Action Response Plan	142
Table 27	Rehabilitation Management Plan Amendment / Review Triggers	148

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	<i>This document is UNCONTROLLED once printed</i>		Page: 5 of 151

Constellation Copper Mine: Rehabilitation Management Plan



1 Introduction to Mining Project

This Rehabilitation Management Plan (RMP) has been prepared by R.W. Corkery & Co. Pty. Limited (RWC) on behalf of Tritton Resources Pty Ltd (the "Company"), a wholly owned subsidiary of Aeris Resources Limited (Aeris), for the Constellation Copper Mine (the "Mine"). The Mine is a State Significant Development (SSD) located approximately 55km northwest of Nyngan and 20km northeast of the township of Girilambone (see **Figure 1**) in western New South Wales (NSW). The principal mineral authority for the Mine is Mining Lease (ML) 1897. For the purpose of this document, the area covered by ML1897 is referred to as the "Mine Site" (see **Figure 1** and **Figure 2**).

The Company owns and operates various mines within the vicinity of Girilambone, collectively referred to as the Tritton Copper Operations (TCO). For the purposes of this RMP, the TCO consists of:

- Tritton Copper Mine (TCM);
- Constellation Copper Mine (CCM);
- Murrawombie Copper Mine (MCM);
- North East Copper Mine (NECM); and
- Avoca Tank Copper Mine (ATCM).

In general, all mines within TCO are managed in parallel where practicable; as such, many existing assessments, approvals, and management plans may apply to multiple or all mines within the TCO. This RMP relates only to the management of rehabilitation within the Mine Site (i.e. the Constellation Copper Mine). The RMP is intended to provide a summary of current plans for progressive and final rehabilitation of the Mine Site and a practical guide to rehabilitation planning for site personnel. The RMP provides the following information:

- Introduction to the Mine (Section 1).
- Final land use information including regulatory requirements (Section 2).
- A summary of the current rehabilitation risk assessment outcomes (Section 3).
- A statement of the Company's rehabilitation objectives and the completion criteria that must be satisfied before rehabilitation is considered complete (Section 4).
- Final landform plans (Section 5).
- An overview of the planned implementation of progressive and final rehabilitation (Section 6).
- A summary of how rehabilitation quality will be maintained (Section 7).
- An overview of intended rehabilitation monitoring (Section 8) and ongoing research and trials (Section 9).
- A summary of the Company's management approach including a trigger action response plan (Section 10) and procedures for review and update of the plan (Section 11)
- This RMP has been prepared in accordance with the following documents and guidelines.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 6 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Form and Way: Rehabilitation Management Plan for Large Mines (September 2025).
- Form and Way: Rehabilitation Objectives Statement, Rehabilitation Completion Criteria Statement and Final Landform and Rehabilitation Plan for Large Mines (February 2024).
- Guideline 1: Rehabilitation Risk Assessment (July 2021).
- Guideline 2: Rehabilitation Records (July 2021).
- Guideline 3: Rehabilitation Controls (July 2021).
- Guideline 5: Rehabilitation Objectives and Rehabilitation Completion Criteria (October 2025).

1.1 History of Operations

1.1.1 Mining Activities

Tritton Copper Operations

The Girilambone copper deposits were first discovered in 1879 with mining commencing in the vicinity of what is now the Girilambone village in 1881. Mining of other known deposits such as Budgerygar and Budgery (see **Figure 1**) occurred throughout 1906 to 1908 and 1920, respectively. Other minor historical mining operations are known to have occurred sporadically throughout the 20th century. Several other historic mining areas are known to be located throughout the area.

The Girilambone Copper Company (GCC), a Joint Venture between Tritton Resources Pty Ltd (60%) and Nord Pacific Ltd (40%) was formed in 1992, following development of the (then) Girilambone Copper Mine (now the MCM), to undertake mineral exploration within relatively close proximity to the existing mine.

The five mining and processing operations that comprise the TCO have been gradually developed since the late 1900's. The principal metalliferous resource for the TCO is copper, although small amounts of gold and silver ore have been mined and processed over the life of these mines. For the purposes of this document, references to copper ore include any other lawfully mined metalliferous ores.

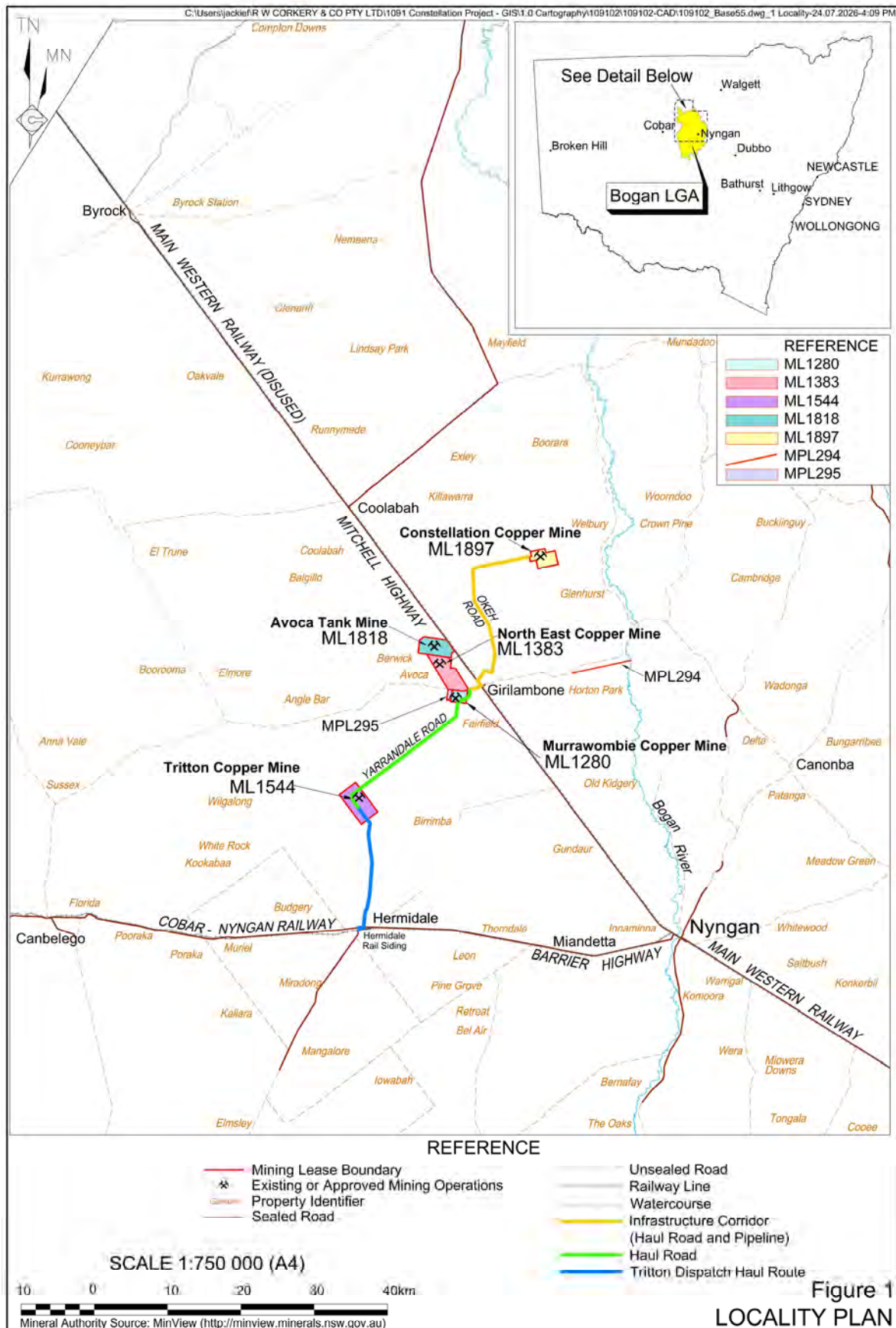
The Applicant is approved to receive up to 1.8 Mt of copper ore per year at the TCM mine site, sourced from its other operations. These operations share similar environmental settings and risks, including geological and aquifer (groundwater) characteristics, which have led to comparable management approaches and experiences, particularly in rehabilitation. Given the features of the area where the CCM is located, it is expected to mine an average of 500,000 tonnes of copper ore per annum.

Constellation Copper Mine

The Mine was approved 24 December 2025 as State Significant Development (SSD) 41579871 under Section 4.38 of the Environmental Planning and Assessment Act 1879 (EP&A Act). SSD 41579871 has been modified once since the original approval (see Section 1.2).

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 7 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 8 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Development of the Mine forms a key part of the Company's long-term strategy for the TCO by maintaining ore feed at the TCM processing facility, allowing for the continuation of the significant economic and social benefits to the local and regional communities.

The current approved layout of the Mine Site is provided in **Figure 2**. The approved operations under SSD 41579871 include but are not limited to the following.

- Extraction of ore using underground and open cut mining techniques
- Construction and use of a Waste Rock Emplacement (WRE) and Mineralised Waste Stockpile, to be retained as part of the final land form.
- Preliminary processing, sorting and handling of mined material prior to despatch.
- Despatch and haulage of up to 1 million tonnes per annum (Mtpa) of material from the Mine Site to the Tritton Copper Mine, and minor volumes of rehabilitation material to the Murrawombie Copper Mine.
- Construction and use of a Paste Fill Plant, including importation of tailings from the Tritton Copper Mine for use as paste.
- Construction and use of services, including connection to existing public and private infrastructure.

1.2 Current Development Consents, Leases and Licences

Table 1 outlines the existing development approvals for the Mine.

Table 1 Constellation Copper Mine Existing Development Approvals

Approval	DA Number	Grant Date	Expiry Date	Purpose of Approval
Development Consent	SSD 41579871	24/12/25	-	Original development consent.
MOD1	SSD 41579871	17/6/26	-	Modification to surface infrastructure prior to construction.

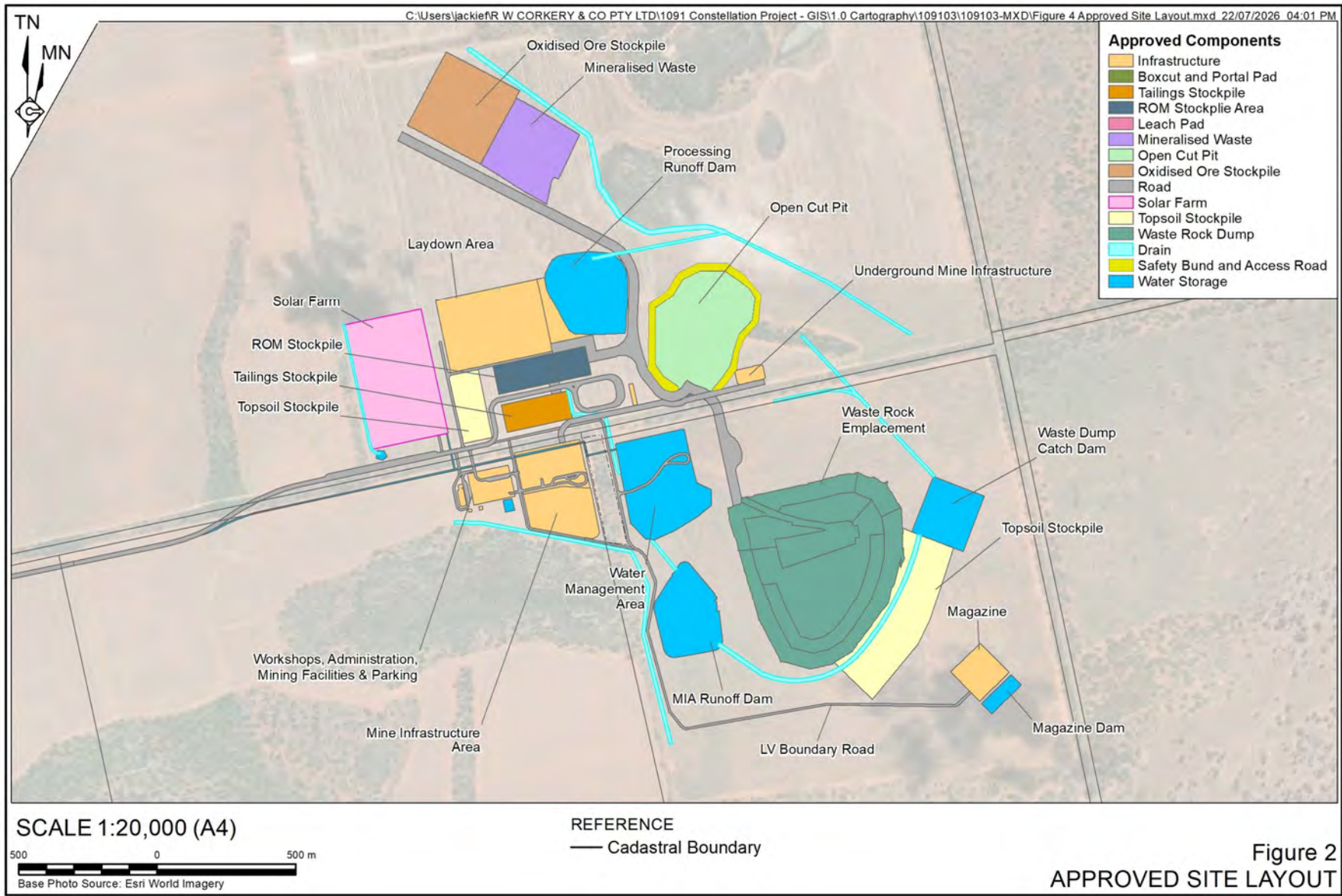
Source: Tritton Resources Pty Ltd

Other relevant leases, licences, and approvals include the following.

- Mining Lease (ML) 1897
- Environment Protection Licence (EPL) 4501.
- Various Water Access Licences (WAL) and Works Approvals (WA) presented in **Table 2** and **Table 3**.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 9 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 10 of 151

Constellation Copper Mine: Rehabilitation Management Plan



It should be noted that the various approvals under the Water Management Act 2000 may apply to individual mining operations within Tritton Copper Operations. However, as water is transferred between all operations, all relevant approvals are identified below.

Table 2 Water Access Licences for Tritton Copper Operations

WAL	Water Type	Water Source	Share	Corresponding Works Approvals
9374	High Security	Macquarie and Cudgegong Regulated Rivers Water Source	705 ML	80WA702816; 80WA704315
9375	General Security	Macquarie and Cudgegong Regulated Rivers Water Source	210 ML	80WA702816
9940	Supplementary	Macquarie and Cudgegong Regulated Rivers Water Source	16 ML	80WA702816
43405	Unregulated Water	Lower Bogan River Water Source	0 ML	80WA719370
34407	Unregulated River (Regulated Supply)	Lower Bogan River Water Source	931 ML	80WA719370
31090	Groundwater	Lachlan Fold Belt MDB Groundwater Source	30 Units (ML)	80WA716044
31041	Groundwater	Lachlan Fold Belt MDB Groundwater Source	304 Units (ML)	80WA716044; 80WA716055
31049	Groundwater	Lachlan Fold Belt MDB Groundwater Source	10 Units (ML)	80WA716017

Table 3 Works Approvals for Tritton Copper Operations

Number	Date of Approval	Date of expiry	Description
80WA702816	24/02/2005	23/02/2030	Gunningbar Creek and Bogan River Pumps
80WA716044	16/01/2012	28/05/2027	Dewatering Tritton U/G Mine
80WA716055	16/1/2012	24/11/2026	Dewatering of groundwater from pits and underground workings Murray Darling Basin Fractured Rock Groundwater Source. Murrawombie, North East and Avoca Tank Project.
80WA714556	16/1/2012	15/1/2032	TSF Groundwater Dewatering Bore (PB001).
80WA719370	4/10/2012	3/10/2035	Joint Water Supply Scheme
80WA704315	20/05/2009	30/06/2027	Offtake from Nyngan-Cobar pipeline
80WA717157	4/10/2012	4/12/2026	Gunningbar Creek Weir
40MW416861	31/03/2026	-	Miscellaneous works approval for groundwater take from the final void.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 11 of 151

Constellation Copper Mine: Rehabilitation Management Plan



1.3 Land Ownership and Land Use

Figure 1 shows the location of the Mine in the Regional and State context, as well as the location of key regional infrastructure. **Figure 3** presents land ownership in the vicinity of the proposed CCM and along with surrounding residences. Land within the Mine Site is freehold and forms part of the 'Okeh', 'Windella', and 'Gundooee' properties. **Table 4** presents the land ownership for land within Mine Site. Sections of the haul route and parts of the Infrastructure Corridor also affect the "Glendale" property (Lot 13 of DP 751311), the "Karingal" and "Einalla" properties, and the properties located on the corners of Murrawombie Road and the Mitchell Highway. Various land access agreements with property owners, consistent with the requirements of the Mining Act are held by the Company.

Table 4 Land Ownership

Lot	Deposited Plan	Tenure	Owner	Leases / Area
Mine Site				
2	751321	Freehold	Windella Property	ML1897
10	751321	Freehold	Windella Property	ML1897
9	751321	Freehold	Okeh Property	ML1897
4	751341	Freehold	Okeh Property	ML1897
2	1154714	Freehold	Okeh Property	ML1897
1	1258865	Freehold	Gundooee	ML1897
1	1256374	Freehold	Windella Property	ML1897
4	751304	Freehold	Okeh Property	Access / Haul Road
1	879749	Freehold	Okeh Property	Access / Haul Road
13	751311	Freehold	Company	Private Haul Road
19	751311	Freehold	Company	Private Haul Road
2	1296861	Freehold	Company	Private Haul Road

Mapped land uses within and surrounding the Mine Site as identified by the NSW Land Use public data mapping include the following (displayed on **Figure 4**).

- Mining activities.
- Agriculture, principally wheat cropping and sheep and cattle grazing.
- Transportation, namely Yarrandale Road.
- Crown Land and Native Title

Constellation Copper Mine: Rehabilitation Management Plan



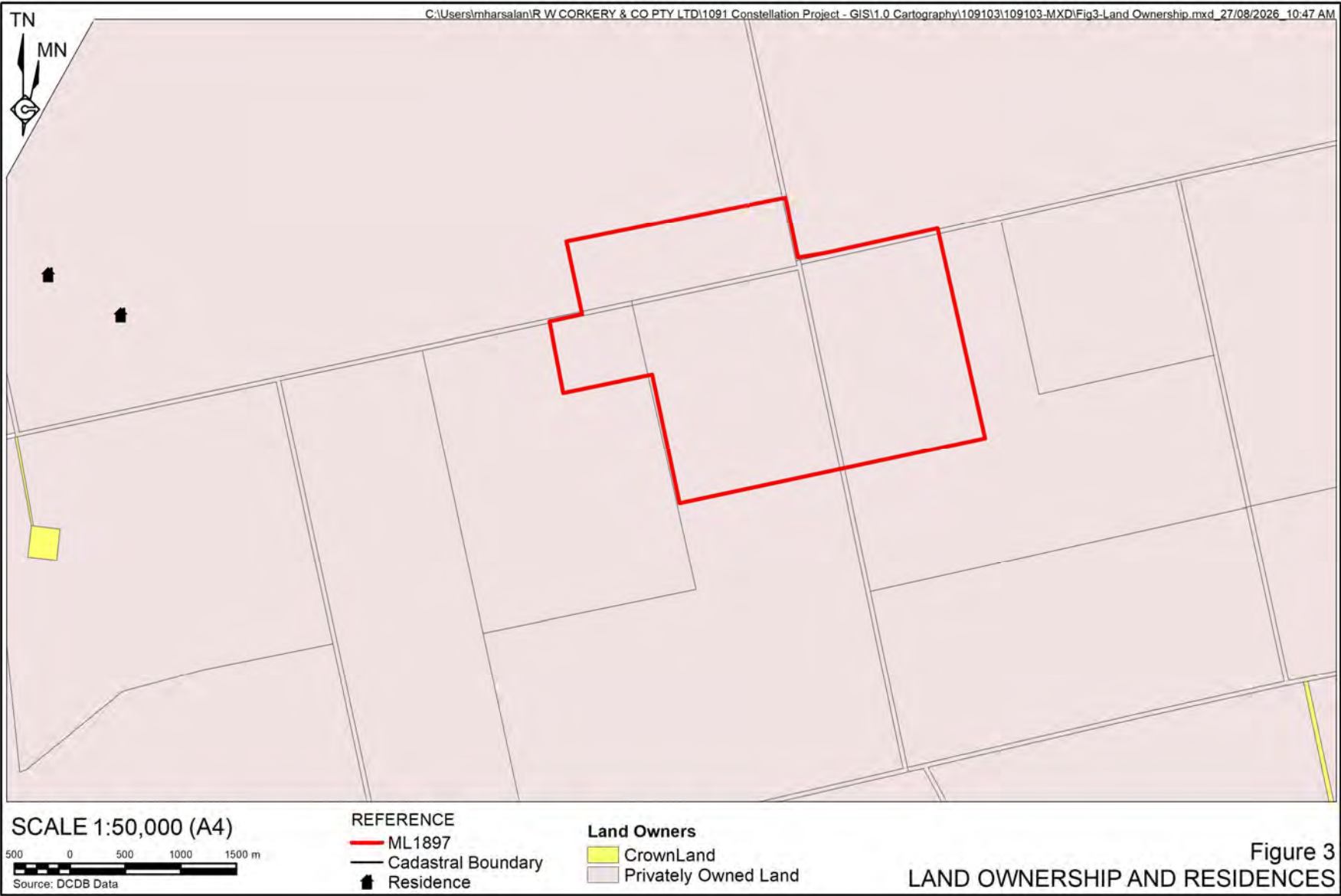
A total of 35 sensitive receptors were identified in the vicinity of the Mine Site and the haul route as part of the original assessments for the Mine. The closest sensitive receptor to the Mine Site is located approximately 4.6km to the west.

Figure 5 shows the broader environmental context for the land within and adjacent to the Mine Site. In summary, the Mine is located within the wider Macquarie Catchment. The nearest mapped waterways are several Strahler Order 1 waterways, most of which do not connect to any mapped networks. The nearest major waterway is the Strahler Order 9 Bogan River, located to the east of the Mine Site.

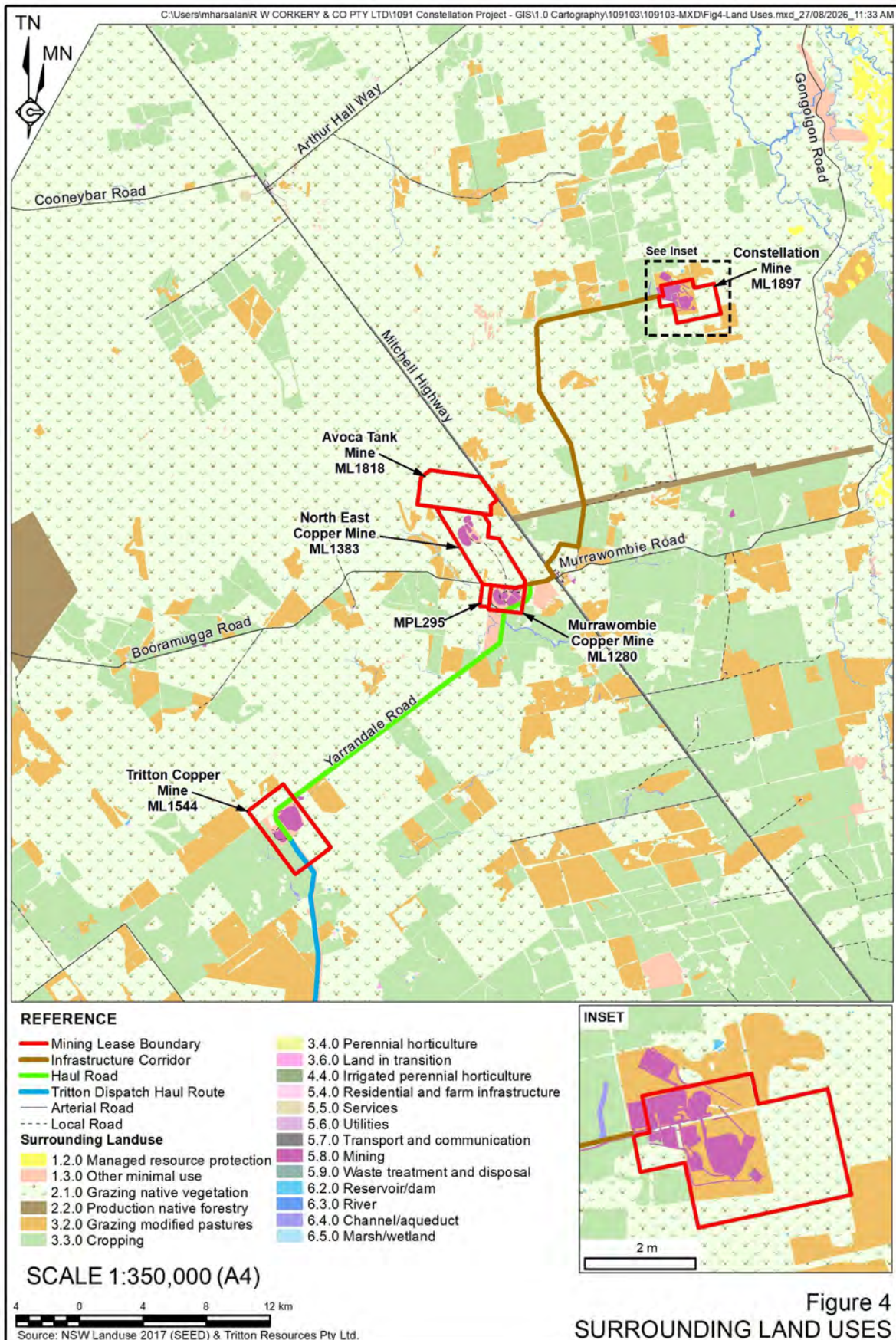
Vegetation as identified by State Vegetation Type Mapping, as well as recent biodiversity assessments, is shown on **Figure 5**. In summary, the native vegetation within the Mine Site largely consists of *PCT 103 Poplar Box - Gum Coolabah - White Cypress Pine shrubby woodland mainly in the Cobar Penneplain Bioregion*. Vegetation on the surrounding hills has been identified as *PCT 180 Grey Mallee - White Cypress Pine woodland on rocky hills of the eastern Cobar Penneplain Bioregion*. The remainder of the land within the Mine Site has largely been identified as either as cropping, or as Derived Native Grassland within grazed pastures.

Several Aboriginal Sites have been identified as occurring within the Mine Site. More information is presented in Section 6.2.1.13 and shown on **Figure 11**.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 13 of 151

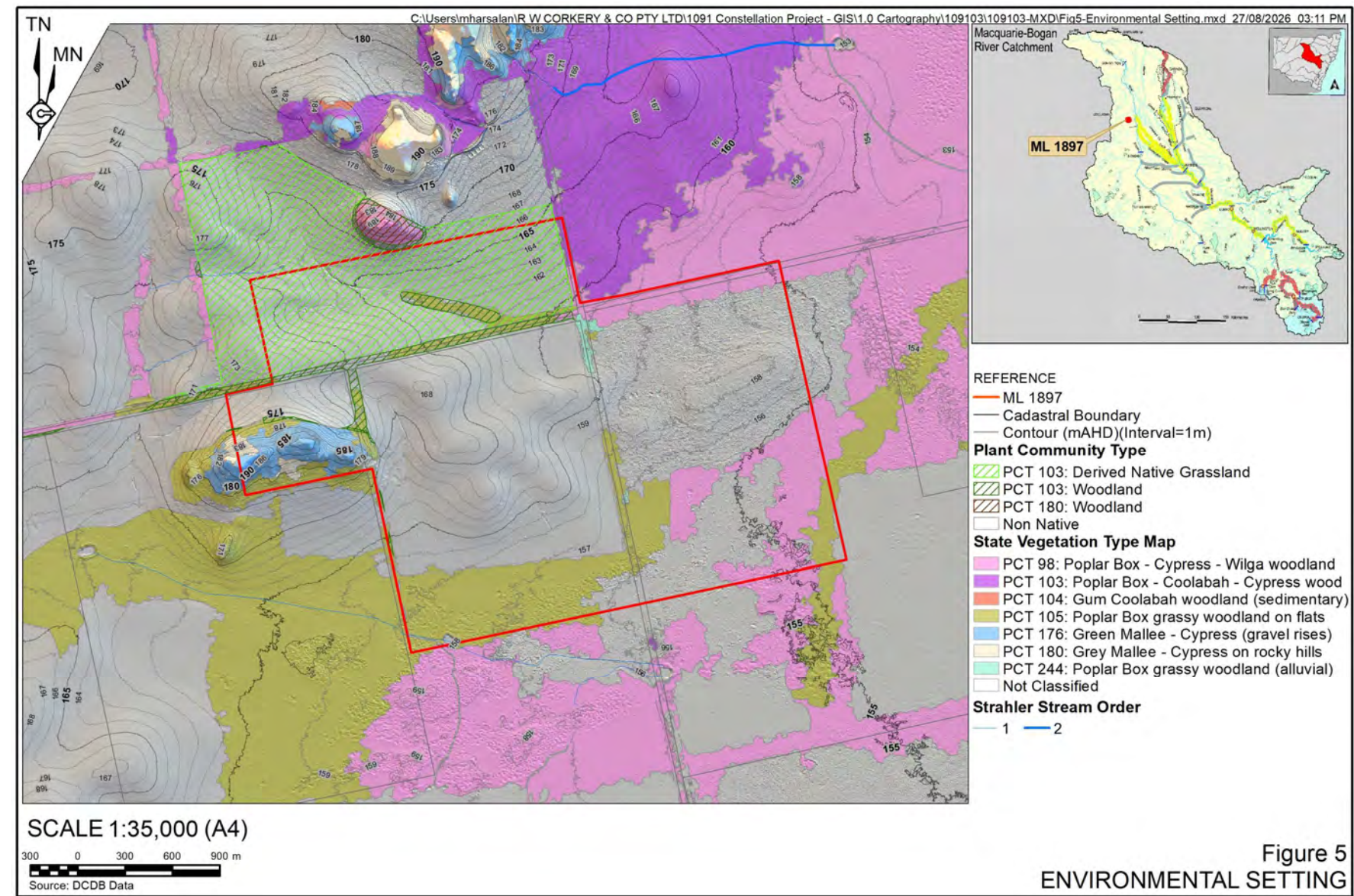


Constellation Copper Mine: Rehabilitation Management Plan



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 15 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 16 of 151

Constellation Copper Mine: Rehabilitation Management Plan



2 Final Land Use

2.1 Regulatory Requirements for Rehabilitation

The regulatory requirements for rehabilitation of the Mine Site are primarily determined by the various commitments made by the Company as part of the development application / modification application processes. In addition, rehabilitation for activities under the Mining Act 1997 are regulated by the specific conditions of ML1897, as identified under Schedule 8A of the Mining Regulation 2016. Under the Mining Act 1997, rehabilitation activities must be consistent with those approved under the Environmental Planning and Assessment Act 1979 (i.e. the development consent). The Company has prepared a Rehabilitation Strategy in accordance with Condition C48 of SSD 41579871. The Rehabilitation Strategy is submitted to and approved by DPHI. This Plan has been prepared generally in accordance with the Rehabilitation Strategy where relevant.

Table 5 lists the regulatory requirements relating to the rehabilitation of the Mine Site and post-mining land uses.

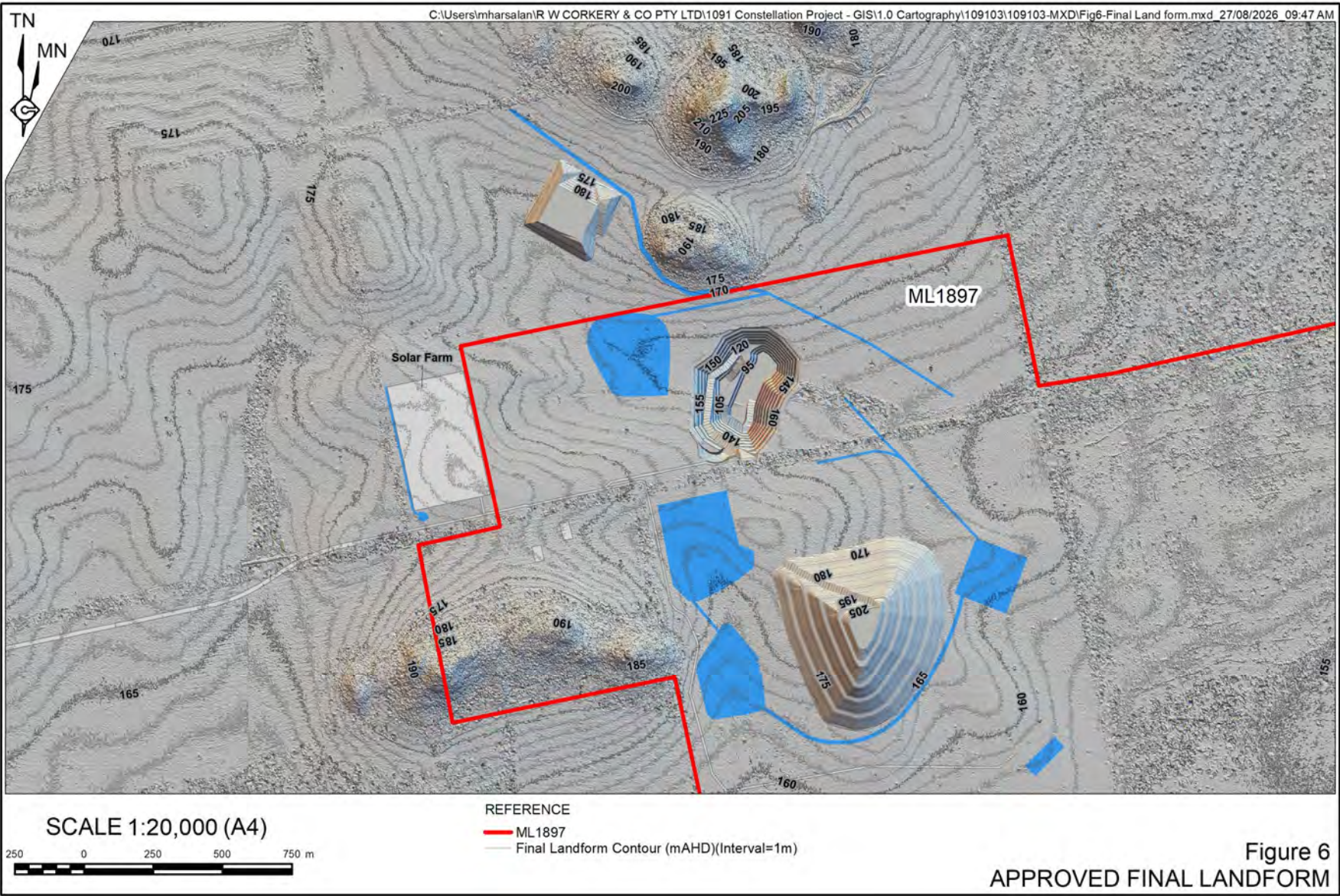
Figure 6 and **Figure 7** show the approved final landform and land use plans as per Appendix 2 of SSD 41579871.

The final land use plan includes the following land uses.

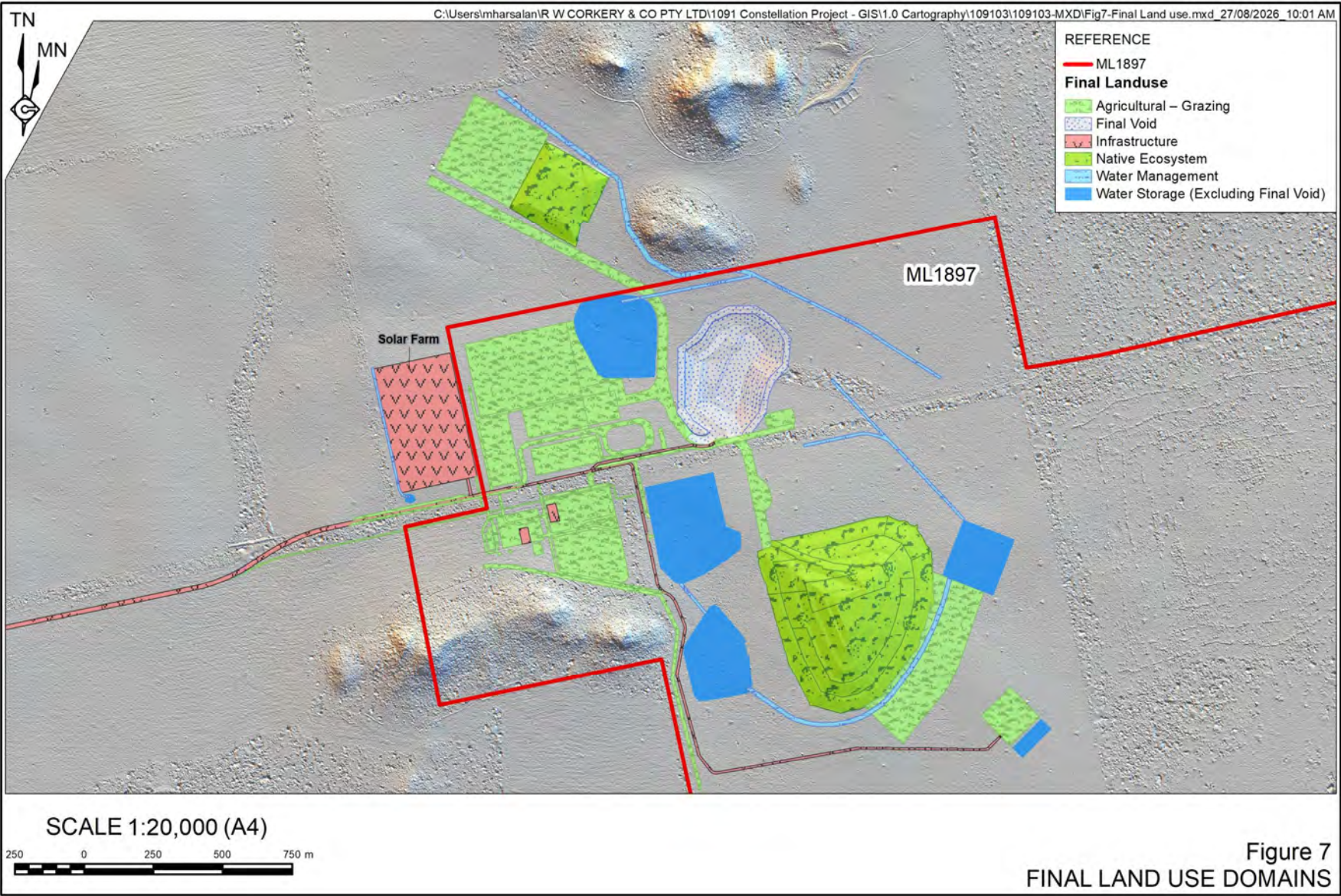
- Agricultural Grazing - associated with the majority of the ancillary infrastructure areas.
- Final Void – associated with the Open Cut.
- Infrastructure - associated with the Solar Farm and retained access roads.
- Native Ecosystem Area – Woodland – associated with the constructed landforms of the WRE and the Mineralised Waste Stockpile.
- Water Management Areas – associated with retained water management infrastructure (i.e. drains and diversions).
- Water Storage – associated with any dams to be retained to support final land use.

Underground services located within the Infrastructure Corridor are approved to be retained.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 17 of 151



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 18 of 151



Constellation Copper Mine: Rehabilitation Management Plan



Table 5 Regulatory Requirements for Rehabilitation

Consent	Cond. No. or Section	Requirement	Area	Timing	RMP Section
SSD-41579871	A1	In addition to meeting the specific performance measures and criteria established under this consent, all reasonable and feasible measures to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from preliminary works, construction, operation, or any other part of the development, including rehabilitation required under this consent.			
	A5	Mining operations may be carried out for 10 years following commencement of mining operations. Notes: - Under this consent, the applicant is required to decommission and rehabilitate the site and carry out other requirements in relation to mining operations. Consequently, this consent will continue to apply in all respects other than to permit the carrying out of mining operations until the rehabilitation of the site and other requirements have been carried out to the required standard. - Mining operations and rehabilitation are also regulated under the Mining Act 1992.		During construction, operation and rehabilitation.	This Plan
	A15	All demolition must be carried out in accordance with Australian Standard AS 2601-2001 The Demolition of Structures (Standards Australia, 2001), or its latest version.		During rehabilitation	6.2.2.2
	C44	The Applicant must consult with Registered Aboriginal Parties in relation to: - the long-term management of Aboriginal objects; - the conservation and management of Aboriginal cultural heritage, including determining the plant species of cultural value to be included in the revegetating of the mine site during the rehabilitation phase; and - the protection and removal of Aboriginal objects, including opportunities for participation; the preparation of the unexpected finds protocol required under condition C41.		During rehabilitation	6.2.1.13

Constellation Copper Mine: Rehabilitation Management Plan



Consent	Cond. No. or Section	Requirement	Area	Timing	RMP Section						
	C47	The site must be rehabilitated in accordance with the conditions imposed on the mining lease(s) associated with the development under the Mining Act 1992. Rehabilitation must be generally consistent with the proposed rehabilitation activities described the EIS and shown conceptually in Figures 8 and 9 of Appendix 2 and must comply with the objectives in Table 8 of this consent. <table><tr><td>All areas affected by the development</td><td> • Safe, stable and non-polluting • Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms to the extent practicable • Minimise long term groundwater seepage zones • Minimise visual impact of final landforms as far as is reasonable and feasible • Minimise to the greatest extent practicable: • - the size and depth of the final void • - the drainage catchment of the final void - risk of flood interaction for all flood events up to and including the probable maximum flood </td></tr><tr><td>Final void</td><td> • Slopes within the final void to achieve a factor of safety of 1.5, unless otherwise agreed by the Resources Regulator • Minimise to the greatest extent practicable any pit wall geotechnical and erosional instability risks • Minimise the potential for acid mine drainage and erosion </td></tr><tr><td>Waste rock emplacement</td><td> • Slopes on the waste rock emplacement to achieve a factor of safety of 1.5, unless otherwise agreed by the Resources Regulator • Backfilled with paste fill material </td></tr></table>	All areas affected by the development	• Safe, stable and non-polluting • Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms to the extent practicable • Minimise long term groundwater seepage zones • Minimise visual impact of final landforms as far as is reasonable and feasible • Minimise to the greatest extent practicable: • - the size and depth of the final void • - the drainage catchment of the final void - risk of flood interaction for all flood events up to and including the probable maximum flood	Final void	• Slopes within the final void to achieve a factor of safety of 1.5, unless otherwise agreed by the Resources Regulator • Minimise to the greatest extent practicable any pit wall geotechnical and erosional instability risks • Minimise the potential for acid mine drainage and erosion	Waste rock emplacement	• Slopes on the waste rock emplacement to achieve a factor of safety of 1.5, unless otherwise agreed by the Resources Regulator • Backfilled with paste fill material		During rehabilitation	This Plan
All areas affected by the development	• Safe, stable and non-polluting • Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms to the extent practicable • Minimise long term groundwater seepage zones • Minimise visual impact of final landforms as far as is reasonable and feasible • Minimise to the greatest extent practicable: • - the size and depth of the final void • - the drainage catchment of the final void - risk of flood interaction for all flood events up to and including the probable maximum flood										
Final void	• Slopes within the final void to achieve a factor of safety of 1.5, unless otherwise agreed by the Resources Regulator • Minimise to the greatest extent practicable any pit wall geotechnical and erosional instability risks • Minimise the potential for acid mine drainage and erosion										
Waste rock emplacement	• Slopes on the waste rock emplacement to achieve a factor of safety of 1.5, unless otherwise agreed by the Resources Regulator • Backfilled with paste fill material										

Constellation Copper Mine: Rehabilitation Management Plan



Consent	Cond. No. or Section	Requirement		Area	Timing	RMP Section
		Stopes	• Safe and stable • Negligible surface subsidence in the long term			
		Box cut, portals and vent shafts	• Backfilled and/or sealed			
		Surface infrastructure	• To be decommissioned and removed, unless the Resources Regulator agrees otherwise			
		Areas proposed for agriculture	• Establish/restore disturbed areas to support sustainable agriculture • Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems			
		Areas proposed for native vegetated land	• Establish self-sustaining native ecosystems characteristic of vegetation communities found in the local area			
		Community	• Ensure public safety • Minimise adverse socio-economic effects associated with mine closure			

Constellation Copper Mine: Rehabilitation Management Plan



2.2 Final Land Use Options Assessment

A detailed Final Land Use Options Assessment is presented in Section 4.2.2 of the Rehabilitation Strategy for the Mine, prepared as part of the original Development Application for the Mine.

In summary, the final land uses and landform for the Mine Site have been designed to minimise the long-term disruption to agricultural production as far as practicable. Native ecosystems will be established in areas that are less-suited for agricultural production – namely the WRE and Mineralised Waste Stockpile.

The Solar Farm will be retained if connected to the State grid, promoting diversified economic land use. Minor infrastructure that is beneficial to agricultural post-mining land uses, such as buildings, hardstand, minor roads, and water management / storage infrastructure will also be retained as per the approved final land use under SSD 41579871.

2.3 Final Land Use Statement

Final land uses within the CCM will include the following.

- Native Ecosystem Areas (woodland) – areas that will be revegetated to establish a woodland community consistent with the pre-mining landscape. Includes the WRE and Mineralised Waste Stockpile.
- Agricultural Areas (Grazing) - areas that will be rehabilitated in a manner suitable for agricultural purposes, consistent with land capability prior to mining disturbance and the surrounding topography. Includes the majority of the Mine Site.
- Water Management Areas – includes water diversion drains / bunds.
- Water Storage Areas – includes clean water dams to be retained.
- Infrastructure Areas – includes the access road, sheds, solar farm and other infrastructure.
- Final Void Area – the final void of the Open Cut and safety bund.

Final land use and rehabilitation plans for the Mine Site are presented in Section 5.

2.4 Final Land Use and Mining Domains

The Form and Way: Rehabilitation Management Plan for Large Mines (February 2024) guideline defines a domain as follows.

“An area (or areas) of the land that has been disturbed by mining and has a specific operational use (mining domain) or specific final land use (final land use domain). Land within a domain typically has similar geochemical and/or geophysical characteristics and therefore requires specific rehabilitation activities to achieve the associated final land use.”

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 23 of 151

Constellation Copper Mine: Rehabilitation Management Plan



2.4.1 Final Land Use Domains

Table 6 defines the final land use domains for the Mine and **Plan 1** displays the final land use domains for the Mine Site.

Table 6 Final Land Use Domains

Final Land Use Domain	Domain ID ¹	Domain Description
Native Ecosystem Area - Woodland	A	Includes the WRE and MWS that will be revegetated to establish a woodland community.
Agricultural Area - Grazing	B	Includes areas that will be rehabilitated to be suitable for light grazing agricultural purposes (i.e. administration buildings, ablution facilities, workshops, SX crystal plant and pad, Box Cut, Ventilation Shafts and Soil Stockpiles).
Water Management Area	F	Includes water management infrastructure to be retained post-closure. Includes water diversions and drains.
Water Storage Area	G	Includes water management infrastructure to be retained post-closure for water storage.
Infrastructure Area	I	Includes all built infrastructure to be retained or constructed for the final land use (e.g. the access road, sheds, solar farm and other infrastructures).
Final Void Area	F	Includes the final void of the Open Cut.
Note 1: See Plan 1		

2.4.2 Mining Domains

Table 7 defines the mining domains for the Mine. The layout of the Mine Site is shown on **Figure 2**.

Table 7 Mining Domains

Mining Domain	Domain ID ¹	Domain Description
Infrastructure Area	1	Includes the core infrastructure and ancillary areas of the Mine Site, including roads, as well as the Solar Farm.
Water Management Area	3	Clean / Dirty Water Includes all water management structures that capture clean water from undisturbed areas within the Mine Site or that are used as temporary storage locations for water sourced under licence from the Bogan River via the Murrawombie Mine or from an approved offtake from the Nyngan-Cobar pipeline. this includes the Solar Farm Dam and Magazine Dam.
		Contaminated Water Includes the all other water management infrastructure, including the MIA Runoff Dam and the Waste Dump Catch Dam.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 24 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Mining Domain	Domain ID ¹	Domain Description
Overburden Emplacement Area	4	Includes the WRE and Mineralised Waste Stockpile.
Active Mining Area	5	Constellation Open Cut
Other	8	Includes areas used for stockpiling of topsoil and subsoil material, and the Oxidised Ore Stockpile.
Note 1: See Figure 2		

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 25 of 151

Constellation Copper Mine: Rehabilitation Management Plan



3 Rehabilitation Risk Assessment

The Rehabilitation Risk Assessment has been prepared to consider potential rehabilitation risks associated with the CCM and has been undertaken in accordance with *Australian Standard AS/NZS ISO 31000:2009 Risk Management*.

Risks to achieving the rehabilitation objectives and rehabilitation completion criteria outlined in Section 4, as well as the final landform outlined in Section 5, were identified and assessed jointly prior to the preparation of this plan by representatives from the following.

- Triton Resources Pty Ltd
- Aeris Resources Ltd
- R. W. Corkery & Co. Pty Ltd
- JB Environmental Pty Ltd
- DnA Environmental Pty Ltd
- SGME Pty Ltd
- Atlantech Pty Ltd

Risks were assessed based on the following methodology.

- **Table 8** describes the classification of consequences based on the type of consequence identified.
- **Table 9** describes the qualitative likelihood of the unwanted event occurring over various timeframes.
- **Table 10** describes the qualitative risk rating based on the combination of consequence and likelihood.
- **Table 11** describes the classification / prioritisation of any risk controls identified.

Table 8 Constellation Consequence Table

Level				
5	4	3	2	1
Descriptor				
Insignificant	Minor	Moderate	Major	Critical
Description				
Health and Safety				
First aid treatment or injury only	Medical Treatment Injury (MTI)	Single Lost Time Injury (LTI)	Multiple Lost Time Injuries	Permanent disability > 30%

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 26 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Level				
5	4	3	2	1
Descriptor				
Insignificant	Minor	Moderate	Major	Critical
Low level soreness or small amount of pain	Restricted Work Injury (RWI)	Short term hospitalisation (< 7 days)	Extended hospital treatment (> 7 days)	One or more fatalities
	Presented to hospital (no overnight stay)	Reversible impairment to human health	Permanent disability < 30%	
			Serious long-term health issue	
Environment				
No or very low environmental impact	Low environmental Impact	Moderate environmental impact	Major environmental impact	Severe environmental impact
Impact confined to a small area	Rapid clean-up by internal staff or contractors	Clean-up by internal staff or contractors	Considerable clean-up effort required by internal staff and external contractors	Likely species destruction and long recovery period
	Impact contained to area already impacted by operations	Impact confined within lease boundary	Impact may extend across lease boundary	Extensive clean-up using external resources
Impact on a regional scale				
Community/External Relations				
Isolated complaint received	Multiple or sporadic complaints received	Repeated or serious rate of complaints	Ongoing complaints from local groups, NGO's or regulators	High level concern from community, regulators, stakeholders and /or stakeholders
No media coverage	No media coverage	Local media interest and coverage	Regional/national media interests	Adverse national or international media coverage
No damage to reputation or relationships with stakeholders	Short-term damage with relationship with one or more stakeholders but no damage to reputation	Reversible damage with stakeholders and to reputation	Protests by external stakeholders	International damage to reputation
			Local or regional damage to reputation	
Legal				
Questionable or minor non-conformance with operating condition	Non-compliance with operating conditions	Breach of local or national law with potential prosecution by regulator	Major breach of local or national law	Significant breach of national or international law with potential jail sentence

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 27 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Level				
5	4	3	2	1
Descriptor				
Insignificant	Minor	Moderate	Major	Critical
No fine or prosecution	Could attach low level administrative response from regulator	Continuing occurrence of minor breach	Prosecution or penalties by regulator likely	Operations suspended or cease (short term or long term)
Unlikely to attract regularity interest	No court appearance required		Short term treat to operations continuing	Licenses withdrawn or revoked
Easy to resolve			Civil action initiated	Class action initiated

Table 9 Qualitative Likelihood Rating

Level	Descriptor	Description in terms of full operating life of the Site	Description in terms of frequency
A	Almost Certain	Consequences expected to occur in most circumstances	Daily or continuous
B	Likely	Consequences will probably occur in most circumstances	Weekly or monthly
C	Possible	Consequences could occur at some time	Annually
D	Unlikely	Consequence will probably NOT occur in most circumstances	Within the life of the operation
E	Rare	Consequence may occur in exceptional circumstances	>100 years
Source: Tritton Resources			

Table 10 Qualitative Risk Rating

Likelihood	Consequence				
	5 Insignificant	4 Minor	3 Moderate	2 Major	1 Critical
A Almost Certain	15	10	6	3	1
B Likely	19	14	9	5	2
C Possible	22	18	13	8	4
D Unlikely	24	21	17	12	7
E Rare	25	23	20	16	11
Source: Tritton Resources					

Constellation Copper Mine: Rehabilitation Management Plan



Table 11 Residual Risk Level Action

Residual Risk Level	Priority	Actions to Minimise Risk	Actions to Maximise Opportunity
Critical	1	Detailed research and planning required; determine whether activity or task should be stopped pending further investigation.	Detailed research and planned required; high payoff potential; pursue opportunity aggressively.
High	2	Senior management attention; immediate corrective and preventative action required.	Near term opportunity with above average rate of return; pursue diligently.
Moderate	3	Conditionally acceptable risk – management responsibility assigned; corrective and preventative action plan developed.	Opportunity to realise average rate of return with certainty pursue with existing plans.
Low	4	Manage by routine procedures; accept risk.	Manage by routine procedures.

Constellation Copper Mine: Rehabilitation Management Plan



Table 12 Rehabilitation Risk Assessment Rehabilitation Risk Assessment Summary

Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
General			
Insufficient skills and experience of rehabilitation personnel.	• Site based staff (enviro team of 4) are supported by external consultants. • Procedural documents and records. • Staff training. • Central server for document control / document storage. • Assess and assign sufficient resources to manage environmental and closure risk . • Implementation of the site Rehabilitation Management Plan • Site wide approach to rehabilitation, involving all key departments and stakeholders. • Develop a Succession plan. • Embed progressive rehab within mine planning and budgets. • Develop an operational guideline rehab document (How to / procedures etc), • Develop a rehabilitation schedule / checklist to enhance team understanding of requirements and timeline, including costing and financial requirements.	17 (D3)	10, 11
Lack of clearly defined responsibilities.	• Organisation chart. • Environmental Obligations Register is maintained and kept up to date. • Incident Management and control system (INX). • Assess and assign sufficient resources to manage environmental and closure risk. • Work planner and scheduling, including regular meetings and progress updates. • Review Position descriptions for relevant staff to include rehabilitation and mine closure responsibilities. • Review the Responsibility matrix (RACI) in the review of the RMP. • Review communications between departments and relevant stakeholders relating to rehabilitation planning, scheduling and execution.	18 (C4)	10,11

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 30 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
Insufficient funding for or prioritisation of rehabilitation activities.	- Budgeting and re-forecasting (established process) - capital investment decision making includes all costs of projects including rehabilitation and mine closure aspects. - Site security deposit held by the government on behalf of the Resources Regulator, RCE reviewed on an Annual basis. - Rehab commitments acknowledged and understood at senior leadership level - independent commercial annual audit conducted. - Long-term rehab schedule to be included in Rehabilitation Management Plan. - Ensure sufficient budget capacity for rehabilitation to account for time delays, damage/delays caused by adverse weather conditions, failure of rehabilitation areas requiring reprofiling and/or reseeded, etc. Maintain a flat contingency. - Develop a rehabilitation schedule / checklist to enhance team understanding of requirements and timeline, including costing and financial requirements.	21 (D4)	10,11
Not compliant with permit/licence approvals.	- Periodic license reviews and updates. - Summary of legal requirements / commitments in RMP's. - Regular revision of risk assessment to identify and assess compliance with permit and license conditions. - TARPs (existing RMPs). - Regular collaboration with the Resources Regulator, DPHI, EPA, as well as review of Environmental Essentials, to ensure that legislative changes are identified and accounted for. Engagement and consultation with NSW approvals specialists. - Rehabilitation management plan to include a concise summary of legal and permit requirements. - Independent Environmental Audits. - Environmental Obligations Register is maintained and kept up to date. - Incident Management and control system (INX). (assigning responsibilities of obligations)	24 (D5)	10,11

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 31 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
Active Mining Phase of Rehabilitation			
Poor / inadequate / lost opportunity to salvage topsoil & other biological resources through clearing, salvage and handling practices (including timing).	- Progressive stripping and storage of topsoil. - Site seed collection guideline. - Tritton and Constellation Biodiversity and Land Management Plan pre-clearance process, including a stringent surface disturbance permit process prior to any clearing approval. - Practices minimise the re-handling of topsoil. - Habitat structures (timber / trees etc) retained for placement on rehabilitation. - Topsoil stockpiles as per the Rehabilitation management Plan are identified within a register that is regularly updated, including location, signage, surveyed volume, and soil characteristics, to ensure effective incorporation into rehabilitation works. - Waste characterisation process within the Waste Management Plan. - Material inventory tracking. - Expanded material inventory (to include NAF waste rock) and a projection of future closure and operational requirements. - Ensure geotechnical and geochemical characterisation of growth medium and capping material is continually completed (undertaken opportunistically for example as stripped / prior to application etc). - Develop and implement a progressive seed securement program - seed quantity inventory and forecast (mine closure requirements). - Review/ and revise the TRL/ Constellation BLMP to include nominal topsoil stripping depths and ensure reference in the Surface Disturbance Permit - Consider feasibility of third party storage of seed.	21 (D4)	6.2.1.1, 6.2.1.11
Limited pre-existing and stockpiled biological resources for salvage.	Implementation of a site wide Waste Management Plan (WMP), including prioritisation of the waste management principles to minimise waste generation.	23 (D4)	6.2.1.11, 10.2

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Stockpiling and preservation of topsoils, cleared vegetation, etc. to be utilised in landform coverage. - Option to utilise Aeris owned surrounding farm land for seed and biological resource salvage. - Option to use alternative / additional sources of biological material in rehabilitation (e.g. mulch). - Constellation identified to have suitable excess topsoil material, this can be redistributed to other sites where required. - Biological material salvaged where practical through the disturbance permit process. - Develop contingency plan for where material inventory projection forecasts a deficit (TARP), include this as a consideration in the RMP. - Ensure mine closure plan and final landform is planned around resource availability.		
Clearing in adverse seasonal and weather conditions when salvaging biological resources	- Not reliant on salvage of seed - seed securement with third party seed collectors. - Rehabilitation activities planned around climactic trends and weather conditions. - Erosion and Sediment Control Plan is implemented for all stages of mining. - Weather forecast TARP within environmental management plans. - Pre-clearance flora and fauna surveys conducted to determine seed collection and habitat tree reuse opportunity. - Review and map locations of rehabilitation access tracks, ensuring they are installed where required and if not, organise for installation. - Develop procedure / form and schedule for undertaking topsoil stockpile inspections and volume auditing.	21 (D4)	6.2.1.1, 6.2.1.2, 6.2.1.3
Adverse geochemical/chemical composition of materials such as overburden,	- Environmental Assessment includes Waste Characterisation and Geochemical Assessment. - Cover design model for Waste Rock emplacements and Heap Leach Pads (Murrawombie).	17 (D3)	6.2.1.4, 6.2.1.6, 6.2.1.9,

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 33 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
tailings, subsoils and topsoils etc	• Implementation of Waste Management Plan to ensure accurate classification of material type and quality. • Material sampling and characterisation program. • Implement corrective actions from rehabilitation monitoring. Incorporate findings / success into future mine closure plans. • Ensure geotechnical and geochemical characterisation of growth medium and capping material is continually completed (undertaken opportunistically for example as stripped / prior to application, etc.). • Review Waste Characterisation Grade control for Murrawombie Cutback, Constellation, Tritton - Cut off grades. Process for management. • Ensure completion of QAQC (ITPS) processes for landform construction and completion (segregation PAF/ NAF), include detail of seasonal variability and timing of hold points (clearing/ seeding). • Complete a cover design model for waste Rock emplacements and TSF (Constellation and Tritton). • Ensure ongoing rehabilitation trials continue (record in ITPS) - maintain accurate records of progress and outcomes.		6.2.1.11, 9.1.1
Handling and containment of waste materials including Tailings, waste rock, heap leach, waste / contaminated water.	• Preferential disposal of PAF at depths to conserve NAF material for use closer to the final landform. • Geochemical investigation and monitoring of the HLP throughout the closure process. • Implementation of a site wide Waste Management Plan (WMP), including prioritisation of the waste management principles to minimise waste generation. • Designated storage areas for contaminated material i.e. Waste Rock Emplacements, TSF, Head Leach Pads rehabilitated in situ. • Proactive waste classification and segregation (NAF / PAF).	17 (D3)	6.2.1.4, 6.2.1.5, 6.2.1.9

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Revise groundwater and surface water modelling of high risk areas (HLP, TSF, WRE) as you approach mine closure. - Continue implementing a program of surveying and testing of historical mining areas to identify contaminated areas / materials that need to be removed / treated prior to rehabilitation.		
Adverse surface and groundwater quality and quantity.	- Current sediment and erosion control structures / dams. - Surface and groundwater quality and level monitoring program implemented in compliance with the Water Management Plan, to identify any potential impacts to water or environmental values. - Pits / U/G workings acting as groundwater sinks. - Rehabilitation planning directs any potentially mine impacted waters to passively drain towards pits. - Revise groundwater and surface water modelling of high risk areas (HLP, TSF, WRE) as you approach mine closure. - Track / record changes from periodic review and update of the scope for surface and groundwater monitoring, to ensure effective background data is collected in developing areas, and high risk areas are monitored at sufficient frequencies to understand trends. - Develop and implement the Post Closure Water Management Plan when transitioning into mine closure. - Implement mitigation / containment controls as required following modelling and investigations.	21 (D4)	6.2.1.10
Decommissioning Phase of Rehabilitation			
Any identified hazards on items of heritage or biodiversity assets (e.g. known heritage)	- Surface disturbance permit process completed prior to the approval of any disturbance works. - Demarcation of known heritage items (fenced and labelled). - Dig permits.	21 (D4)	6.2.1.2, 6.2.1.3, 6.2.2.2, 6.2.2.3

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 35 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
items / fauna species at the operational site) e.g. migratory birds (utilising water sources), bats (utilising underground portals, etc.)	- Up to date heritage register maintained to include all known culturally significant locations identified across the operations. - Flora and fauna registers / map layers of known locations of significant flora and fauna (derived from surveys). - Implementation of the Heritage Management Plan and Biodiversity and Land Management Plan. - Arrange for artefact salvage where required. - Undertake survey (fauna) and risk assessments prior to mine closure to ensure mine closure activities do not impact on heritage or fauna within active mining areas where required. - Update disturbance permit process to better address identification and protection of heritage sites.		
Failure to disconnect services / remove infrastructure.	- Survey records. - Evidence of prior decommissioning. - Disturbance and dig permit process. - As built records of services. - Schedule decommissioning activities to commence in close association with the mine production schedule. - Prior to mine closure - undertake risk assessment on infrastructure that is proposed to be retained. RA to focus on future / long term liability for the environment, community and the beneficial use of land and water. Implement controls as identified. - Ensure all equipment and material to be retained is identified in the Rehabilitation Management Plans and incorporated into the rehabilitation planning process.	21 (D4)	6.2.2.2
Operating in proximity to infrastructure to be retained	- Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Maps of key existing infrastructure and services.	17 (D3)	6.2.2.3

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	• Demarcation of infrastructure to be retained as required. • Develop a method to ensure all retained infrastructure is identified, geolocated, and mapped. • Implement inspection schedule for retained infrastructure under the Rehabilitation Management Plan to ensure it is retained in good order, and effective controls are in place to prevent damage/contamination. • Ensure mine closure plan incorporates management of retained infrastructure.		
Use / handling of hazardous materials during rehabilitation activities	• Pollution Incident Response Management Plan implemented and tested on annual schedule (and within 1 month of a pollution incident occurring). • Incident reporting and investigation procedures. • Bunding and drainage for drill sites. • Dig permits to identify any subsurface services. • Develop an inspection / audit schedule to ensure stocked spill kits are on hand for all rehabilitation equipment and hydrocarbon / chemical storage infrastructure. • Vehicle pre-starting and adequate maintenance of all equipment. • Organise for a drainage and bunding assessment to be completed prior to rehabilitation activities commencing where required. • Organise for a chemical assessment to be completed prior to demolition where required to identify chemicals within the vicinity of rehabilitation activities and implement controls as per relevant Safety Data Sheet's and the PIRMP. • Organise for a Land Contamination and Hazard Assessment to be undertaken prior to closure and rehabilitation, including assessing the removal of hazardous substances by licensed contractor. • Develop and implement the Post Closure Water Management Plan when closure is completed.	13 (C3)	6.2.2.4, 6.2.2.6

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
Hazards associated with retained infrastructure.	- Identification of equipment and material to be retained. - Prior to mine closure - undertake risk assessment on infrastructure that is proposed to be retained. Risk assessment to focus on future / long term liability for the environment, community and the beneficial use of land and water. Implement controls as identified.	21 (D4)	6.2.2.3
Any identified hazards on items of heritage or biodiversity assets (e.g. known heritage items / fauna species at the operational site) e.g. migratory birds (utilising water sources), bats (utilising underground portals, etc)	- Surface disturbance permit process completed prior to the approval of any disturbance works. - Demarcation of known heritage items (fenced and labelled). - Dig permits. - Up to date heritage register maintained to include all known culturally significant locations identified across the operations. - Flora and fauna registers / map layers of known locations of significant flora and fauna (derived from surveys). - Implementation of the Heritage Management Plan and Biodiversity and Land Management Plan. - Arrange for artefact salvage where required. - Undertake survey (fauna) and risk assessments prior to mine closure to ensure mine closure activities do not impact on heritage or fauna within active mining areas where required. - Update disturbance permit process to better address identification and protection of heritage sites.	21 (D4)	6.2.1.2, 6.2.1.3, 6.2.1.13
Generation of material and waste products from the demolition process (including hazardous waste materials).	- Utilisation of licensed waste contractor to appropriately manage waste. - Implementation of a site wide Waste Management Plan (WMP), including prioritisation of the waste management principles to minimise waste generation. - Waste tracking is completed as part of the management/removal process. - Survey and identification of generated wastes completed prior to commencing any demolition.	21 (D4)	6.2.1.5, 6.2.2.4, 6.2.2.5

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 38 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	• Liaise with licensed waste contractor to ensure availability and capacity to remove waste prior to disturbance, to avoid the need to stockpile or keep wastes on site. • Continually review and implement the waste management hierarchy to identify opportunities for waste minimisation. • Undertake transport risk assessments undertaken for hazardous materials and demolition waste products prior to demolition. • A Land Contamination and Hazard Assessment is to be undertaken prior to closure and rehabilitation, including assessing the removal of hazardous substances by licensed contractor. • Monitor and review demolition processes to ensure work is completed according to relevant Australian Standards when planning rehabilitation activities.		
Accumulation of groundwater in underground / open pit workings - impact on beneficial use of groundwater resources.	• Current studies indicate pits and UG workings act as groundwater sinks. • Surface and groundwater quality and level monitoring program implemented in compliance with the Water Management Plan, to identify any potential impacts to water or environmental values. • Access agreements in place to monitor water level and quality on landholder properties. • Implementation of a Water Management Plan and associated Trigger Action Response Plan. • Drainage managed to avoid excess water ingress to pits. • Ensure groundwater modelling and water balance model are regularly updated and calibrated as database grows, including contaminant transport modelling. • Develop schedule for periodic update / adjustment of the mine closure plan as rehabilitation works progress. • Develop and implement the Post Closure Water Management Plan when transitioning into mine closure.	21 (D4)	6.2.6.2

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Regularly review the water monitoring schedule to ensure sufficient background level and quality monitoring database is generated. to provide comparable baseline records. - Generate timeline for pit entry plugging (underground workings).		
Failure to remove hazardous materials resulting in land / water contamination	- Incident reporting and investigation procedures, ensuring spills are reported and cleaned up. - Designated hydrocarbon and chemical storage areas, within bunded areas compliant with AS1940. - Active bioremediation facility to remediate contaminated wastes. - Contaminated site register. - Utilisation of a licensed waste contractor to appropriately manage waste. - Pollution Incident Response Management Plan implemented and tested on annual schedule (and within 1 month of a pollution incident occurring). - Organise for a Land Contamination and Hazard Assessment to be undertaken prior to closure and rehabilitation, including assessing the removal of hazardous substances by licensed contractor. - Ensure remediation of contaminated land is undertaken / completed as required. - Assessment of waste volumes and types to ensure licensed contractor has the capacity for adequate removal prior to mine closure.	24 (D5)	6.2.2.5
Unauthorised access to open pit / voids, underground workings, infrastructure areas and general mining landforms.	- Safety and security bunding established where practicable and inspected regularly during environmental inspections. - The Rehabilitation Management Plan designates that underground workings will be fitted with a concrete plug, as will the vent rises, to prevent access. - Environmental inspections for site security are completed as per the Biodiversity and Land Management Plan, reviewing for effectiveness of existing controls, and increasing inspection frequency as necessary.	16(E2)	6.2.2.1

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Develop and implement a rehabilitation schedule / timeline to ensure access control measures are completed as soon as practicable. - Review rehabilitation and exclusion signage and fencing of all mining areas where appropriate. - Organise a final landform assessment to ensure landforms are built to the approved final landform design and stable once constructed.		
Habitation of structures and/or underground working by native fauna (e.g. bats)	- The Rehabilitation Management Plan designates that underground workings will be fitted with a concrete plug, as will the vent rises, to prevent access. - Biodiversity and Land Management Plan implemented to support relocation of fauna settled in undesirable locations. - Organise for an ecological assessment to be completed prior to sealing voids. - Review all mine entries to determine if they can be rehabilitated as soon as reasonably practicable. - Review potential roosting structures such as buildings, ledges, cavities, etc. are decommissioned and removed where practicable. - Develop and implement a rehabilitation schedule / timeline to ensure access control measures are completed as soon as practicable.		6.2.2.6
Landholder access issues prevent the ability to fully decommission all mine related infrastructure.	- Land access agreements in place. Access agreements detail decommissioning conditions of any infrastructure. - Community staff employed by Aeris to maintain relationships with key external stakeholders and keep the community informed of mine developments and requirements. - Compensation provided to landowners in return for access to their land for environmental monitoring. - Monitoring locations are contained on a register and all locations are mapped out, ensuring they can all be accounted for.		6.2.2.1

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	Develop and implement a rehabilitation schedule / timeline to ensure that infrastructure can be decommissioned as soon as practicable after it is no longer required to meet environmental / legislative obligations.		
Failure of operational contractors to adequately decommission and remove their equipment from site due to dispute, financial circumstances, etc.	- Legal contracts in place with contractors, reviewed regularly. - Rehabilitation budget contains contingency for unforeseen events. - Procurement process includes vetting contractors for their operational history. - Develop and implement a rehabilitation schedule / timeline to ensure that decommissioning activities are planned for well in advance, and include contingency timeframes in the case of unforeseen events.		6.2.2.2, 6.2.2.3
Landform Establishment Phase of Rehabilitation			
Final landform does not conform to the approved final landform.	- All landforms planned and constructed as per approved project description / commitments / Approvals / permits. - Erosion and Sediment Control Plan is implemented for all stages of mining. - Mine rehabilitation planning is informed by suitably qualified geotechnical experts and assessments. - Periodic surveying of landform development and slope stability. - Prior to undertaking mine closure works, develop detailed design plans for major landforms (slope, drainage, cover materials, timing etc). Detailed designs to be undertaken >18 months prior to implementation for inclusion in budget and mining schedules. Designs will be informed by relevant geotechnical experts. - Develop and implement the Post Closure Water Management Plan when transitioning into mine closure. - Ensure post closure 'as built' survey confirms free draining landforms / built to detailed design (records kept in perpetuity).	21 (D4)	6.2.3.2, 6.2.3.3, 6.2.3.4

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	For existing rehabilitated landforms showing poor rehabilitation outcomes, develop and implement alternate design and methods to improve rehabilitation outcomes.		
Lack of suitable materials for capping / encapsulation of adverse materials.	- Waste Management Plan implemented to ensure adequate identification of material types, and preservation of NAF and topsoil. - Periodic surveying of material stockpiles and volumes. - Material balance is incorporated into the Rehabilitation Management Plan to ensure there is sufficient material to safely rehabilitate the sites. - Ensure progressive reconciling of material volumes/balance is undertaken as rehabilitation progresses. - Develop and implement a rehabilitation schedule / timeline to ensure issues with material balance are identified as early as possible so alternative options can be explored.	21 (D4)	6.2.3.2, 6.2.3.3, 6.2.3.4
Failure of borehole sealing.	- Boreholes are rehabilitated by licensed drillers following the Minimum Requirements for Water Bores in Australia standard. - Borehole register is kept to account for all monitoring bores on site, including bore designs to enable complete decommissioning. - Surface and groundwater quality and level monitoring program implemented in compliance with the Water Management Plan, to identify any potential impacts to water or environmental values. - Records are kept of exploration holes to ensure they are all accounted for upon closure. - Ensure and track progressive decommissioning of unused boreholes to distribute workload across rehabilitation works, and allow time to ensure that sealing methods are effective and durable. - Ensure post closure water management strategy is developed prior to closure and rehabilitation, and develop a schedule to track its implementation. - Develop and implement the Post Closure Water Management Plan when transitioning into mine closure	21 (D4)	6.2.2.2

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 43 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
Geotechnical instability of Final Open Pit voids	• Pits / voids are designed by suitably qualified persons to be geotechnically stable during the operational life of the pit and post closure. • Any identified unstable pit walls are addressed during operational life of mine. • Geotechnical monitoring/inspection completed by suitable qualified experts. • Erosion and Sediment Control Plan is implemented for all stages of mining. • Engage a suitably qualified geotechnical engineer to complete a factor of safety assessment to assess the long term stability / instability of pit walls and provide a range of recommendations to improve stability (as required) to meet mine closure objectives (for example cut backs, bunding, drainage correction, exclusion fencing). • Following the completion of the above report (in consultation with the NSW Resource Regulator), develop a process for recommendations (actions) to be implemented. • Investigate potential for long-term stability modelling. • Account for appropriately designed pit bunding and fencing in final design / closure planning to encourage adequate standoff distances from open pit voids.		
Generation and release of acid and metalliferous drainage.	• Geochemical assessment of wastes conducted as part of EIS / SEE / REF. • Identification and selective handling / storing of NAF / PAF Material, including prioritisation of PAF disposal at depth/underground. • Established containment to prevent release of AMD leachate - maintained throughout operational and post closure phases. • Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. • Surface and groundwater monitoring to target specific locations and analytes potentially indicative of AMD generation. • Ensure geotechnical and geochemical characterisation of growth medium and capping material is continually completed (undertaken opportunistically for example as stripped / prior to application, etc).	21 (D4)	6.2.1.8, 6.2.3.3

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 44 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Assess and develop corrective actions for existing rehabilitated waste rock emplacement landforms (Murrawombie, North East, and Constellation WRE's) to improve vegetation establishment and persistence (where required). - For any future WRE's - develop Waste Rock Emplacement cover design and model when progressing to closure. - Develop and implement the Post Closure Water Management Plan when transitioning into mine closure. - Where rehabilitation growth fails, engage a suitably qualified ecologist or revegetation expert to assess causes of failure and recommend actions to ensure that the final vegetation community corresponds as closely as possible to analogue sites.		
Waste Rock Emplacement leachate uncontained / released to environment.	- Sediment dams strategically positioned to capture potentially contaminated, mine affected runoff. - Surface and groundwater quality and level monitoring program implemented in compliance with the Water Management Plan, to identify any potential impacts to water or environmental values. - Conformance with Waste Management Plan, including minimum coverage requirements over PAF material. - Drainage networks designed to minimise water pooling and infiltration, implemented in accordance with the Erosion and Sediment Control Plan. - Develop and implement the Post Closure Water Management Plan when transitioning into mine closure. - Review the effectiveness of current methods and, if necessary, develop a new process for understanding groundwater and surface water contamination risks for WRE (for example, by undertaking reactive transport modelling, groundwater model, surface water model, etc. Implement mitigation / containment measures as required).	21 (D4)	6.2.3.3

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	Develop and implement a rehabilitation schedule / timeline to ensure that PAF or other contaminated material is sufficiently encapsulated as soon as practicable, to avoid water ingress and potentially contaminated runoff.		
Overall Waste Rock Emplacement landform design is unsuitable to sustain final land use.	- Current design maximum slope 1:3. - Stability of rehabilitated Waste Rock Emplacements monitored and assessed during operational mining phases. - Original design as proposed in SEE's and approved. - Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Assess and develop corrective actions for existing rehabilitated waste rock emplacement landforms (Murrawombie and North East WRE's) to improve vegetation establishment and persistence (where required). - Ensure any failed slopes are repaired following assessment and re-design by qualified Geotechnical engineer in consultation with restoration ecologist. - Mine closure planning - ensure conformance with final designs as informed by suitably qualified geotechnical personnel. - Ensure WRE design is updated following completion of above study / assessments and rehabilitation outcomes. - Ensure geotechnical and geochemical characterisation of growth medium and capping material is continually completed (undertaken opportunistically for example as stripped / prior to application, etc.).	21 (D4)	6.2.3.3
Soil erosion/pollution/sedimentation of waterways.	- Identified eroding areas remediated through additional earthworks, soil works, revegetation or other stabilisation works. - Cross-ripping (parallel to the contour). - Erosion inspections completed following rainfall events and periodically in line with commitments made in the Water Management Plan.	21 (D4)	6.2.3.1

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 46 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Erosion and Sediment Control Plan is implemented for all stages of mining. - Erosion control structures such as rock checks, rockfall netting, rock lining, etc. are inspected on a set schedule and repaired as required. - Surface designed to drain into designated reinforced waterways. - If current erosion and sediment controls are unsuccessful, engage a suitably qualified professional in sediment and erosion control to prepare an assessment report and recommendations. To be conducted in consultation with restoration ecologist. - Develop and implement the Post Closure Water Management Plan when transitioning into mine closure.		
Landform aspect not suitable for intended target plant species	- Final landform designed to meet the specific requirements of the target Plant Community Types (PCT). - Maximum slope design of 1:3. - Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Vegetation communities selected to fit regional climate. - Develop and implement a rehabilitation schedule / timeline to enable sufficient time for any required modifications to be made to the landform where necessary. - Ensure final landform is designed to accommodate microclimates for the PCT i.e. slope, aspect, drainage, etc.	17 (D3)	6.2.3
Growth Medium Development Phase of Rehabilitation			
Physical and structural properties of substrate.	- Materials inventory and characterisation. - Material selected for upper layers is free from large rocks and impurities. - Thorough spreading and ripping of all upper layer material.	21 (D4)	6.2.4

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Ensure geotechnical and geochemical characterisation of growth medium and capping material is continually completed (undertaken opportunistically for example as stripped / prior to application, etc.). - Investigate the addition of suitable ameliorants to address soil deficiencies i.e. improve cohesion. - Incorporate specific materials into detailed rehabilitation designs and implement as appropriate.		
Subsoil and topsoil deficit for rehabilitation activities.	- Materials inventory and characterisation. - Design of final landform takes into account the site material balance. - Topsoil stockpiling to preserve for rehabilitation. - Rehabilitation inspections as per the Rehabilitation Management Plan, including inspection of topsoil stockpiles. - Ensure geotechnical and geochemical characterisation of growth medium and capping material is continually completed (undertaken opportunistically for example as stripped / prior to application, etc.). - Incorporate specific materials into detailed rehabilitation designs and implement as appropriate. - Expanded material inventory (to include topsoil, NAF waste rock) and a projection of future closure and operational requirements. - Prioritise disposal of PAF material at depth to ensure sufficient reserves of NAF and topsoil to form upper layers.	21 (D4)	6.2.4
Topsoil not applied as per plan.	- Topsoil applied to minimum thickness of 100mm as per stipulations of the Rehabilitation Management Plan or as in cover designs. - Topsoil reserves surveyed to track volumes. - Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections.	24 (D5)	6.2.4

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 48 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Rehabilitation machinery is adequately maintained and calibrated to ensure correct thickness of material is applied. - Incorporation of topsoil balance into mine closure / rehabilitation plans (seek amendments to approvals if required). - Engage a restoration ecologist to Re-evaluate vegetation type for each domain (therefore understanding topsoil requirements). - Develop processes to ensure the current amount of topsoil is applied at the time of undertaking rehabilitation - documented in 'as built' surveys and reports. - Development and implementation of a quality assurance program. - Incorporate topsoil inspection procedure into rehabilitation management to ensure stockpiles are maintained in good order. - Develop a monitoring program/schedule to assess topsoil thickness and ensure that it is not being over or under spread prior to bulk earthworks commencing.		
Topsoil unsuitable for vegetation establishment.	- Handling of soils is minimised so they retain their structural integrity. - Topsoil stripping is completed using a bulldozer or scraper, to enable directly placing material into stockpiles. - Soil stockpiles are located adjacent to or as close as possible to disturbance areas. - Areas for stripping and stockpiling are clearly marked and delineated. - Topsoils from all areas of disturbance are stripped to a depth of approximately 20cm, and stored in stockpiles no more than 2 m high. - Weed control is included in the regular pest and disease monitoring and management of topsoil stockpiles. - Seed of a suitable non-persistent cover crop is applied on all soil stockpiles. - Topsoil stockpiles are constructed with side slopes of 1:3 (V:H) or less and inspected to ensure sufficient cover crop or material is established.	24 (D5)	6.2.4

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	• Signposting is erected on all soil stockpiles, and operation of machinery on the stockpiles is limited to minimise compaction and degradation of soil structure. • Clean water diversions/dirty water retention banks are constructed to direct overland surface water flow away from the soil stockpiles and retain sediment laden water. • Prior to application, samples from topsoil stockpiles are collected and analysed to characterise material and determine any potential impacts to vegetation (e.g. sodicity, limited microbial activity, nutrients, organic matter). • Regular testing of topsoil growth medium is undertaken as part of rehabilitation monitoring and reporting (Rehabilitation Management Plan) until quality criteria is achieved. • Where possible direct placement of stripped topsoil to rehabilitated landform (Noting that current designs do not incorporate progressive mining and rehabilitation in the same vicinities). • For sub-optimal soils, investigate stockpile / topsoil amelioration (fertility, lime gypsum, organics) to improve rehabilitation outcomes. • Incorporate topsoil inspection procedure into rehabilitation management to ensure stockpiles are maintained in good order. • many current rehab areas have adverse soil chemistry. All WREs need to be assessed as per recommendations in annual rehab monitoring reports.		
Ecosystem and Land Use Establishment Phase of Rehabilitation			
Lack of availability and quality of target seed resources, including genetic diversity.	• Seed stored in designated , structurally sound storage, where they are maintained in a cool, dry, and dark environment. • Utilisation of a licensed seed retailer to ensure genetic diversity and quality of rehab seed. • Pest control measures implemented on site including fencing, trapping, shooting, and good housekeeping. • Weed control measures undertaken across site, i.e. spraying.	18 (C4)	6.2.5

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 50 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Site biosecurity requirements - washdown and decontamination of rehabilitation equipment prior to use. - Utilisation of adequate seeding machinery. - Seeding undertaken during optimal climactic windows, ideally throughout the spring. - Purchase additional seed as required. - Include seed collection and storage in Rehabilitation Management Plan and any associated operational documents. - Develop rehabilitation Operational Guideline to control identified risks. - Development of a Seed Balance and Procurement Strategy prior to cessation of mining (by or in consultation with SQP) - including seed inventory and forecast and a seed collection and procurement strategy. Incorporate this within the Rehabilitation Management Plan. - Use seed within a certain duration after acquisition - include as part of the internal Seed Collection and Storage Protocol.		
Poor seed viability, seed dormancy	- Only the amount of seed required for the available rehab area plus additional buffer is purchased, to avoid stockpiling excess seed. - Utilisation of a licensed seed retailer to ensure genetic diversity and quality of rehab seed. - Seeding undertaken during optimal climactic windows, ideally throughout the spring. - Development of a Seed Balance and Procurement Strategy prior to cessation of mining (by or in consultation with SQP) - including seed inventory and forecast and a seed collection and procurement strategy. Incorporate this within the Rehabilitation Management Plan.	21 (D4)	6.2.5
Ant, insect, fauna predation of seed.	- Seed stored in designated , structurally sound storage, where they are maintained in a cool, dry, and dark environment. - Biosecurity requirements for rehabilitation equipment - must be sufficiently decontaminated and inspected prior to use. - Pest treatment programs implemented across site.	21 (D4)	6.2.5

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 51 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Include seed collection and storage in Rehabilitation Management Plan and any associated operational documents. - Investigate alternative seed suppliers to maintain stock as required.		
Damage to seed through revegetation process.	- Seed stored in designated , structurally sound storage, where they are maintained in a cool, dry, and dark environment. - Capacity to source additional seed as required. - Pest treatment programs implemented across site. - Development of a Seed Balance and Procurement Strategy prior to cessation of mining (by or in consultation with SQP) - including seed inventory and forecast and a seed collection and procurement strategy. Incorporate this within the Rehabilitation Management Plan.	21 (D4)	6.2.5
Poor quality tube stock.	- Capacity to source additional tube stock as required. - Soil amelioration is undertaken where required. - Seeds sourced from licensed retailer - Development of a Seed Balance and Procurement Strategy prior to cessation of mining (by or in consultation with SQP) - including seed inventory and forecast and a seed collection and procurement strategy. Incorporate this within the Rehabilitation Management Plan. - Optimal use of good quality topsoil and preferred use of seeding of native seed mixes. Infill tubestock planting as required in order to meet completion criteria targets (e.g. Tree densities and diversity), as defined by analogue sites.	18 (C4)	6.2.5
Weed infestation associated with both introduction and control	- Implementation of Trigger Action Response Plan as per the Biodiversity and Land Management Plan. - Pest treatment programs implemented across site. - Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Biosecurity requirements for rehabilitation equipment - must be sufficiently decontaminated and inspected prior to use.	18 (C4)	6.2.5

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 52 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Continually review success of control program. If weed or pest management is not successful, engage a suitably qualified ecologist to assess reasons for failure of management measures and develop a Weed and/or Pest Species Management Plan. - Review and map locations of rehabilitation access tracks, ensuring they are installed where required and if not, organise for installation. - Develop and implement a rehabilitation schedule / timeline to ensure that rehabilitation is commenced as soon as practicable, giving pests reduced time to become established on bare ground.		
Adopting inappropriate or inadequate rehabilitation techniques, including equipment fleet.	- Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Utilisation of smaller D6 dozers and lighter machinery on upper layers of rehabilitation to avoid excessive compaction. - Landform design and material selection informed by geotechnical experts. - Based off the rehabilitation schedule / timeline, develop a checklist of what equipment is required and when it is needed to conduct bulk earthworks and rehabilitation, to ensure fleet availability.	21 (D4)	6.2.5
Inappropriate revegetation species mix for targeted final land use.	- Suitable pasture species are used for rehabilitation of lands with a final land use of 'intermittent agriculture'. These are determined from monitoring of analogue sites. - Analogue sites selected to define the range of landforms and final land uses proposed. - Ongoing monitoring of revegetation success (compared to / trajectory towards analogue sites), with corrective actions assigned and applied. - Topsoil management and analysis. - Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Annual compliance monitoring.	18 (C4)	6.2.5

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	• Ensure corrective actions are applied following monitoring to correct alignment / trajectory towards mine closure criteria. • Track recommendations from soil testing and ensure that they are implemented (e.g. soil ameliorants and fertilisers applied). • Where rehabilitation growth fails, engage a suitably qualified ecologist or revegetation expert to assess causes of failure and recommend actions to ensure that the final vegetation community corresponds as closely as possible to analogue sites. • Development of a Seed Balance and Procurement Strategy prior to cessation of mining (by or in consultation with SQP) - including seed inventory and forecast and a seed collection and procurement strategy. Incorporate this within the Rehabilitation Management Plan.		
Weather and climatic influences causing poor vegetation establishment resulting in failure to meet rehabilitation objectives / mine closure criteria.	• Selection of local native species adapted to local climate based on final land use vegetation type. • Australian Standard weather stations to monitor climactic conditions and trends. • Under prevailing drought conditions, rehabilitation activities are deferred (primarily seeding). • Fire breaks and fire management capacity maintained. • Annual bushfire preparedness inspection completed prior to the start of the bushfire season. • Implementation of the Biodiversity and Land Management Plan. • Undertake selected rehabilitation trials on native species establishment and persistence. • Develop and implement a rehabilitation schedule / timeline to ensure seeding can be planned to occur during ideal climactic windows. • Arrange for re-preparation (ripping, fertility / ameliorants etc) and seeding of failed areas due to dry / drought conditions. • Ensure enclosure fencing is constructed and maintained around rehabilitation areas as per RMPs to reduce the extent of herbivory by goats (which continue to have a detrimental effect on current rehabilitation).	21 (D4)	6.2.5

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 54 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
Availability of areas for revegetation in optimal seasonal conditions.	- Progressive rehabilitation program implemented. - Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Senior leadership level understands and enforces requirements for a balance between production and rehabilitation. - Develop and implement a rehabilitation schedule / timeline to ensure areas are available for seeding during ideal conditions (Autumn - Spring). - Ensure mine closure plan accounts for timing and scheduling of rehabilitation activities.	21 (D4)	6.1, 6.2.4, 6.2.5
Habitat structures for colonisation or use.	- Biodiversity and Land Management Plan and Rehabilitation Management Plan implemented. - Vegetation (including hollowed logs) preserved where possible throughout the Disturbance Permit process for potential use in rehabilitation areas. - Stock of habitat (nesting) boxes to provide additional support to fauna establishment. - Continued stock of oversize (NAF) rock that can be used on final landform. - Ecological surveys completed throughout the rehabilitation process.	21 (D4)	6.2.1.3, 6.2.5
Ecosystem and Land Use Development Phase of Rehabilitation			
Weather and climactic influences (e.g. drought, intense rainfall events, bushfire and climate change).	- Selection of local native species adapted to local climate based on final land use vegetation type. - Australian Standard weather stations to monitor climactic conditions. - Under prevailing drought conditions, rehabilitation activities are deferred (primarily seeding). - Fire breaks and fire management capacity maintained. - Annual bushfire preparedness inspection completed prior to the start of the bushfire season. - Undertake selected rehabilitation trials on native species establishment and persistence.	21 (D4)	6.2.4, 6.2.5, 6.2.6

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 55 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Under prevailing drought conditions - defer rehabilitation activities. Ensure this is a process that is outlined in the Rehabilitation Management Plan and associated rehabilitation operational guidelines. - Arrange for re-preparation (ripping, fertility / ameliorants etc) and seeding of failed areas due to dry / drought conditions. - Develop and implement a rehabilitation schedule / timeline to ensure seeding can be planned to occur during ideal climactic windows. - Maintain site fire breaks and fire management capability.		
Long term water quality and quantity issues (e.g. AMD, high salinity)	- Compliance with Waste Management Plan - encapsulation of PAF and contaminated material - and the Rehabilitation Management Plan. - Extensive surface water and groundwater monitoring network to develop background database and identify impacts and areas of concern. - Regular review and expansion (where necessary) of the surface water and groundwater monitoring programs to continue the identification of trends and investigate areas of potential concern. - Sampling on landholder properties to understand natural water quality at surrounding agricultural properties. - Develop and implement the Post Closure Water Management Plan after completion of earthworks, including provisions for regular environmental inspections of the final landform, particularly following weather events. - Ensure groundwater modelling and water balance model are regularly updated and calibrated as database grows, including contaminant transport modelling.	17 (D3)	6.2.1.6, 6.2.1.8, 6.2.1.10, 6.2.2.4, 6.2.2.5,
Damage to rehabilitation (e.g. fauna, domestic stock, vandalism, vehicular)	- Pest control measures implemented on site including fencing, trapping, shooting, and good housekeeping. - Exclusion fencing installed. - Where pests are identified, control and / or dispersion methods are implemented.	18 (C4)	6.2.5, 6.2.6

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 56 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
interaction, bushfire, insects, and plant disease).	• Staff training and inductions focus on rehabilitation. • Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. • Review and, if necessary, refine TARPs for identifying and implementing pest species management programs.		
Re-disturbance of established rehabilitation areas	• Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. • Surface Disturbance permit process. • Annual bushfire preparedness inspection completed prior to the start of the bushfire season (Fire break inspection). • Fire breaks and fire management capacity maintained. • Delineation of rehabilitation areas and installation of fencing and security bunds where required. • Implement a schedule for pre-rehab inspections to identify remaining infrastructure which could become trapped by progressing rehabilitation. • Review and map locations of rehabilitation access tracks, ensuring they are installed where required and if not, organise for installation. • Develop and implement a rehabilitation schedule / timeline to understand and plan for when particular services have to be decommissioned to reduce the likelihood of having to re-enter completed rehab.	21 (D4)	6.2.6
Insufficient establishment of target species and limited species diversity.	• Selection of local native species adapted to local climate based on final land use vegetation type. • Rehabilitation trials undertaken on native species establishment and persistence. • Annual rehabilitation monitoring and rehabilitation forward program. • Implementation of a revegetation plan to guide revegetation works and improve the likelihood of success.	23 (E4)	6.2.5

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 57 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
Limited vegetation structural development and habitat for targeted fauna species.	- Suitably qualified ecologists are engaged to assess reasons for failure where required. - Utilisation of suitable pasture species. - Provision of shelter structures such as logs with hollows, rocks, etc, where required.	23 (E4)	6.2.6
Erosion and failure of landform, drainage and water management storage structures	- Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Erosion and Sediment Control Plan is implemented for all stages of mining. - Rehabilitation and landform designs informed by suitably qualified experts. - Audit all containment structures to verify whether they include safe overflow facilities. Incorporate these into environmental inspection checklists. - When developing the mine closure plan, ensure post closure drainage and containment structures are designed to withstand climate change scenarios. This should also be incorporated into the Post Closure Water Management Plan. - Develop and implement the Post Closure Water Management Plan when transitioning into mine closure.	13 (C3)	6.2.6
Lack of infrastructure to support intended final land use (e.g. dams, fences, watering facility)	- Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Rehabilitation program budgeted and well resourced. - Approval (change of management) process for infrastructure decommissioning. - Rehabilitation planning process incorporates various subject matter experts (SME's). - Generate a rehabilitation checklist, identifying key infrastructure required to support the landform, and track it's development / condition.	21 (D4)	6.2.6
Mine Subsidence Affected Areas			
Extended water ponding	Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections.	21 (D4)	6.2.3.2

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	- Final landforms designed with consistent slopes for drainage. - Excessive compaction avoided to create a semi-permeable surface. - Vegetated substrate to assist with water uptake.		
Redirection of existing flow paths (>3 order streams)	- Erosion and Sediment Control Plan is implemented for all stages of mining. - Final landform designed to supply water to catchments in a manner similar to the undisturbed landform. - Drainage and slope angle designed to promote steady runoff and avoid water ponding on final landform.	21 (D4)	6.2.3.1, 6.2.3.2
Subsidence cracking	- Final landform design planned to ensure adequate material utilised in the construction phase. - Material characterisation is progressively undertaken to ensure competent material utilised to achieve final landform. - Appropriate drainage channels and controls to prevent water ponding. - Active underground mine designed to not cause surface subsidence, with progressive backfilling / paste filling undertaken. - Final landform designed to specific height and slope angles to promote runoff and stability.	21 (D4)	6.2.3.4
Interconnective cracking with underground workings	- Active underground mine designed to not cause surface subsidence, with progressive backfilling / paste filling undertaken. - The Rehabilitation Management Plan designates that underground workings will be fitted with a concrete plug, as will the vent rises, to prevent water ingress and promote stability. - Mine design incorporates expert geotechnical guidance.	12 (D2)	6.2.3.2
Interference with tree roots	- Conformance with Waste Management Plan, including minimum coverage requirements over PAF material. - Preferential selection of shallow rooting species for the Heap Leach and Tailings facilities.	21 (D4)	6.2.3.2

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	Vegetation coverage to utilise water within the topsoil profile and minimise the amount moving through mine waste beneath the surface.		
Sink holes	- Material characterisation to ensure competent material utilised to achieve final landform. - QAQC of adequate compaction and profiling throughout the land forming stages. - Drains designed to promote effective drainage and runoff. - Implementation of the Rehabilitation Management Plan, including inspections to identify any potential areas of geotechnical concern.	17 (D3)	6.2.3.2
Impacts to aquifers and groundwater loss of water to water users including the environment	- Conformance with Waste Management Plan, including minimum coverage requirements over PAF material. - Regular review of the water monitoring schedule to ensure sufficient background level and quality monitoring database is generated to provide comparable baseline records. - Ensure adequate vegetation coverage to minimise the amount of water moving below the topsoil profile. - Direct surface runoff to drain towards surface drainage lines where recharge to groundwater is generally more effective.	17 (D3)	6.2.3.4
Land relinquishment			
Failure to meet mine closure criteria	- Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections. - Environmental Obligations Register is maintained and kept up to date. - A program of progressive rehabilitation is implemented. - Rehabilitation Forward Program as per Mining Lease conditions. - Annual reporting on rehabilitation outcomes.	21 (D4)	10
Change of legislation	- Environmental Obligations Register is maintained and kept up to date. - Implementation of the Rehabilitation Management Plan, including rehabilitation monitoring and inspections.	21 (D4)	11

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 60 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Risk	Risk Control	Risk Rating*	Where Addressed in this RMP
	Frequent consultation with the Resources Regulator and Planning Department, as well as Environment Essentials for legislative updates.		
* Risk rating assumes successful implementation of risk controls.			

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 61 of 151

4 Rehabilitation Objectives and Rehabilitation Completion Criteria

4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Table 13 presents the rehabilitation objectives and rehabilitation completion criteria for individual final land use domains at the Mine Site. Final land use domains are shown on **Plan 1**.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 62 of 151



Table 13 Proposed Rehabilitation Objectives and Proposed Rehabilitation Completion Criteria

Rehabilitation Objective Category	Spatial Reference	Rehabilitation Objectives (describe the desired features and/or characteristics of the final land use domain)	Indicator (specific attribute associated with the objective)	Rehabilitation Completion Criteria (benchmark for the indicator, based on analogue data where appropriate)	Example Justification/Validation Methods* (evidence that the benchmark has been achieved)
Removal of Infrastructure	A4, B1, B3, B8, F3, G3, I1, J5	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.	Removal of all services (power, water, communications) that have been connected on the site as part of the operation.	All utility infrastructure removed.	Statement provided, utility service disconnection record / notification.
			Heritage obligations (e.g. development consent under the <i>Environmental Planning and Assessment Act 1979</i> , approvals under the <i>Heritage Act 1977</i> , etc.) have been met (e.g. archival recording, building retention or building demolition with footings preserved).	Permits and approval documents issued. All archival reports required are complete and submitted.	Copy of any relevant approval documentation and archival reports/records.
			Removal of all plant, equipment and associated infrastructure including processing facilities, stockpile areas, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples storage racks, samples.	Infrastructure removed.	As-constructed final landform plan, photos, decommissioning reports etc.
			All footings removed to a depth as far as reasonably practicable to avoid exposure pathways to subsequent final land use	Footings removed and or removed to specified depths to avoid exposure pathways to subsequent final land use.	Surveyed and marked on the as-constructed final landform plan. Copy of notification to local Council and Dial Before You Dig.
			Removal of all water management infrastructure (including pumps, pipes and power)	Infrastructure removed.	Statement provided and before/after photos.
			All drill cores have been removed and taken either to an authorised storage or a disposal location.	Cores removed and relocated.	Statement provided, receipt records from storage or disposal location.
			Surveying and sealing of all drill holes and boreholes in accordance with departmental guidelines and relevant standards. (e.g. MDG6001 Permanent filling and capping of surface entries) and relevant standards	Sealing completed and verified.	Engineering report/statement, plug and abandonment log, photos, as-constructed drawings, records of fill materials and concrete plugs, filling methods etc.
			Surveying of all seals of underground mine entries Engineering design of mine seals in accordance with relevant departmental guidelines (e.g. MDG6001 Permanent filling and capping of surface entries) and relevant standards Suitable engineering properties of construction materials Construction technique (e.g. anchoring seals into strata). Construction technique (e.g. anchoring seals into strata)	Sealing completed and verified in accordance with relevant departmental guidelines (or equivalent) and or sealing constructed to a rating to contain "X"m head of water and verified by suitably qualified engineer.	Engineering report/statement, plug and abandonment log, photos, as-constructed drawings, records of fill materials and concrete plugs, filling methods, etc.



Rehabilitation Objective Category	Spatial Reference	Rehabilitation Objectives (describe the desired features and/or characteristics of the final land use domain)	Indicator (specific attribute associated with the objective)	Rehabilitation Completion Criteria (benchmark for the indicator, based on analogue data where appropriate)	Example Justification/Validation Methods* (evidence that the benchmark has been achieved)
Retention of Infrastructure	A4, B1, B3, B8, F3, G3, I1, J5	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.	Hazards isolated and secured.	Statement provided by suitably qualified engineer.
			Damage to access tracks has been repaired and stabilised.	Repairs complete.	As-constructed final landform plan, photos etc.
	A4, B1, B3, B8, F3, G3, I1, J5	All infrastructure that is to remain as part of the final land use benefits from the relevant approvals (e.g. development consent and/or licence/lease/binding agreement, etc.)	Where applicable, necessary approvals are in place (e.g. development consent under the <i>Environmental Planning and Assessment Act 1979</i>) where buildings and infrastructure are to be retained as part of final land use.	Permits and approval documents issued.	Copy of any relevant approvals.
			Heritage obligations as required under the <i>Environmental Planning and Assessment Act 1979</i> , <i>Heritage Act 1977</i> , etc. have been met (e.g. archival recording, building retention and restoration).	Permits and approval documents issued; archival reports (where required) complete and submitted.	Copy of any relevant approvals.
			The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be suitable and safe as part of the intended final land use.	Engineering report/statement, photos, risk assessment verifying modes of failure are adequately addressed to minimise risks to public safety or the environment.
			Infrastructure is in a condition (e.g. structural, electrical, other hazards) that is suitable for the intended final land use.	Formal acceptance from the subsequent landowner that infrastructure is in a condition that is suitable for the intended final land use in accordance with formal agreement.	Formal acceptance from landowner.
			If any underground pipelines or other infrastructure are to remain in situ, they do not pose a hazard for the intended final land use.	Remnant in-situ pipelines are below X depth as determined to be suitable for intended final land use.	Surveyed and marked on the as-constructed final landform plan.
				The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig.	Copy of notification to local Council and Dial Before You Dig.
				Formal acceptance from the subsequent landowner that underground infrastructure has been left in a condition that is suitable for the intended final land use in accordance with formal agreement.	Formal acceptance from landowner.
				All potential hazards associated with the retention pipelines (i.e. residual gas) have been removed.	Identified on an appropriate legal instrument associated with the land title.
					Hazards associated with in-situ pipelines have been validated by a suitably qualified persons as being effectively removed.

Constellation Copper Mine: Rehabilitation Management Plan



Rehabilitation Objective Category	Spatial Reference	Rehabilitation Objectives (describe the desired features and/or characteristics of the final land use domain)	Indicator (specific attribute associated with the objective)	Rehabilitation Completion Criteria (benchmark for the indicator, based on analogue data where appropriate)	Example Justification/Validation Methods* (evidence that the benchmark has been achieved)
Land Contamination	A4, B1, B3, B8, F3, G3, I1, J5	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.	Heritage obligations as required under the <i>Environmental Planning and Assessment Act 1979</i> , <i>Heritage Act 1977</i> , etc. have been met (e.g. archival recording, building retention and restoration).	Permits and approval documents issued; archival reports (where required) complete and submitted.	Copy of any relevant approvals and associated reports.
			The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be suitable and safe as part of the intended final land use.	Engineering report/statement, photos, risk assessment report validating modes of failure have been addressed to minimise risks to public safety and the environment etc.
			Waste material and/or visible contamination areas on site surface.	There are no visible signs of contamination following the removal of plant, equipment and materials. All rubbish/ waste materials removed from site.	Statement provided and before/after photos.
			Soil testing for contaminants of concern as listed by Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999) applicable to land use type.	Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999). Excess sludge/material has been removed from surface water dams.	Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required).
Management of waste and process materials	A4, B1, B3, B8, I1	Residual waste materials stored on site (e.g. tailings, PAF and other wastes) will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.	Visual – capping material placement, type across emplacement	Visual – verification that capping, type and placement consistent with design	Photos, rehabilitation monitoring reports, as- constructed surveys, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.
			Visual – indication of capping performance on final landform – vegetation health	Visual – no signs of compromised capping performance indicated by vegetation health – such as tree death (deeper root systems)	
			Visual – emplacement seepage and other indicators of groundwater issues – wet spots, etc.	Visual – no areas of unexpected seepage	
			Measured - survey of emplacement capping to verify construction and to monitor settlement.	Survey verifies that capping placement consistent with design and settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.	Photos, rehabilitation monitoring reports, as- constructed surveys, quality assurance records for construction, erosion surveys, independent geotechnical reports (where required), groundwater/surface water monitoring reports.



Rehabilitation Objective Category	Spatial Reference	Rehabilitation Objectives (describe the desired features and/or characteristics of the final land use domain)	Indicator (specific attribute associated with the objective)	Rehabilitation Completion Criteria (benchmark for the indicator, based on analogue data where appropriate)	Example Justification/Validation Methods* (evidence that the benchmark has been achieved)
			Quality assurance records for the construction of the emplacement material including (where relevant) capping material, liner system, seepage control, etc.	Quality assurance records verify capping constructed and in accordance with design specifications relevant to site risks and target final land use. For example: • Capping depth – X metres • Capping material type • Capillary breaks • Seepage control. • Long term integrity of cap to encapsulate adverse materials, including control of tree root penetration. • Long term monitoring and maintenance	The structural integrity of the infrastructure and capping has been inspected by a suitably qualified engineer and determined to be suitable and safe as part of the intended final land use and water material adequately contained.
			Measured- surface and groundwater levels to verify water balance modelling and capping function	Groundwater and surface monitoring verify capping function e.g. 'store and release' and design performance permeability/seepage.	
			Measured – contamination levels in surface and groundwater surrounding emplacement for contaminants of concern associated with waste material emplaced.	Groundwater and surface water monitoring verify adequate containment of waste materials and seepage/leachate is not contributing to land/groundwater contamination.	
Landform Stability	A4, B1, B3, B8, F3, G3, I1, J5	The final landform is stable for the long-term and does not present a risk of environmental harm downstream / downslope of the site or a safety risk to the public/stock/native fauna.	Visual - indicators of erosion and land instability.	Visual - minimal erosion that would not require moderate to significant ongoing management and maintenance works.	Before and after photos, rehabilitation monitoring reports, as- constructed surveys, erosion surveys, independent geotechnical reports (where required) and or erosion modelling reports (where required) that indicate long-term stability of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).
			Visual - indicators that surface water management structure are functioning as designed.	Visual – no signs of land instability such as mass movement.	
		Landform that is commensurate with surrounding natural landform and where appropriate, incorporates geomorphic design principles.	Measured – erosion rates from field trials and or surveys on both target analogue sites (representative of final land use) and rehabilitated profiles (tonnes / ha).	Visual - no areas of active gully erosion.	An engineering assessment undertaken by a suitably qualified person concludes that significant surface water management structures (e.g. spillways, drop structures,



Rehabilitation Objective Category	Spatial Reference	Rehabilitation Objectives (describe the desired features and/or characteristics of the final land use domain)	Indicator (specific attribute associated with the objective)	Rehabilitation Completion Criteria (benchmark for the indicator, based on analogue data where appropriate)	Example Justification/Validation Methods* (evidence that the benchmark has been achieved)
			Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan.	Visual - no evidence of tunnel erosion.	major drains and creek diversions) have been constructed in accordance with hydrological design.
			Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion. (may include movement measurements through radar, prisms, tell-tales, lidar imagery, etc. monitoring)	Visual – no evidence of active scour likely to compromise surface water management structure.	
			Modelled – long term erosional stability modelling undertaken as required (e.g. Landform Evolution Modelling) to verify the long-term stability of rehabilitated landform.	Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.	
			Modelled – long term geotechnical stability modelling undertaken as required (e.g. stability analysis) to verify the long-term stability of rehabilitated landform.	Survey verifies that settlement and/or material loss is within predicted limits and will not compromise final landform drainage via differential settlement.	
				Erosion rate monitoring verifies that erosion levels are within the range of target analogue sites representative of final land use (e.g. 5 to 20 tonnes / hectare / year).	
				Significant surface water management structures (e.g. spillways, drop structures, major drains and creek diversions) have been constructed in accordance with hydrological design.	
				Landforms have been constructed in accordance with geotechnical design and have been assessed by suitably qualified expert as stable based on visual and measured indicators of instability.	An engineering assessment undertaken by a suitably qualified person concludes that high risk landforms (such as steep slopes, high walls) have been constructed in accordance with geotechnical design.
				Based on level of uncertainty and consequences of instability, achieving a suitable stability criteria expressed as FoS. An increased FoS for landforms within proximity of critical infrastructure or in areas with higher environmental sensitivities may be required.	
Bushfire	A4, B1, B3, B8, F3, G3, I1, J5	The risk of bushfire and impacts to the community, environment and infrastructure	Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service such as the location	Bushfire controls implemented.	Statement provided and before/after photos.



Rehabilitation Objective Category	Spatial Reference	Rehabilitation Objectives (describe the desired features and/or characteristics of the final land use domain)	Indicator (specific attribute associated with the objective)	Rehabilitation Completion Criteria (benchmark for the indicator, based on analogue data where appropriate)	Example Justification/Validation Methods* (evidence that the benchmark has been achieved)
		has been addressed as part of rehabilitation.	and design of retained bushfire trails as depicted in the Final Landform and Rehabilitation Plan.		
Surface Water	A4, B1, B3, B8, F3, G3, I1, J5	Runoff water quality from mine site meets the requirements of the relevant development consent(s) / Environment Protection Licence and does not present a risk of environmental harm.	Water quality parameters selected from Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 and or Environment Protection Licence (further guidance available on NSW Environment Protection Authority website).	Water quality discharged from rehabilitated mining operation meet specifications in Environment Protection Licence and/or ANZ Guidelines 2018 for specific environment.	Water quality monitoring reports.
		Or (where there are limited or no requirements in a development consent)			Environment Protection Licence relinquished by Environment Protection Authority.
		Runoff water quality from mine site is similar to, or better than the pre-disturbance runoff water quality.			Independent hydrological assessment report. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years).
Water Approvals	F3, G3, J5	Structures that take or divert water such as final voids, dams, levees etc. are appropriately licensed (e.g. under the Water Management Act 2000) and where required ensure sufficient licence shares are held in the water source(s) to account for water take.	Final landform considers advice from relevant Government Agency whether sufficient licence shares are available in the water source to account for water stored in voids and dams in the proposed final landform.	Water approvals / licences are granted by relevant NSW Government Agency.	Confirmation from relevant Government Agency that relevant water approvals / licences are able to be granted.
Groundwater	A4, B1, B3, B8, F3, G3, I1, J5	Groundwater quality meets the requirements of the relevant development consent(s) / Environment protection Licence and does not present a risk of environmental harm.	Water quality parameters as derived from Australian and New Zealand, Guidelines for Fresh & Marine Water Quality (ANZ Guidelines 2018) and or Environment Protection Licence (further guidance available on the NSW Environment Protection Authority website).	Water quality discharged from rehabilitated mining operation meet specifications in Environment Protection Licence and or ANZ Guidelines 2018 guidelines for specific environment. Post-mining groundwater management and treatment system implemented and operating in accordance with design specifications	Independent hydrological assessment report. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years).
			Groundwater levels, groundwater flow.	Measured and or modelled groundwater level and or flow is consistent with development consent or within an acceptable level of change from a defined reference condition.	Water quality monitoring reports. Environment Protection Licence relinquished by Environment Protection Authority. Independent hydrological assessment/modelling report. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years).



Rehabilitation Objective Category	Spatial Reference	Rehabilitation Objectives (describe the desired features and/or characteristics of the final land use domain)	Indicator (specific attribute associated with the objective)	Rehabilitation Completion Criteria (benchmark for the indicator, based on analogue data where appropriate)	Example Justification/Validation Methods* (evidence that the benchmark has been achieved)
Ecological rehabilitation	A4	The vegetation composition includes native species commensurate with one or more of the surrounding PCT types (PCT180 and PCT176) and that are deemed suitable to establish over the Waste Rock Emplacement / Mineralised Waste Stockpile without impacting on the integrity of the cover / cap.	Native plant species recorded from 0.04 hectare fixed monitoring plots are characteristic of the target vegetation community (e.g. target community type)	Using the PCT Assignment Tool16 (or an analogous method agreed by the consent authority in consultation with DCCEEW CPHR17), the distance to centroid value(s) when comparing the ecological rehabilitation site and target PCT is within the specified threshold range set by the development consent as described in the online PCT assignment tool (and supporting technical report and guidance) A minimum number of species recorded is within the 10th and 90th percentile of reference site values of the target vegetation community	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that validate rehabilitation completion criteria have been met. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years).
Ecological rehabilitation	A4	The vegetation structure of the final landform is commensurate with one or more of the surrounding PCT types (PCT180 and PCT176).	Cover and abundance of plant growth forms recorded from 0.04 hectare fixed monitoring plots are characteristic of the target vegetation community (e.g. target community type), or an ongoing trend toward becoming characteristic is evident from the monitoring data	Foliage cover of species allocated to the 3 dominant growth form groups for the target PCT as determined by the PCT benchmarks for cover (see Bionet Vegetation Classification or BAM Calculator) is within the 10th-90th percentile variation range of the specified reference sites/data; and For wooded target PCT(s) only: Stem abundance and diameter at breast height for trees in size classes	
Ecological rehabilitation	A4	Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.	Indicators of nutrient cycling are suitable for sustaining the target vegetation community (e.g. PCT(s))	Litter cover is within 10th-90th percentile variation range of reference sites/data	Rehabilitation monitoring reports, independent soil reports (where required) that demonstrate long-term function of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years).
			Evidence of plant regeneration from 0.04 hectare fixed monitoring plots or a walk over of the ecological rehabilitation area	Second generation individuals of trees are within the 10th-90th percentile variation range of reference sites/data and Number of native plant species flowering / fruiting	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that validate rehabilitation completion criteria have been met. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years).



Rehabilitation Objective Category	Spatial Reference	Rehabilitation Objectives (describe the desired features and/or characteristics of the final land use domain)	Indicator (specific attribute associated with the objective)	Rehabilitation Completion Criteria (benchmark for the indicator, based on analogue data where appropriate)	Example Justification/Validation Methods* (evidence that the benchmark has been achieved)
			Cover of exotic species within 0.04 hectare fixed monitoring plots is low	Foliage cover of 'high threat exotic' (HTE) weeds (as defined by BAM Calculator) is within 10th-90th percentile variation range of reference sites/data or at a level that does not cause significant risk to rehabilitation.	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required). Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years)
			Soil health is suitable to sustain the target vegetation community(s) (e.g. PCT)	Total organic carbon is within 10th 90th percentile variation range of reference sites/data; and Total microbial biomass is within 10th-90th percentile variation range of reference sites/data The ratio of fungus to bacteria (fungal:bacterial) biomass is within 10th-90th percentile variation range of reference sites/data	Rehabilitation monitoring reports, independent soil reports (where required) that demonstrate long-term function of rehabilitated landform. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years)
			Coarse woody debris	Suitable levels of coarse woody debris have been installed to meet habitat requirements.	Before and after photos, rehabilitation monitoring reports, independent ecological reports (where required) that validate rehabilitation completion criteria have been met.
			Threats to rehabilitation	Vertebrate pest species – presence and damage is recorded at a level that does not cause significant risk to rehabilitation. Domesticated stock - presence and damage is recorded at a level that does not cause significant risk to rehabilitation.	Rehabilitation monitoring reports
			Specific habitat structures	Specific habitat structures as required by the development consent, have been installed and are structural sound / stable	Statement provided by suitably qualified ecologist
Agricultural Revegetation	B1, B3, B8	Land use capability is capable of supporting the target agricultural land use.	Office of Environment & Heritage (2012), The land and soil capability assessment scheme – Second approximation – A general rural land evaluation system for New South Wales.	Land and Soil Capability classification or Agricultural Land Classification criteria met.	Rehabilitation monitoring reports, independent soil reports, environmental monitoring records, independent agronomist reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years).



Rehabilitation Objective Category	Spatial Reference	Rehabilitation Objectives (describe the desired features and/or characteristics of the final land use domain)	Indicator (specific attribute associated with the objective)	Rehabilitation Completion Criteria (benchmark for the indicator, based on analogue data where appropriate)	Example Justification/Validation Methods* (evidence that the benchmark has been achieved)
		Revegetation is sustainable for the long-term and only requires maintenance that is consistent with the intended final land use.	Pasture type, palatability and productiveness	Percentage of pasture species that are perennial, palatable and productive comparative to surrounding agricultural areas.	Rehabilitation monitoring reports, independent soil reports, environmental monitoring records, independent agronomist reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15+ years).
		Revegetation is sustainable for the long-term and only requires maintenance that is consistent with the intended final land use.	Ground cover (vegetation, leaf litter, mulch)	Percentage of ground cover (vegetation, leaf litter, mulch) is comparable to surrounding agricultural areas.	
		Revegetation is sustainable for the long-term and only requires maintenance that is consistent with the intended final land use.	Biomass (Dry Matter (kg DM/ha) of pasture vegetation	Biomass (Dry Matter (kg DM/ha) of pasture vegetation is comparable to surrounding agricultural areas.	
			Priority Weed = Weed listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation. The priority weed list can be accessed via the NSW Department of Primary Industries Weedwise Website (or its latest version). Pasture Weeds = those other weeds that are not listed on the Priority Weed list for the Council Area(s) relevant to GCAA operation, however are unpalatable or otherwise pose a risk to the establishment of the desired pasture composition.	Priority weed presence cover is <20%	
			Crop(s) type	Cropping establishment is consistent with the range of species utilised within the region and is resistant to climate change.	

Constellation Copper Mine: Rehabilitation Management Plan



4.2 Rehabilitation Objectives and Rehabilitation Completion Criteria – Stakeholder Consultation

As the Mine was approved within less than 12 months from the preparation of this Plan, no summary, no further consultation has been undertaken other than for the development application / modification application process and the approval of the *Rehabilitation Strategy*. The Company contends that consultation is not currently required due to the contemporary nature of the above.

Table 14 will be updated with further consultation with relevant and interested stakeholders when required.

Table 14 Community Consultation Activities

Stakeholder	Consultation Activities
N/A	N/A
N/A	

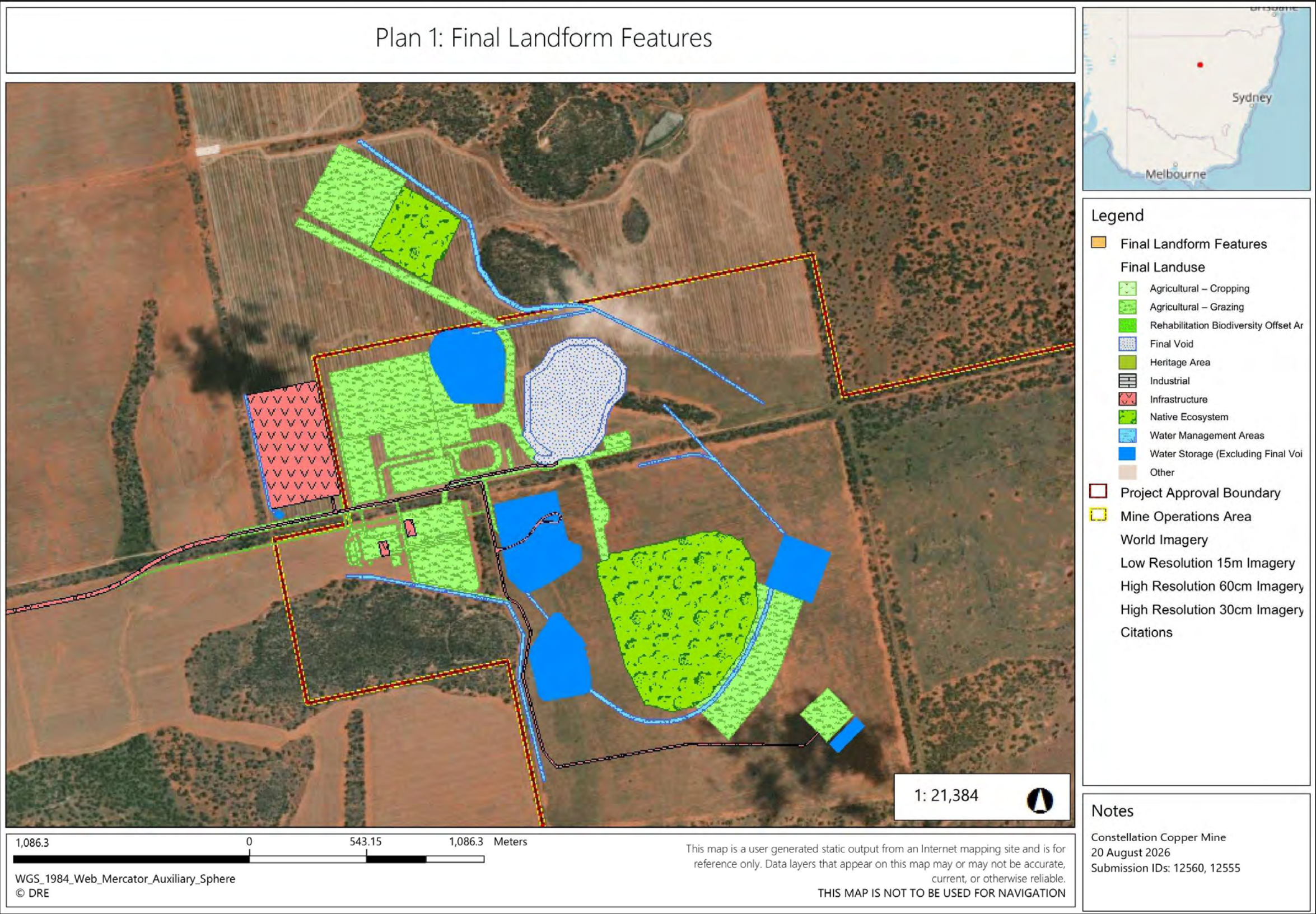
Constellation Copper Mine: Rehabilitation Management Plan

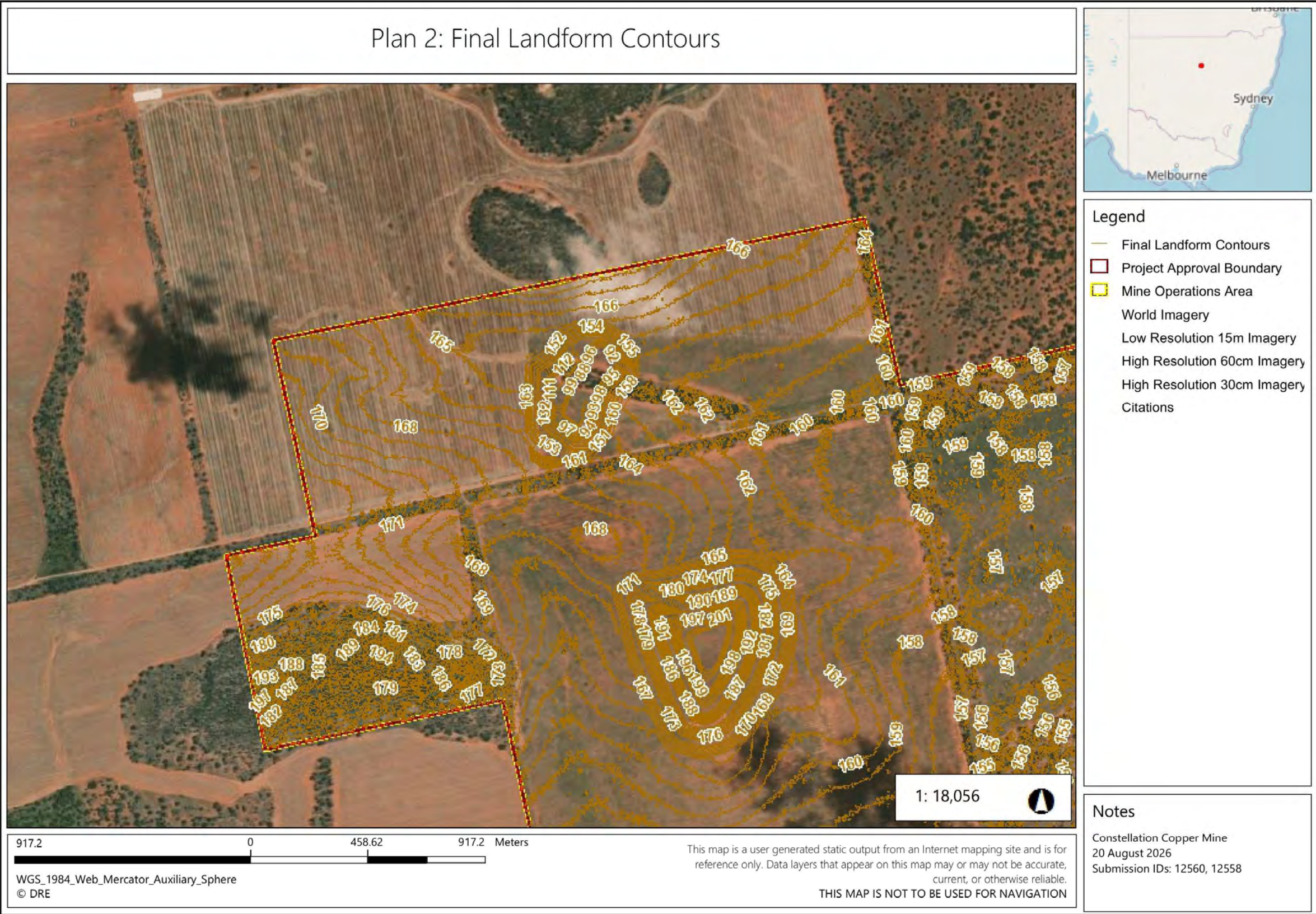


5 Final Landform and Rehabilitation Plan

Final Landform and Rehabilitation Plan

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 73 of 151





Constellation Copper Mine: Rehabilitation Management Plan



6 Rehabilitation Implementation

6.1 Life of Mine Rehabilitation Schedule

TRL will undertake progressive rehabilitation of mining landforms during the operational phases of the project. The purpose of progressive rehabilitation is to:

- stabilise landforms and reduce the amount of exposed soils and stockpiles to manage relevant environmental impacts such as air and water quality, and optimise use of resources for rehabilitation
- reduce closure liabilities and business risk during operational phases of the project;
- allow the refinement of rehabilitation methodologies, following the monitoring of rehabilitation results; and
- allow for earlier relinquishment of mining leases.

Figure 2 depicts the current extent of disturbance at the mine site (i.e. the mining domains). **Plan 3, 4, 5** and **6** present the indicative rehabilitation schedule for the mine site by depicting the proposed areas of progressive rehabilitation at Year 2, Year 5, Year 8 and Year 11 respectively.

Prior to the cessation of mining operations, rehabilitation will only be undertaken in areas which are no longer required for operational purposes. Opportunities for progressive rehabilitation includes significant portions of the WRE (as shown on Plans 3 to 5); with some areas remaining open for the reclaim of NAF for rehabilitation, placement of waste rock materials (from underground operations) and the placement of benign / inert waste materials that may be generated from decommissioning and demolition activities.

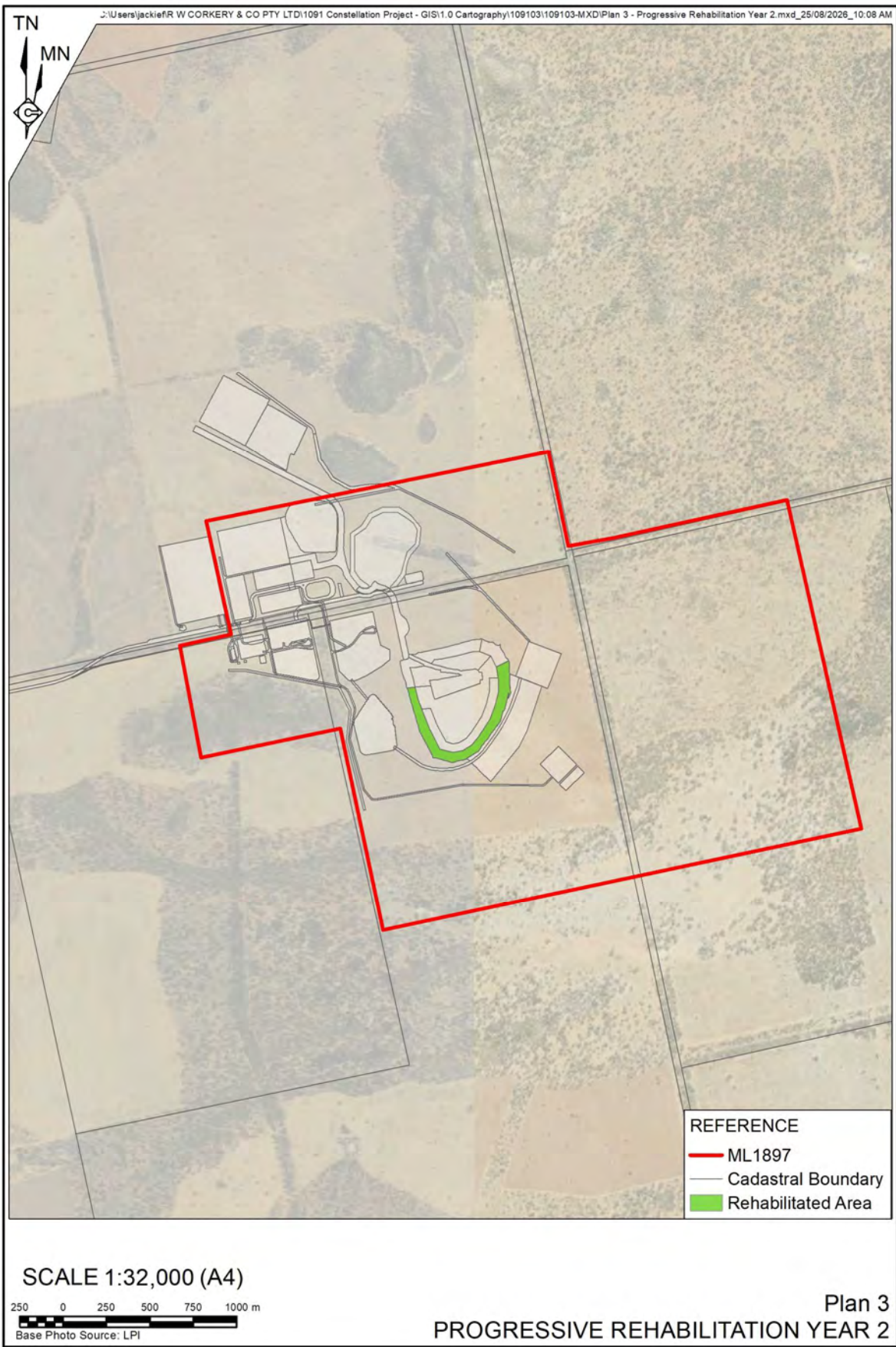
During construction and operational phases, the WRE will be built to the final profile, including the progressive encapsulation of PAF material. As batters are completed, they will be shaped, topsoiled and seeded as described in Section 6.2.3. Progressive rehabilitation of the WRE will generally occur from the lower batters as the WRE is built and from the western and southeastern aspects in a northerly direction. Areas in the upper / northern portion of the WRE will remain open for the placement of waste rock and for the placement of benign / inert waste materials that may be generated from decommissioning and closure activities, such as broken concrete footings etc.

During operational phases, Aeris Resources will consider the viability of metal recovery from the MWS. Should a decision be made that the MWS will not be processed, the MWS and Oxidised Ore Stockpile may be available for early rehabilitation.

The remainder of the surface infrastructure will be required for the active mine life and will be decommissioned and rehabilitated following the cessation of mining.

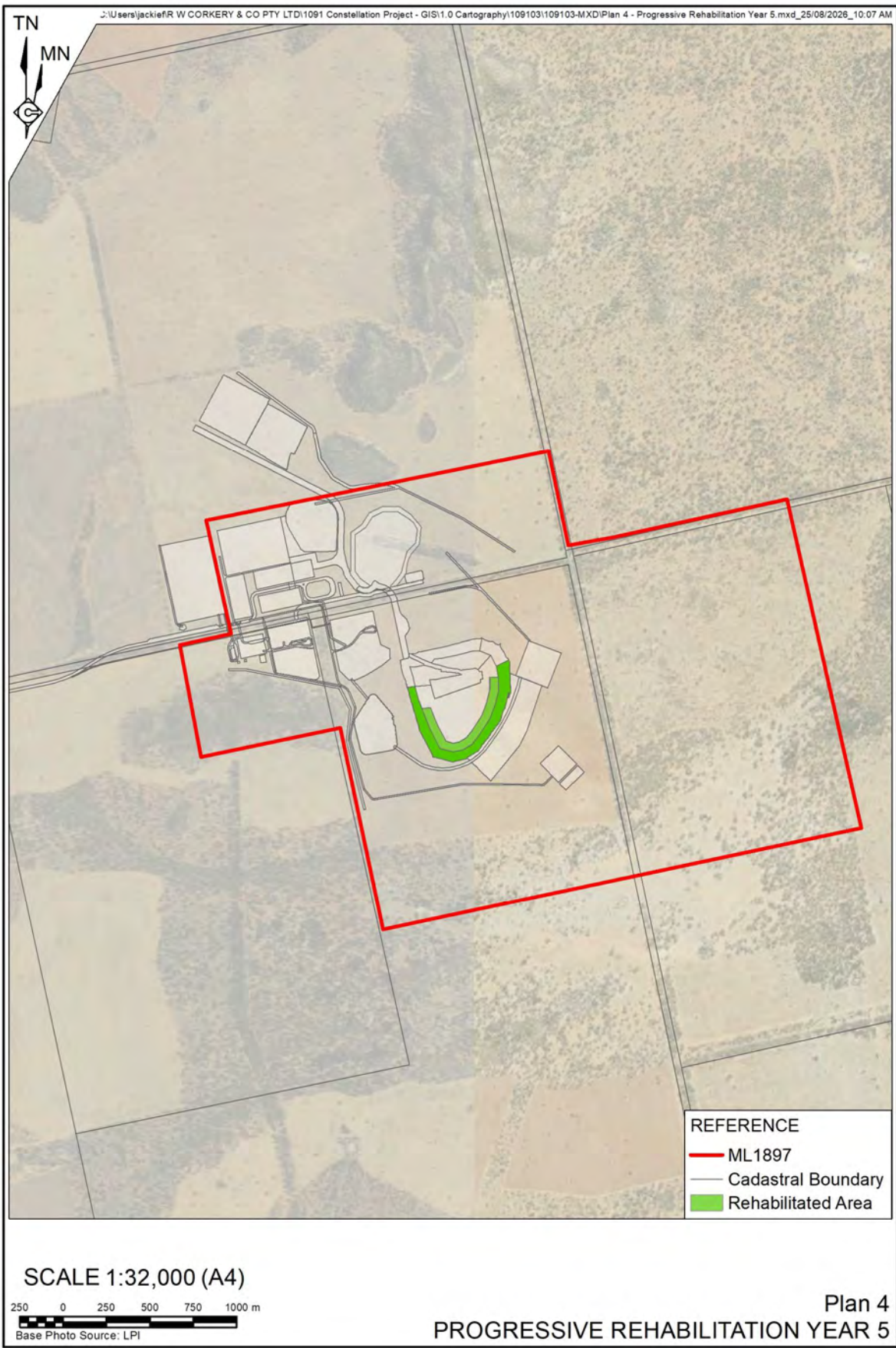
Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 76 of 151

Constellation Copper Mine: Rehabilitation Management Plan



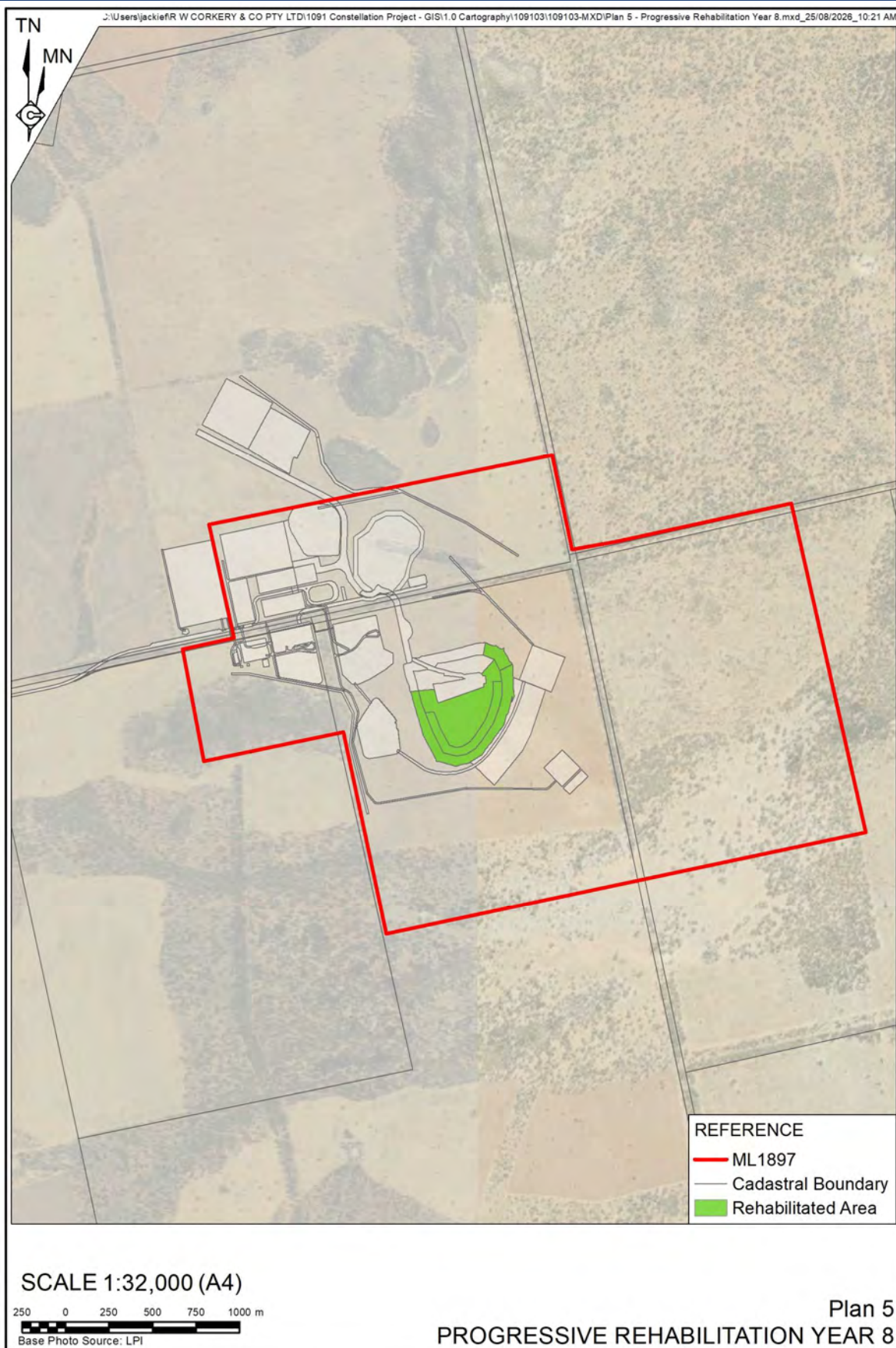
Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 77 of 151

Constellation Copper Mine: Rehabilitation Management Plan



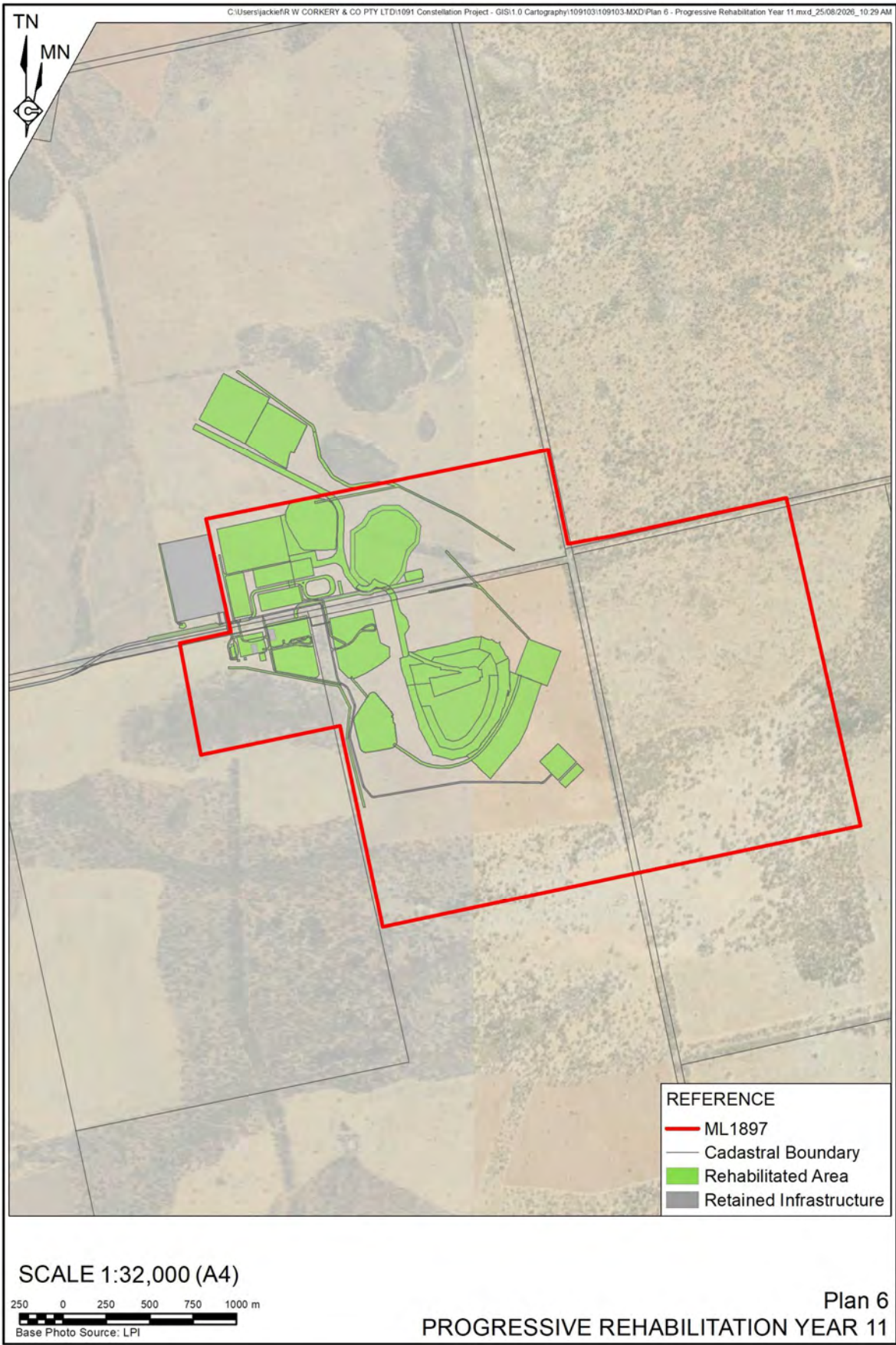
Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 78 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 79 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 80 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Detailed plans and schedules for progressive rehabilitation will be included in the required (and approved) forward programs for the mine site.

6.2 Phases of Rehabilitation and General Methodologies

As required by the 'Form and Way: Rehabilitation Management Plan for Large Mines' (NSW Resources Regulator (2025)), this section of the RMP provides general rehabilitation methodologies to complete the following phases of rehabilitation:

- active mining;
- decommissioning;
- landform establishment;
- growth medium development;
- ecosystem and land use establishment;
- ecosystem and land use development; and
- rehabilitation completion (sign-off).

6.2.1 Active Mining Phase

The following subsections provide a summary of the risks and opportunities for rehabilitation associated with the active mining phase across all mining domains within the Mine Site. These management measures will be applied during the active mining phase in readiness for future rehabilitation activities.

6.2.1.1 Soils and Materials

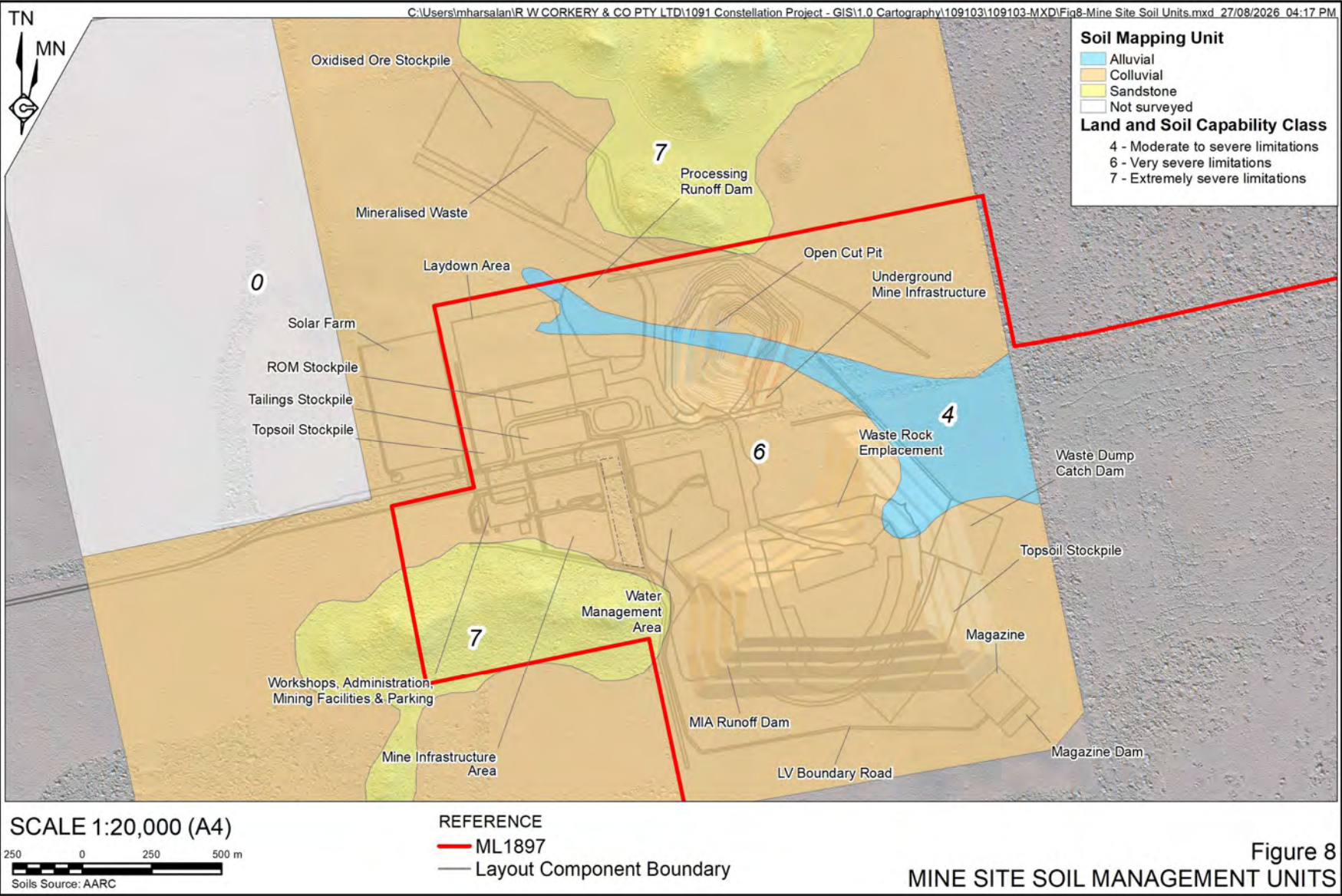
As part of the Constellation Project EIS (AARC 2004), a Land and Soil Capability Assessment was undertaken by AARC (AARC (2023)) (Appendix 17 of the EIS, Land and Soil Assessment) to identify potential constraints associated with site soils.

The soil survey identified the following soil management units (SMU) at the Mine Site, as shown on **Figure 8**.

- Colluvial SMU is located on subdued undulating plains. The colluvial SMU is described as shallow red loams occurring on the gently inclined or level landforms across the majority of the Mine Site. Soil texture is described as loamy throughout, without a strong texture contrast and has a weakly structured B horizon. The profile is alkaline to slightly acidic-to-neutral throughout. Landform pattern is described as level plains (< 1% slope and extremely low relief), contributing to slow runoff. Soil structure is described as massive, coarse textured and shallow, suggesting a moderately permeable and rapidly drained profile. The corresponding Australian Soil Classification is Red Kandosol.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 81 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 82 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Alluvial SMU occurs in low relief areas and forms a minor distribution within the Mine Site. The alluvial SMU is comprised of red loamy soil with a relatively deeper profile than other SMUs, and it is associated with underlying alluvial deposits and Poplar box woodland vegetation. The soil profile is slightly acidic throughout, with no strong texture contrasts and massive B horizons. The landform pattern is described as level plains (<1% slope and extremely low relief), contributing to slow runoff. Soil structure is described as massive, medium textured and moderately shallow, suggesting a highly permeable profile. The profile is considered well-drained due to the relatively deeper profile. The corresponding Australian Soil Classification is Red Kandosol. The corresponding Australian Soil Classification is Red Kandosol.
- Sandstone SMU occurs on the small hills to the north and south of the core areas of the Mine Site. This SMU would not be disturbed and is not addressed further.

During construction and active mining phases of the project:

- Topsoils will be selectively stripped and stockpiled from all proposed disturbance areas (all mining domains) prior to constructing mining landforms and infrastructure. The indicative location of soil stockpiles is shown in **Figure 2**.
- Subsoil would be stripped from selected domains including the open pit, water management areas, and selected infrastructure. Subsoils for the remainder of the mining domains would be left in situ in preparation for rehabilitation and closure and / or to provide foundation materials for mining landforms.

Topsoil

Topsoil containing seed, biota and organic matter will be initially stripped, separately stockpiled and recorded (site survey) for use as the 'final topsoil' for vegetation establishment. Stripping depth will be approximately 250mm and include all groundcover vegetation, sticks (nominally < 10cm in diameter), leaf / grass litter etc which will supplement organic matter within the topsoil stockpiles. Trees, shrubs and larger logs will be removed prior to stripping activities being undertaken.

Topsoil stockpiles will be constructed to a maximum height of approximately 2 metres and shaped to allow the establishment of vegetation (maximum slope of 1:4). Sediment and erosion control measures will be installed around stockpiles and may include sediment fencing, containment berms or other measures.

Should vegetation not adequately establish (to achieve a nominal 70% groundcover), supplementary ripping, seeding or hydromulching may be required to stabilise the stockpile. Alternatively, erosion control blankets, mats and mesh (e.g., geofabric, jute matting, coir blankets) may be used.

Stockpiles, including both topsoil and subsoils, will be monitored for erosion and weeds, with control measures implemented as required.

Where practicable, stripping will be timed to avoid periods of excessive rain or prolonged dry periods, to retain soil structure.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 83 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Where possible, direct placement of stripped topsoils onto rehabilitated landforms would be undertaken.

Subsoil

Subsoils will be stripped and, where not directly required for use in construction, stockpiled separately to topsoil. The location and estimated volume of stockpiles will be recorded as part of site survey. For the purposes of the material balance, stripping depth is assumed to a depth of 2m. However, stripping depth may exceed 2m where suitable material is available (e.g. such as specific soil types and/or geochemistry). Uses may include (but are not limited to) the following.

- used for construction activities such as laydown pads, berm construction, dam wall construction, and other infrastructure elements;
- used as a trafficked low permeability seal above PAF cells within the WRE, to reduce water infiltration;
- blended with topsoil to supplement soil volumes for revegetation (including at other TRL mine sites if required); and / or
- should topsoil resources be exhausted, subsoils may be ameliorated with gypsum, lime, organic matter etc and be used as a supplementary topsoil resource (including at other TRL mine sites).

Subsoil stockpiles will be constructed to a maximum height of approximately 5 metres and shaped to allow the establishment of vegetation. As there is no pre-existing seed bank resource, subsoil stockpiles are required to be seeded or hydromulched to achieve a stable and persistent cover. Alternatively erosion control blankets, mats and mesh (e.g., geofabric, jute matting, coir blankets) may be used.

Sediment and erosion control measures will be installed around stockpiles and may include sediment fencing, containment berms or other measures.

Topsoil and subsoil stockpiles will be surveyed, and signs placed to identify each resource; the purpose of which is to reduce the incidental or accidental use and depletion of these resources. Internal procedures will be developed that require the written approval of the Environmental Superintendent to access and use resources from these stockpiles (such as a 'surface disturbance permit' process or equivalent).

Materials Balance

The Land and Soil Capability Assessment Report (AARC (2023)) (Appendix 17 if the EIS, Land and Soil Assessment) identified that topsoil could be stripped up to a depth of 500mm, however; in order to maximise the suitability of topsoil for revegetation (i.e. containing seed, organic matter, soil biota etc) a stripping depth of approximately 250mm is proposed. Subsoils may be stripped up to a depth of 2.0m. **Table 15** presents a revised materials balance as of Modification 1. TRL will maintain an active biological resources register (materials balance and projection) to track the stripping, storage and use of materials, ensuring sufficient materials are available for rehabilitation. Due to the surplus of soil materials, and in consideration of the maintained Rehabilitation Materials Balance and Projection, TRL may consider the

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 84 of 151

Constellation Copper Mine: Rehabilitation Management Plan



transport and use of suitable soils between its mining operations to improve the overall rehabilitation outcomes at their local operations.

Table 15 Projected / Initial Soils Material Balance

Soil Type	Volume stripped (m³)	Volume Required (m³)
Topsoil	435,000	200,000
Basis for calculation	174ha @ 250mm stripping depth ¹	² 100 ha Spread @ up to 200mm
Surplus / Deficit	Surplus of 235,000m³	
Subsoil	280,000	125,000
Basis for calculation	56ha @ 500mm stripping depth ³	⁴ 25ha Spread at up to 500mm
Surplus / Deficit	Surplus of 155,000m³	
Notes:		
¹ Assumes all mine disturbance area are stripped, excluding soil stockpile locations.		
² Assumes 200mm of topsoil spread over all areas except: open cut pit shell, water dams identified for retention, and minor roads / berms		
³ Assumes subsoil stripped from open cut pit shell, water storage dams and retained for all other landforms / areas as an under-seal, compacted base layer or base layer.		
⁴ Assumes subsoil is used as a low permeability seal over PAF cells within WRE (conservatively estimated at 50% of total area), used to fill ponds / dams subject to rehabilitation.		

6.2.1.2 Flora

The Mine Site is comprised of mostly cleared agricultural land that is subject to grazing by sheep and cattle and cropping activity.

As part of the Constellation Project EIS, (AARC 2024) a *Biodiversity Assessment Report* (BDAR) was completed by EcoPlanning Pty Ltd (EcoPlanning 2025). Two native Plant Community Types (PCT) (including derived / modified communities) were identified as occurring within the Mine Site as shown on **Figure 9**.

The vast majority of PCTs to be impacted from the development of the Mine Site are derived in nature and generally lack shrub and canopy layers and or have been subject to impacts such as clearing, cropping and grazing.

PCT 103 Poplar Box - Gum Coolabah - White Cypress Pine shrubby woodland mainly in the Cobar Peneplain Bioregion

PCT 103 supports open woodlands dominated in the canopy by *Eucalyptus populnea* subsp. *bimbil* together with *Eucalyptus intertexta* (gum coolabah) and *Callitris glaucophylla* (white cypress pine) typically occurring on a flat to slightly undulating landscape on red-brown loam soils which is characteristic of PCT 103. Shrub cover is variable, from dense to sparse, and includes *Geijera parviflora* (wilga) and a number of *Acacia*, *Eremophila*, and *Dodonaea* spp. Density of the shrub layer appears to be influenced by soil moisture and landuse, where density is higher closer to ephemeral drainage

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 85 of 151

Constellation Copper Mine: Rehabilitation Management Plan



lines. Ground cover is dominated by perennial grasses such as *Austrostipa scabra* (speargrass), *Enteropogon acicularis* (curly windmill grass) and *Chloris truncata* (windmill grass) together with herbs such as *Calotis lappulacea* (yellow burr-daisy), *Vittadinia cervicalis* and *Einadia nutans*, with *Maireana microphylla* and *Sclerolaena* sp.

Within the Mine Site, *E. populnea* subsp. *bimbil* forms the dominant canopy throughout, with *C. glaucophylla* present in dense stands in some places. Dieback and dead trees were evident in some patches, which may be due to the drought towards the end of the 2010's. *E. intertexta* is found much less frequently within the subject land. The mid-stratum is dominated by open to sparse *G. parviflora*, with *Eremophila mitchellii* (Budda) and *Abutilon otocarpum* (desert lantern). Patches of *Sclerolaena* sp., *Atriplex stipitata* (mallee saltbush), and *Salsola australis* were also present.

PCT 105 Poplar Box grassy woodland on flats mainly in the Cobar Peneplain Bioregion and Murray Darling Depression Bioregion

PCT 105 is characterised by *E. populnea* subsp. *bimbil* forming the dominant canopy species throughout, with *C. glaucophylla* also being present in high abundance. The midstory is characterised by *E. mitchellii* and *G. parviflora* in high abundance, with common understory herbs being *C. lappulacea*, *Goodenia glabra* and *Sida* sp. Native grasses predominately consist of *Thyridolepis mitchelliana* (mulga Mitchell grass), *A. scabra* and *Eragrostis brownii* (Brown's lovegrass).

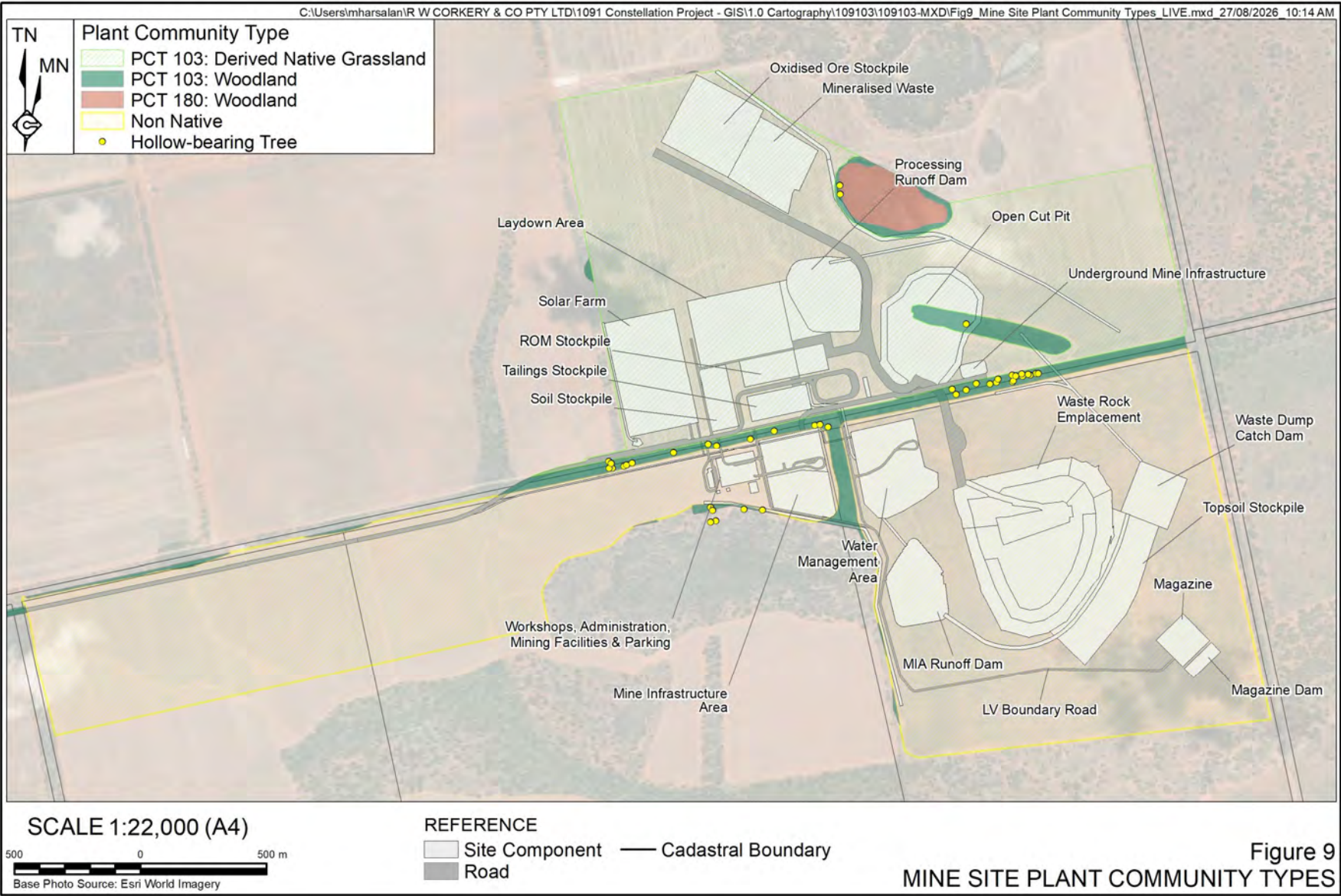
Cleared Land (no PCT)

The southern extent of the Mine Site consists of previously cleared agricultural lands that are subject to seasonal cropping rotations and non-native vegetation.

Target (rehabilitation) vegetation communities are discussed further in Section 6.2.5.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 86 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 87 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Vegetation Management Practices

General vegetation management practices are described in the *Constellation Project Biodiversity and Land Management Plan* and will be continually implemented during the active mining phase.

As relevant to this RMP, during the construction and active mining phases of the Mine, TRL will implement:

- A surface disturbance permit process;
- Pre-clearance survey protocols; and
- A Biodiversity Protection and Enhancement Program (see below Fauna Section).

Further information is provided in the *Biodiversity and Land Management Plan*.

Seed Collection

TRL have an existing seed securement program to ensure that sufficient local provenance seed is available for rehabilitation purposes and the achieving of final land uses. This securement program will maximise the opportunity for seed collection during vegetation clearing activities. The surface disturbance permit process and pre-clearance survey protocol will identify seed resources for collection and initiate / coordinate the collection of seed during clearing activities.

The seed securement program will continue during active mining phases and will be conducted in general accordance with industry guidelines including Florabank Guidelines (Greening Australia) and the 'Restore and Renew Project Webtool' (Royal Botanic Gardens Sydney, 2023). TRL will maintain a seed bank register to track the species stored and volumes of seed available.

Other General Measures

TRL will minimise (to the greatest extent possible) the amount of land disturbed by the Mine. Where land disturbance cannot be reasonably avoided, where possible it will be restricted to cleared farming land. Opportunities to retain native woodland vegetation will be identified and enforced via the Surface Disturbance Permit process.

Habitats including hollow bearing trees and other biodiversity value areas outside of approved disturbed footprints will be retained and protected from direct disturbance and impact through the application of the Surface Disturbance Permit process and where required through the use of temporary or permanent barricading or fencing.

Weed Control

During the active mining phase, weeds at the Mine Site will be controlled in accordance with the appropriate strategy as defined in the Central West Regional Strategic Weed Management Plan 2023-2027 (Central West Local Land Services (2022)), and as described in the Biodiversity and Land Management Plan.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 88 of 151

Constellation Copper Mine: Rehabilitation Management Plan



In general, weed control activities will be undertaken by suitably qualified persons. A summary of key weed control activities may be included in the *Annual Rehabilitation Report* and/or the *Annual Review* for the Mine.

Table 16 lists identified priority weed species that are a known concern in the region.

Table 16 Priority Weeds (Source Central West Local Land Services (2022))

Common name	Scientific Name	Regional Management Priority
Athel pine	<i>Tamarix aphylla</i>	Eradication
Blackberry	<i>Rubus fruticosus</i> (Except cultivars)	Containment
Bridal creeper	<i>Asparagus asparagoides</i>	Prevention
Burr ragweed	<i>Ambrosia confertiflora</i>	Eradication
Carrion flower	<i>Orbea variegata</i>	Eradication
Cats claw creeper	<i>Dolichandra unguis-cati</i>	Asset Protection
Chilean needle grass	<i>Nassella neesiana</i>	Eradication
Coolatai grass	<i>Hyparrhenia hirta</i>	Eradication
East Indian hygrophila	<i>Hygrophila polysperma</i>	Prevention
Fireweed	<i>Senecio madagascariensis</i>	Eradication
Giant Reed	<i>Arundo donax</i>	Eradication
Green Cestrum	<i>Cestrum parqui</i>	Asset Protection
Harrisia	<i>Harrisia</i> spp	Eradication
Honey locust	<i>Gleditsia triacanthos</i>	Eradication
Hudson pear	<i>Cylindropuntia pallida</i> and <i>C. tunicata</i>	Eradication
Hygrophila	<i>Hygrophila costata</i>	Prevention
Johnson grass	<i>Sorghum halepense</i>	Asset Protection
Kidney-leaf mud plantain	<i>Heteranthera reniformis</i>	Prevention
Ludwigia	<i>Ludwigia peruviana</i>	Prevention
Mesquite	<i>Prosopis</i> spp	Eradication
Prickly pears	<i>Cylindropuntia</i> spp	Eradication
Prickly pears	<i>Opuntia</i> spp	Asset Protection
Sagittaria	<i>Sagittaria platyphylla</i>	Prevention
Salvinia	<i>Salvinia molesta</i>	Prevention
Serrated tussock	<i>Nassella trichotoma</i>	Containment
Spiny burr grass	<i>Cenchrus longispinus</i>	Containment
St John's wort	<i>Hypericum perforatum</i>	Asset Protection
Yellow waterlily	<i>Nymphaea mexicana</i>	Prevention

Constellation Copper Mine: Rehabilitation Management Plan



6.2.1.3 Fauna

No specific target fauna species are identified as part of the rehabilitation objectives for the Mine Site.

General fauna management practices are described in the *Constellation Project Biodiversity and Land Management Plan* and will be continually implemented during the active mining phase.

Similar to the above flora section, the management of fauna are subject to the implementation of:

- the surface disturbance permit process;
- pre-clearance survey protocols; and
- A Biodiversity Protection and Enhancement Program.

General Fauna Management Measures

All sightings of threatened fauna will be reported to the Environmental Superintendent.

All native fauna injuries or fatalities (such as resulting from vehicle strike) will be reported to the Environment Superintendent.

TRL will maintain a clean, rubbish-free environment to discourage scavenging and reduce the potential for colonisation by introduced rodents and birds.

Domestic pets are not permitted at the Triton Copper Operations.

Employees and contractors are not permitted to keep native fauna or to encourage fauna through feeding.

Pests

Pests are considered a material threat to native flora and fauna, which can negatively affect rehabilitation outcomes. **Table 17** identifies the range of pests known or likely to be present within and in the vicinity of the Mine Site, control method options and performance measures for each pest species.

Pest animal populations will be monitored and controlled by appropriately qualified and experienced persons. Methods to control feral animals will be selected depending on the severity of the feral animal presence and the potential for harm to non-targeted native fauna.

The procedure for controlling pest animals is as follows.

1. Monitor the abundance of feral animals in the mine development through regular and routine inspections.
2. Identification of target feral animals and suitable control methods (e.g. trapping and/or baiting) and timing.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 90 of 151

Constellation Copper Mine: Rehabilitation Management Plan



3. Implementation of the selected control methods on the target feral animals.
4. Re-monitor (inspect) the abundance of feral animals to evaluate the effectiveness of the control methods.
5. Follow-up control where previous control has been sub-optimal.

Table 17 Pest Management Strategy

Pest Species	Control method	Management Strategy
Fox / wild dog	Control methods may include: • 1080 aerial baiting • 1080 ground baiting	Continued monitoring of fox / wild dog populations. Fox / wild dog control programs will occur on an as needs basis following the identification of significant numbers. Monitoring and implementation of coordinated control programs with neighbouring landholders.
Rabbit	Control methods include: • Warren ripping • Warren fumigation • 1080 (Pindone) baiting and • RHD baiting.	Monitoring populations / warrens through site inspections and observations. Control programs implemented on an as needs basis following the identification of significant numbers of rabbits / active warrens.
Feral Pig	Traditional control methods include: • Live trapping • Strategic poisoning	Monitoring populations through site inspections and observations. Control programs implemented on an as needs basis following the identification of significant numbers of feral pigs / feral pig activity.
Feral Goat	Mustering and trapping programs (for commercial sale). This can be done by attracting goats to a water point to increase captures.	Monitoring of goat populations through site inspections and observations including impacts to native vegetation and rehabilitation success. Control programs implemented on an as needs basis following the identification of significant goat numbers.
Feral Cat	Trapping and destruction.	Monitoring populations through site inspections and observations. Control programs implemented on an as needs basis following the identification of significant feral cat numbers.

Constellation Copper Mine: Rehabilitation Management Plan



6.2.1.4 Rock/Overburden Emplacement

Constellation Waste Rock Emplacement

The WRE will be constructed and operated during the active mining phase. The WRE is located south of the open cut pit and will be constructed to a maximum height of approximately 45m (205RL), be composed of up to 5 lifts and have a footprint of approximately 33 ha. The WRE will store overburden and waste materials from both the open cut pit and underground operations. Wastes will include both Non Acid Forming (NAF) wastes and Potentially Acid Forming (PAF) wastes, the latter of which will be encapsulated within the WRE in a discrete cell.

Prior to constructing the WRE:

- Topsoil will be stripped to a depth of approximately 250mm and stored in stockpiles in preparation for rehabilitation.
- Where feasible, underlying subsoils will be shaped and trafficked to direct any underlying seepage towards the open cut pit.
- A 5m layer of NAF will be placed, prior to the placement of any PAF material.

As material is placed within the WRE, outer faces of the WRE will be shaped and rehabilitated on a progressive basis as described in Section 6.1.

The proposed final land use for the WRE's native ecosystems (Woodland).

Constellation Mineralised Waste Stockpile

It should be noted that the 'as-approved' design and location of the MWS, as identified by SSD 4159871, is currently located outside of ML1897. Originally intended to be located within the mining lease boundary, changes to the mining lease application area were required following approval of the development consent. Consequently, construction and use of the MWS in its approved location cannot occur unless TRL gain approval under the *Mining Act 1992*. Notwithstanding, the anticipated rehabilitation of the MWS has been included in this RMP on the assumption that approval may be attained at a later date.

The MWS will provide for the storage of low grade mineralised (oxide) material, that at some stage in the future may be viable for processing. However for the purpose of this RMP, is planned for rehabilitation, using similar processes, landform design and final land uses to that described above for the WRE.

The MWS will be constructed to a maximum height of approximately 25 m and occupy an 'unrehabilitated footprint' of approximately 7.4ha. Materials placed in the MWS will be sourced from the Constellation open cut pit.

The MWS material is a low grade 'oxide ore' that does not contain elevated sulphides, meaning there is negligible risk of generating acid mine drainage conditions; however may leach salts and metals.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 92 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Prior to constructing the MWS:

- topsoil will be stripped to a depth of approximately 250mm and stored in stockpiles in preparation for rehabilitation; and
- underlying subsoils will be shaped and trafficked to direct any underlying seepage towards the open cut pit.

Waste Rock for Beneficial Purposes

During active mining phases, waste rock will be continually identified as either NAF or PAF and selectively handled and stored to minimise potential adverse environmental impacts and to ensure sufficient NAF material is available for beneficial uses.

Beneficial uses of NAF material may include, but are not limited to:

- road / hardstand sheeting material.
- cover material / growth medium for rehabilitated landforms including being blended with PAF_{LC} to encapsulate WRE PAF cells and form growth medium layers of the WRE
- lining of drains / scour protection / rock armouring.
- transport to other TRL mine sites for use in rehabilitation.
- other off-site uses where deemed suitable (and relevant approvals are held).

The specific use of materials will be subject to risk assessment as to their suitability as required.

The Constellation Project EIS included a *Mine Material and Soil capping Assessment and Management and Final Void Water Balance and Water Quality Assessment* conducted by RGS (RGS 2024) which identified and classified the different waste rock types being extracted from the open cut pit and underground operations. The following table (**Table 18**) provides an interim NAF materials balance which will be further refined and maintained through operational phases.

Table 18 NAF Interim Materials Balance and Projection

Source Materials (Sourced from (RGS 2024))		
NAF Material Description	Source	Volume (LCM*)
Acid Consuming	Open Pit & Underground	738,324
NAF	Open Pit & Underground	1,154,264
NAF _{LC}	Open Pit & Underground	3,174,984
PAF _{LC} **	Open Pit & Underground	640,514
Regolith	Included in Acid Consuming, NAF and NAF _{LC} volumes.	-
Total Available		5,708,086

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 93 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Re-use of materials		
Beneficial Use Description	Basis of calculation	Volume (LCM*)
Ancillary - Carparks, laydown, site roads, drains, etc.	60 ha @ 0.3m depth	180,000
WRE cover design (above PAF cells) (NAF blended with PAF _{LC})	5ha @ 10m deep	500,000
WRE cover design (batters) (NAF blended with PAF _{LC})	28ha @ 3m deep	840,000
WRE growth medium cover (NAF and / or NAF blended with Regolith)	33ha @ 2m deep	660,000
MWS	11ha @ 2-3m deep	330,000
Subtotal		2,510,000
Contingency	30%	753,000
Total Required		3,4263,000
+ (surplus) or – (deficit)		+2,445,086
*LCM : Loose Cubic Metres **PAF _{LC} is proposed to be blended with other NAF materials and used as cover material on the WRE, as such has been included in the NAF materials balance.		

6.2.1.5 Waste Management

TRL generate a number of waste products that require management in order to prevent impact upon the surrounding environment. As relevant to the Constellation Project and this RMP, wastes include:

- Mineralised Waste / Waste rock material.
- Non-mineralised wastes and hazardous wastes.

Waste Management is undertaken in accordance with the *TRL Waste Management Plan* (TRL-HSET-PLN-0031).

The management of mineralised waste / waste rock materials in discussed in Section 6.2.1.1. Management of waste rock is discussed in Sections 6.2.1.4 and 6.2.1.8.

Non-mineralised Wastes and Hazardous Wastes

Non-process wastes include the wide range of waste products generated that are not composed of excavated, mined or processed rock. Wastes range from industrial type wastes such as waste chemicals or scrap steel to domestic style wastes such as kitchen scraps, paper and septic wastes.

TRL aim to maximise the re-use and recycling of materials and minimise wastes that require placement in landfill; TRL generally follow the waste management hierarchy of:

1. Avoid and reduce waste

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 94 of 151

Constellation Copper Mine: Rehabilitation Management Plan



2. Reuse Waste
3. Recycle Waste
4. Dispose of Waste

TRL utilise suitably licenced waste contractors to manage and dispose of wastes and recyclable materials originating from its various operations.

Waste disposal and materials handling practices at the Constellation Project aim to mitigate and manage any risks to the environment, including current and future land uses. In most cases, non-production waste will be collected on the Mine Site and removed for disposal or recycling by a suitably qualified contractor. **Table 19** presents an estimate of the non-production waste and briefly describes how each class of waste is stored and subsequently removed from Mine Site.

Table 19 Waste Storage and Disposal

Waste Type	Storage Management	Removal / Disposal
General waste (including food scraps)	Covered bins or skips located at lunch areas, offices, outside workshops and elsewhere as required. Where these bins are located in open areas they will be fitted with animal proof lids.	Collected on a regular basis by a licensed contractor and transported to an appropriately licensed / approved facility for disposal.
General Recyclables	Covered bins or skips located at lunch areas, offices, outside workshops and elsewhere as required. Where these bins are located in open areas they will be fitted with animal proof lids	Collected on a regular basis by a licensed contractor and transported to an appropriately licensed facility for recycling.
Waste Oils and Greases	Placed within the bunded laydown pad within the workshop area. Where required, smaller, temporary storage containers may be positioned close to work areas, with the contents of those containers transferred to the larger storage tank.	Collected on an as needs basis by a licensed contractor and transported to an appropriately licensed facility for recycling.
Batteries	Placed within a bunded, covered and marked used battery storage area until removed from Mine Site.	Collected on an as needs basis by a licensed contractor and transported to an appropriately licensed facility for recycling.
Light Vehicle Tyres	Placed within a marked used tyre storage area until removed from site	Tyres will be disposed of at a licensed waste management facility or removed by a third party approved to recycle tyres.
Heavy Vehicle tyres	Placed in designated site area.	Re-used on site, disposed on site (subject to approval), or removed from site for disposal (Landfill).

Constellation Copper Mine: Rehabilitation Management Plan



Waste Type	Storage Management	Removal / Disposal
Scrap Metal	Stored in a specified area within the workshop area or elsewhere as required.	Collected on an as needs basis by a scrap metal recycler.
Ablutions	Treated in the on-site septic system (approved by Bogan Shire Council).	The on-site system will be pumped out by a licenced contractor on an as needs basis.
Hydrocarbon contaminated soils (small volumes)	Placed in an onsite bioremediation facility for treatment.	Treated in onsite bioremediation facility. Refer to TRL Waste Management Plan for further detail.

Waste Disposal

Wastes that are required to be placed in landfill will be removed from site by the waste management contractor and placed in a suitably licenced landfill (currently the Cobar waste facility).

Where required to be transported off site, all wastes are transported in specifically designed waste management / compactor trucks by suitably licenced contractors.

6.2.1.6 Geology and Geochemistry

Geology

The surface geology of the area consists of the unconsolidated colluvial and residual sedimentary deposits of the Cenozoic that formed from Quaternary to the present and comprises silty clay, mud, and fine medium grained quartz, sand, polymictic pebble, to cobble gravel.

The unconsolidated residual sedimentary deposits overlay the deformed and metamorphosed Girilambone Group, a highly prospective ground for base metal deposits in NSW. The Girilambone Group comprises fine-grained quartzose quartz-lithic sandstone, micaceous minor intercalations of polymictic conglomerate, siltstone, quartzite, and mafic and intermediate volcanics (Watkins 1996).

Budgery Sandstone (member of the Girilambone Group) outcrops approximately 1 km to the southwest of the Project site. Budgery Sandstone comprises the massive well-foliated fine to medium-grained quartz rich metasandstone to quartzite (Colquhoun et al. 2020).

Great Artesian Basin (GAB) sedimentary rocks underlie the alluvium of the Macquarie-Bogan Catchment to the east of the Mine Site. The rocks are Early to Middle Mesozoic and are overlain by Late Mesozoic age rocks which form a confining layer over the GAB rocks (Giambastiani and Kelly 2010). These rocks are overlain by the Cenozoic (Neogene-Quaternary) unconsolidated sediments which form the alluvial aquifer (Skelt et al., 2004).

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 96 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Soil Geochemistry / Characterisation

A soils materials assessment has been undertaken as part of the Constellation EIS (*Mine Material and Soil capping Assessment and Management and Final Void Water Balance and Water Quality Assessment* (RGS 2024). All relevant soil and regolith within the Mine Site are classified as Acid Consuming (AC), Non-Acid Forming (NAF), or Non-Acid Forming (Low Capacity) (NAF_{LC}) (RGS 2024). Definitions of these classifications is contained in **Table 6**.

There are no physical or chemical restraints or risks that relate to the re-use of topsoil, subsoil and regolith resources for rehabilitation.

Geochemistry / Waste Rock Characterisation

A materials assessment has been undertaken as part of the Constellation EIS (*Mine Material and Soil capping Assessment and Management and Final Void Water Balance and Water Quality Assessment* (RGS 2024) which identified the following materials which will be stored within the WRE (summarised from RGS (2024)).

Geochemical analysis results indicate that 83% of waste rock generated from the open pit and underground operations is classified as NAF (i.e. either acid consuming, non-acid forming or NAF low capacity (NAF_{LC})). Approximately 17% of waste generated from the open pit and underground operations is identified as Potentially Acid Forming (PAF) material (PAF_{LC}, PAF or PAF_{HC}).

Summaries are presented in **Table 20**; definitions of each waste type are also presented.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 97 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Table 20 Waste Rock Characterisation

Geochemical Classification		In-situ volume BCM – Open Pit	In-situ volume BCM – Underground	Total In-situ BCM	% total
AC	Acid Consuming	546,301	606	546,907	12%
NAF	Non-Acid Forming	724,255	130,756	855,011	19%
NAF _{LC}	NAF (Low Capacity)	2,282,988	68,852	2,351,841	52%
PAF _{LC}	Potentially Acid Forming (Low Capacity)	451,758	22,697	474,455	10.5%
PAF	Potentially Acid Forming	173,126	3,610	176,736	4%
PAF _{HC}	Potentially Acid Forming (High Capacity)	49,784	62,542	112,326	2.5%
Total		4,228,212	289,063	4,517,275	100%
Definitions • AF (Acid Forming) – is already producing acid; • PAF_{HC} (Potentially Acid Forming-High Capacity) - will produce acid within days or weeks of exposure; • PAF (Potentially Acid Forming) - has the potential to produce acid; • PAF_{LC} (Potentially Acid Forming - Low Capacity) - has the potential to produce minor acid; • NAF_{LC} (Non-Acid Forming – Low Capacity) - will not produce acid but may leach salts and some metals due to the presence of low sulfide bearing material; • NAF (Non-Acid Forming) – may consume some acid and may leach salts and some metals due to the presence of low sulfide bearing material; and • AC (Acid Consuming) – has acid neutralising capacity (ANC) that will contribute to ongoing acid neutralisation.					

Geochemistry and MWS Characterisation

RGS, as part of their geochemical assessment of the Constellation Project (*Mine Material and Soil capping Assessment and Management and Final Void Water Balance and Water Quality Assessment* (RGS 2024) characterised materials either as having a recoverable grade (to be processed under the current approval) or as mineralised waste (below cut-off and for emplacement within the MWS. It should be noted that the original approval for the Mine included on-site processing via heap leaching. Oxide ore above cut-off grades is now approved to be hauled to Triton Copper Mine for processing.

Oxide Ore (for processing)

- The oxide ore and does not contain elevated sulphides, meaning there is negligible risk of generating acid mine drainage conditions;
- the oxide ore is classified as NAF_{LC} which will not produce acid but may leach salts and metals; and
- oxide ore has the potential to leach copper even if the ore retains circumneutral pH.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 98 of 151

Constellation Copper Mine: Rehabilitation Management Plan



The oxide ore will be blended with the ore feed from all of the TCO mining operations. Consequently, the processing residues are anticipated to be generally consistent with the overall tailings characterisation for the Tritton Tailings Storage Facility.

Mineralised Waste and the MWS

- The MWS material is a low grade 'oxide ore' that does not contain elevated sulphides, meaning there is negligible risk of generating acid mine drainage conditions;
- RGS (RGS 2024) classified the MWS material as NAF_{LC} that will not produce acid, but may leach salts and metals; and
- The oxide material is initially pH neutral, however has the potential to leach copper.

6.2.1.7 Material Prone to Spontaneous Combustion

Not Applicable – no materials are prone to spontaneous combustion.

6.2.1.8 Material Prone to Generating Acid Mine Drainage

As described in the above section, material prone to acid and metalliferous drainage (AMD), containing elevated sulphides will be extracted from both the Constellation open cut pit and underground Mine. During active mining phases PAF materials:

- from the open cut pit will be placed and encapsulated within the WRE;
- from underground mine will either be:
 - placed within the WRE PAF cells (while the open pit is in operation);
 - placed within the base of the open pit void (following the cessation of open pit mining), where it will ultimately be stored sub-aqueously; or
 - preferentially utilised for the backfill of underground stopes.

PAF Materials within the WRE

The following management measures will be implemented during the active mining phase to manage risks associated with PAF materials.

Prior to the placement of waste rock materials, excavation and mechanical compaction of base materials (after the topsoil is removed) is required to "key-in" the WRE and (where feasible) slope the excavated floor towards the open pit. The intent of this is to direct all possible seepage through the WRE into the final void.

Operational procedures will be developed to ensure PAF and NAF materials are segregated and selectively handled to ensure that there is no cross contamination or errors made in the handling and placement of materials. Following testing, PAF_{LC} will be blended with NAF and used as cover material.

A 5m layer of NAF material will be placed at the base of the WRE before placing PAF_{HC} and PAF material.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 99 of 151

Constellation Copper Mine: Rehabilitation Management Plan



The PAF_{HC} waste is the most reactive and would be contained with PAF waste in a discrete cell in the centre of the WRE (**Figure 10**) and covered with a 0.5 m thick low permeability seal (10^{-8} m/s.) (subsoils) and trafficked to achieve 95 % standard Proctor compaction (RGS (2024)). PAF materials are to be placed in lifts to optimise mechanical compaction.

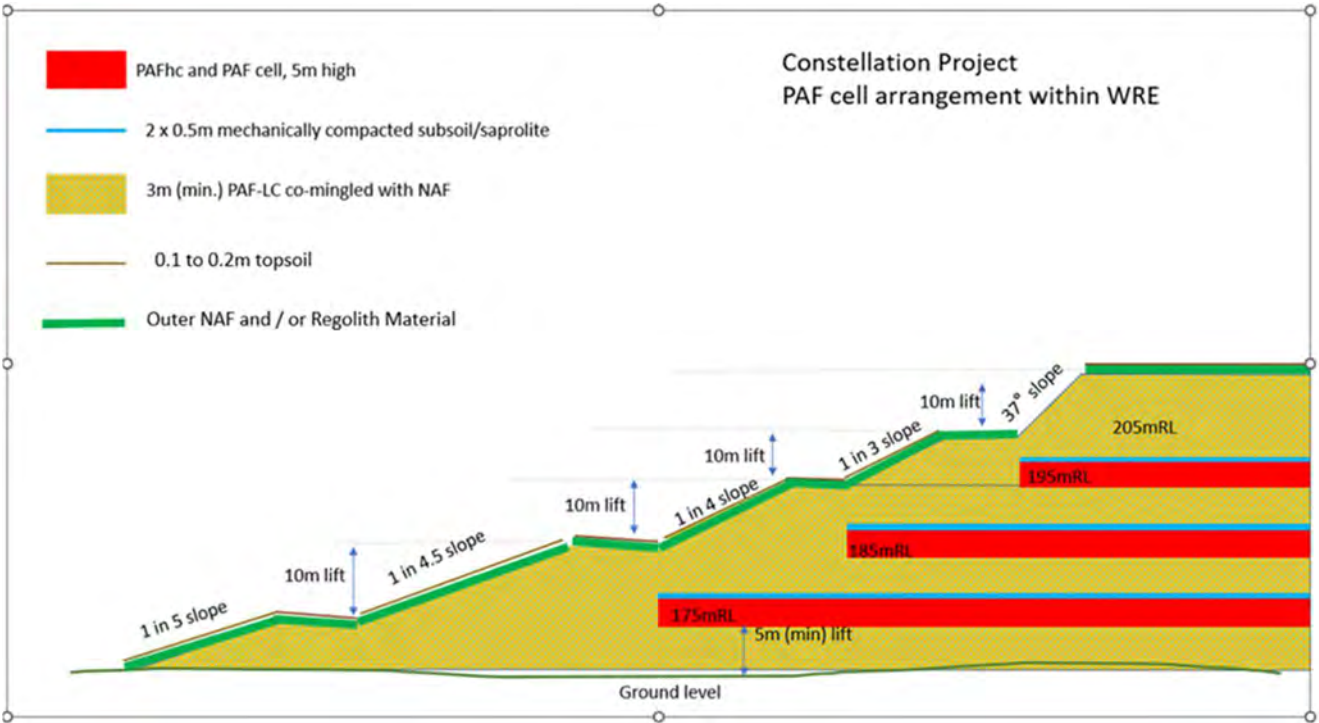
The top of each PAF cell may be shaped to a 3-5% grade and then sheeted in compacted (trafficked) clay rich subsoil to maximise lateral rather than vertical movement of water inside the WRE so that toe and basal seepage is reduced. Where possible, the low permeability seal may be sloped to shed any seepage waters to the north, to facilitate passive post closure flow of seepage towards the open pit (i.e. north of the natural watershed).

PAF material is to be preferentially contained in the centre of the WRE and not extend under any shaped batters (**Figure 10**).

The PAF waste will be covered by a minimum of 3m of NAF mine waste (blended with PAF_{LC}) to be placed vertically above the encapsulated PAF cell (**Figure 10**).

Outer surfaces, including the top tier of the WRD will have a 2m store and release soil cover system (achieving a total cover of >5m).

Figure 10 Schematic – WRE Construction / PAF Encapsulation



The geochemical assessment undertaken (RGS (2024)) indicates waste rock has elevated average values of As, Cu, and S when compared to topsoil/subsoil samples. Water soluble metal(loid) and kinetic leach column (KLC) analyses verify that antimony, arsenic, copper, cobalt, manganese, molybdenum, nickel and zinc, are the elements that may be present in WRE seepage and the pit lake.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 100 of 151

Constellation Copper Mine: Rehabilitation Management Plan



The low proportion of mineralised waste rock in what will become the final pit shell at the end of open pit mining and the low proportion of (PAF) mine waste in the waste rock emplacement (5% of the 4.2 M bank cubic metres) has verified that there is a low potential for the open pit or the WRE to produce Acid and Metalliferous Drainage (AMD) (RGS (2024)).

During the operation and post closure of the mine, and subject to water quality sampling and analysis, seepage from the WRE will likely be unsuitable for direct release to the wider environment or for any post mining land uses (without treatment), as such seepage will, where feasible, be passively directed to the open pit void (via open drains) where it will be contained. To prevent soil and potential groundwater contamination, drains may require lining, for example using high-density polyethylene (HDPE) liner and rock covering (or other suitable low permeability lining). Drain areas will be fenced to prevent access by livestock in the post closure landscape, as required. The location and design of drains will be included in a proposed post closure surface water management plan.

6.2.1.9 Ore Beneficiation Waste Management (Reject and Tailings Disposal)

No tailings will be produced at the Constellation Mine Site. Tailings produced from the processing of Constellation ore will be stored at the Tritton Copper Mine Tailings Storage Facility; which will be rehabilitated in accordance with the *Tritton Copper Mine Rehabilitation Management Plan*. A portion of mixed tailings (i.e. generated from the various ore sources processed at the Tritton Copper Mine), will be transported from the Tritton Copper Mine for the filling and stabilisation of underground stopes.

Geochemical analysis conducted by RGS (2024) indicated that both the Tritton and Constellation tailings materials are classified as PAF_{HC} and may become increasingly acidic following a lag period of some six months under laboratory controlled oxidising conditions. Tailings from Tritton, that are produced from a number of (similar) orebodies including the Constellation ore body will be trucked from Tritton to Constellation and backfilled to the underground void as cement paste fill. With emplacement in underground workings with minimal exposure to oxidation, the tailings are projected to remain pH neutral. At closure when dewatering of the underground void ceases the groundwater table will rebound inundating the pH neutral paste tailings ensuring the tailings remain pH neutral in perpetuity.

The surface tailings stockpile location (prior to cementation and disposal underground) may be subject to some surface contamination from the oxidation of tailings and the leaching of metals and salts. The location of the stockpile site is within the overall site water containment system with any runoff water generally reporting to the open cut pit. The stockpile site will nonetheless be subject to contamination assessment and remediation measures as described in Section 6.2.2.

6.2.1.10 Erosion and Sediment Control

An assessment of soil and erosion potential was undertaken as part of the Constellation Project EIS (*Land and Soil Capability Assessment* (AARC (2023))).

Based on the characterisation of soil units, the main risk to soils within the Mine Site is soil erosion. Relevant types of soil erosion that may impact the mine development area include sheet and rill/channel erosion, as well as wind erosion. Sedimentation may also occur, as a result of erosion, where eroded material that is being transported by runoff and deposited on other ground surfaces.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 101 of 151

Constellation Copper Mine: Rehabilitation Management Plan



The risk of soil erosion and sedimentation within the mine development area will be increased by the following activities:

- clearing of vegetation and disturbance of stable topsoil;
- vehicle tracks and road construction;
- construction of infrastructure (including drainage to divert surface water); and
- topsoil stripping and stockpiling.

AARC (2023) made several recommendations to reduce the risk and impacts of erosion. TRL will incorporate these measures into site design and rehabilitation plans where appropriate. Recommendations include:

- limiting land clearing to the minimum amount of land required for the safe operation of the Mine Site and the mining area;
- diverting overland flow/runoff around disturbed areas;
- using sediment control structures to minimise the release of water and suspended sediments into the receiving environment;
- revegetating disturbed land with native vegetation to mimic the pre-existing landscape;
- direct placement of topsoil with additional organic matter to help preserve the seed bank and keep the soil material cohesive to reduce erosion;
- where required, seeding topsoil as soon as possible after placement onto rehabilitated areas, to ensure root masses assist in mitigating erosion;
- placing topsoil stockpiles away from drainage areas, roads, machinery, transport corridors, and stock grazing areas; and
- as required, seeding or covering topsoil stockpiles with a water-shedding lining to prevent unnecessary erosion of soil while stored.
- With regard to the above recommendations:
 - The site layout has been designed to enable the capture, containment and recycling of sediment laden water as shown on **Figure 2**.
 - The site layout includes clean water diversions to ensure that upgradient surface runoff does not enter the mine disturbed areas and collect sediment, prior to discharging to the natural environment.
 - Landform evolution modelling will be undertaken following commencement of the construction of mining landforms to assess the long term stability of landforms and to ensure annual erosion rates are less than 10t/ha during vegetation establishment. Any key findings will be considered for inclusion into landform designs.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 102 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Landforms have been designed with a maximum slope of 1:3 (18 degrees) to facilitate vegetation establishment and the binding of soils to prevent erosion. Rehabilitation methodologies include:
 - ripping parallel with the contour;
 - the use of cover crop species to supplement target vegetation communities;
 - engineered designed drains and drop structures to manage water flow; and
 - a post closure surface water management system to ensure surface waters do not pose an ongoing risk of erosion or sedimentation.
- Seeding and stabilisation of topsoil and subsoil stockpiles is addressed in Section 6.2.1.1.

6.2.1.11 Ongoing Management of Biological Resources for Use in Rehabilitation

Soil Stockpiles

Once established and stabilised / revegetated (as described in previous sections) soil stockpiles will be inspected on a regular basis to:

- ensure they are stable / vegetated and not subject to erosion / loss of materials;
- assess any unauthorised use / removal of materials;
- assess any grazing or impact by pest species; and
- assess weed populations and whether control is required.

Where required remedial actions will be developed and implemented to correct any findings from inspections.

Management of Adjacent / Remnant Vegetation

Management of existing vegetation and plant communities within and in the vicinity of the Mine Site helps maintain ecosystem resilience and productivity. As the sourcing of propagation material from locally occurring species form the basis of revegetation strategies for the Mine Site (excluding exotic pasture species), these activities form part of an overall risk management strategy for management of biological resources.

Remnant vegetation areas adjacent to approved mine disturbance locations will be protected from inadvertent access and damage from mine construction and operational activities. Areas are identified and included in the Biodiversity Protection and Enhancement Program as described in Section 6.2.1.2. Maintenance measures include inspections, monitoring, weed and pest control and maintaining any erected fencelines (to exclude livestock and pest species).

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 103 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Seed Store

As described in Section 6.2.1.2, TRL have an existing seed securement program to ensure that sufficient local provenance seed is available for rehabilitation purposes and the achieving of final land uses. Any seed held / stored by TRL will be in a secure location, with seed stored in general accordance with industry best practice guidelines including Florabank Guidelines (Greening Australia).

Salvage and Storage of Habitat Structures

Biological resource stockpiles are recorded in the Biological Resource Stockpile Register, including the location and type of stockpile as well as a photographic record. Stockpiles will be inspected on a periodic basis to ensure:

- habitat resources are not being inadvertently removed or impacted (such as for collection of firewood); and
- weeds and pests are controlled

6.2.1.12 Mine Subsidence

Underground mining methods are modified to suit the grade and geometry character of the ore body, which will be determined over time as more data becomes available from drilling and development within the mineralisation. Open stope methods require the use of backfill material to stabilize the underground workings. At the Constellation project, backfill material will include:

- PAF and excess NAF material recovered from underground mining; and
- Tailings material transported from the Tritton Copper Mine.

The backfilling of open stopes will prevent any subsidence due to mining. Minor subsidence risk will remain for any underground mining operation, however subsidence is not expected.

6.2.1.13 Management of Potential Cultural and Heritage Issues

The Constellation Project EIS (AARC 2024) included Cultural Heritage and Historical Heritage Assessments, conducted by Niche Environment and Heritage (Niche 2025)¹.

No historical heritage items or risks are present in areas subject to this RMP

The cultural heritage assessment identified a total of 45 sites (across the total project area including haul road alignment), which included scarred trees, isolated finds, artefact scatters, hearths and potential archaeological deposits. The management of cultural heritage sites is detailed in the *Constellation Project Cultural Heritage Management Plan*.

¹ As amended during Response to Submissions and project Amendment Report.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 104 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Within the Constellation Mine Site area, 14 sites were identified.

- Nine of which will be avoided and protected from any inadvertent damage during construction and active mining phases (**Table 21** and **Figure 11**)
- Five of which are approved for harm / removal (**Table 22** and **Figure 11**)

Salvage of sites Oven 1, Okeh 3, and Okeh Scar Tree 27 was completed during May 2026 (OzArk, 2026)

Table 21 Cultural Heritage Sites - Not Approved for Harm

Site No.	Site Name	Features	Management Measure
26.3.0198	Okeh 7	Isolated Artefact	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction.
26.3.0203	Oven 6	Hearth and PAD	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction
26.3.0204	Oven 5	Hearth and PAD	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction
26.3.0205	Oven 7	Hearth and PAD	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction
26.3.0220	Okeh Scar Tree 25	Scarred Tree	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction
26.3.0221	Okeh Scar Tree 26	Scarred Tree	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction
26.3.0223	Okeh Scar Tree 32	Scarred Tree	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction
26.3.0224	Okeh Scar Tree 33	Scarred Tree	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction
26.3.0225	Okeh Scar Tree 35	Scarred Tree	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction

Table 22 Cultural Heritage Sites Approved for Disturbance

Site No.	Site Name	Features	Type of harm	Degree of Harm	Management Measure
26-3-0197	Okeh 6	Artefact scatter and PAD	Indirect	N/A	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction.
26-3-0199	Oven 1	Hearth	Direct	Total	Excavation and salvage
26-3-0206	Okeh 1	Artefact scatter and PAD	Indirect	N/A	Temporary fencing with a 5 m 'No Go Zone' buffer during development construction.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 105 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Site No.	Site Name	Features	Type of harm	Degree of Harm	Management Measure
26-3-0208	Okeh 3	Artefact scatter and PAD	Direct	Partial	Portion of site within infrastructure footprint to be salvaged. Remainder of site to be permanently fenced during development construction.
26-3-0222	Okeh Scar Tree 27	Scarred Tree	Direct	Total	Salvage and relocation.

During the construction and active mining phase, the following management measures (from the *Constellation Project Cultural Heritage Management Plan*) will be implemented to manage cultural heritage aspects associated with the mine site:

- The general workforce will be trained in the identification and management of cultural heritage sites through the site general induction.
- A surface disturbance permit must be issued prior to the disturbance of vegetation or soil. The surface disturbance permit process includes the identification of cultural heritage sites and enforces the implementation of management and / or protective measures.
- An Unexpected Finds Protocol will be implemented where a previously undiscovered item (including potential skeletal remains) is encountered during the construction or active mining phase of the project (applying to both cultural and historical heritage items).
- Report and manage any inadvertent damage to an Aboriginal object or historical heritage item.
- All salvaged material will be stored in a locked facility in consultation with registered aboriginal parties (RAPs). An inventory prepared by a suitably qualified archaeologist will be kept of the objects within the facility.
- Scarred trees subject to salvage and relocation will be undertaken in consultation with RAPs.

Items that are not approved for disturbance and protected from harm during construction and active mining phases (**Table 21**) will be inspected on a periodic basis and photographed on an annual basis to ensure protective measures remain effective.

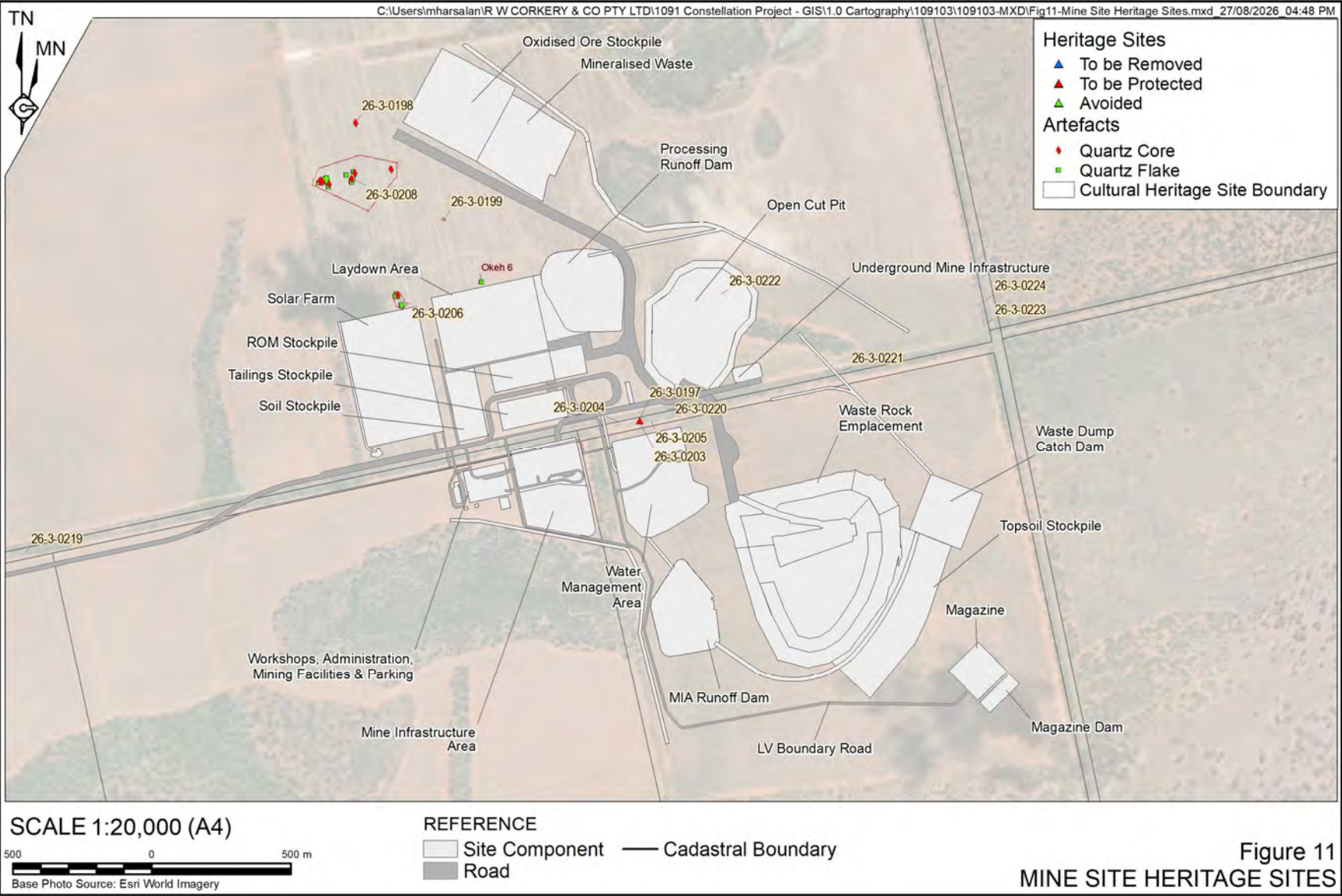
6.2.1.14 Exploration Activities

Underground exploration and infill drilling will be undertaken during the active mining phase. In general, surface exploration activities within the Mine Site will largely occur within existing surface and/or underground mining areas. Notwithstanding, in the event of exploration activities requiring rehabilitation, all exploration-related disturbance will be rehabilitated in accordance with relevant guidelines and industry best practice. This may include the following key activities.

- Removal and/or lawful disposal of all consumables and waste.
- Removal of drill cores.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 106 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 107 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Cap and rehabilitate all drillholes.
- Removal of all surface infrastructure and mobile plant.
- Visual assessment of residual disturbance/rehabilitation areas to identify potential contaminants.

6.2.2 Decommissioning

The decommissioning and demolition of infrastructure will be undertaken in accordance with Australian Standard AS 2601-2001 *The Demolition of Structures* (Standards Australia (2001)) (or its latest version).

6.2.2.1 Site Security

General Access

Public access to the Mine Site will not be permitted.

During the active mining phase, site security will generally consist of:

- A secure exclusion perimeter fence and signs warning of active mining and associated hazards and no unauthorised entry.
- Secure and controlled site entrance (such as boom gate / electronic swipe tag systems), where only authorised and inducted personnel are permitted to enter the active mining site.

These controls will generally continue throughout the decommissioning and other rehabilitation phases of the project, however, may be modified as permanent security facilities at the site entrance will ultimately be removed.

During the final phases of rehabilitation, namely the Ecosystem and Land Use Development Phase, any remaining relocatable infrastructure used to control site entry will be removed unless suitable for retention for post-mining land uses (i.e. general farm security).

It should be noted that the Mine Site is located a significant distance from any population centres and therefore is considered to be a very low risk with regard to the potential for public access. Hence, accidental/inadvertent access to the Mine Site is not considered possible.

Open Pit Void

At the completion of mining, a regolith/ NAF rock safety bund will be retained around the pit shell and a safety fence (and signs) installed to prevent unauthorised access to the pit rim. The safety bund and fence will be placed with a suitable offset from the pit rim based on the final pit geotechnical assessment.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 108 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Land Access Agreements

Various areas of the Mine Site and surrounds are managed by TRL under land access agreements with relevant landowners. TRL will maintain consultation with potentially affected parties to ensure that decommissioning and rehabilitation of the Mine Site is undertaken in a way that does not present any significant risks to surrounding landowners or productive enterprises.

6.2.2.2 Infrastructure to be Removed or Demolished

The infrastructure domain includes a variety of typical mining built assets including workshops, site based electricity generation (including a solar farm), administration and ablution facilities, ancillary mining infrastructure areas, roads, power distribution, etc. **Figure 2** (refer to Section 2.4.2 for a more comprehensive list of infrastructure items). As relevant to this RMP, the Infrastructure Domain includes the site access road and buried water pipeline within the ML boundary.

In accordance with the approved *Constellation Project Rehabilitation Strategy* (TRL-HSET-PLN-0046), further consultation will be undertaken (during the active mining phases of the project) with stakeholders such as surrounding landholders, Bogan Shire Council, the NSW Resources Regulator and other potential industrial users to determine any future industrial or alternate uses for the mine site and infrastructure. The Company will implement the following activities during decommissioning.

- Any residual chemicals or other stored hazardous chemicals will be removed from site, every effort will be made to utilise and / or run down any stored chemicals or hydrocarbons prior to the cessation of mining.
- Any remaining ore or tailings material will be removed from stockpiles and from within general infrastructure areas, and placed within the WRE, including within PAF cells for applicable material.
- Where required, infrastructure will be cleaned (e.g. using high pressure water) to remove any built-up contaminants, which will be captured in existing operational water containment structures and systems.
- Water management facilities will remain in place and operational during decommissioning and demolition activities to ensure contaminated or runoff waters are captured to prevent release; associated pumping systems and pipelines used to manage runoff waters will remain operational.
- Areas / plant subject to demolition will be disconnected from all services including water, compressed air, electricity etc and tested for dead (the absence of stored energy).
- Prior to demolition, infrastructure will be inspected (by a suitably qualified / experienced person) and confirmed that no native fauna are residing in built infrastructure.
- Demolished materials are further cleaned (if required) sorted into general wastes and recyclable materials. Quality controls are implemented to ensure that only cleaned and uncontaminated materials are allowed to leave site.
- Items identified for retention, compatible with the agreed final land use will be assessed by a qualified engineer to determine their suitability for future use and risk assessed.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 109 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Pending the above assessments, all surface based built infrastructure, which is not required for future land uses will be demolished. Inert and non-polluting wastes may be disposed within the underground workings or within the WRE². Other wastes will be removed from site and disposed at a licenced landfill facility, including the TCM approved landfill site for applicable waste materials.
- Where feasible, re-use and recycling opportunities will be investigated and implemented.
- Residual chemicals, high risk contaminated materials will be removed from site and disposed in accordance with industry requirements. Low / medium risk contaminated materials may be disposed on site at a suitable site location.
- Contaminated soils will be assessed, removed / remediated where required and validation sampling undertaken (to meet NSW National Environment Protection Measure (Assessment of Site Contamination) (NEPM) requirements (DCCEEW (2013)) to ensure there are no residual contamination liabilities remaining at the site.
- The general area will be shaped, backfilled where required (with non-acid forming material (NAF) rock, regolith or subsoils) and shaped to blend in with the surrounding landforms.

Water Management Infrastructure

Water management areas include clean water diversions, internal drains and bunds, process runoff dam, waste dump catch dam, MIA runoff dam, mine water dam, raw water dam, and various sediment control dams (**Figure 2**).

For all infrastructure/dams to be removed, the following general process will be implemented.

- Any contaminated waters will be removed from dams with water to be removed from site or placed within the open pit (depending on the nature / degree of contamination).
- Where required any HDPE liners (or equivalent) will be removed and disposed.
- Contaminated soils will be assessed, removed / remediated where required and validation sampling undertaken (to meet NSW NEPM requirements (DCCEEW (2013)) to ensure there are no residual contamination liabilities remaining at the site.
- Any embankments will be removed, dams backfilled with NAF rock, regolith or subsoils and shaped to blend in with the surrounding landforms.

The MIA runoff dam and waste dump catch dam will be retained and maintained during rehabilitation and closure phases to ensure any turbid waters are not released to the wider environment. All other dams will be assessed for retention where suitable to support agricultural land use. The assessment will include review of the results of contamination assessments, maintenance requirements, and review of water licencing.

² Subject to any required approvals

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 110 of 151

Constellation Copper Mine: Rehabilitation Management Plan



During site rehabilitation activities, any water accumulating in the MIA runoff dam and waste dump catch dam will be pumped to the open pit void. Once areas, such as the WRE and general site are revegetated, and suitable groundcover established and pending the assessment of water quality parameters, waters will be permitted to exit these structures and enter the natural environment.

Monitoring of surface water, undertaken during the operational phase of the project will continue during the rehabilitation and closure phases where relevant in accordance with the approved *Constellation Project Water Management Plan* (TRL-HSET-PLN-0047).

Infrastructure Corridor

The buried pipeline (also containing other infrastructure such as communications (fibre optic) and power line conduit etc) between the existing Murrawombie mine and the Constellation mine site will be left in situ and may be considered as part of post closure land use options (Constellation Project Rehabilitation Strategy (TRL-HSET-PLN-0046)). If no future use of the pipeline is proposed, the pipeline (and other infrastructure) will be disconnected and capped at both ends of the pipeline. As built survey plans will be provided to Bogan Shire Council for future reference.

6.2.2.3 Buildings, Structures and Fixed Plant to be Retained

The Infrastructure Area domain includes items that will be retained for post mining land uses. The infrastructure final land use domain is principally associated with the infrastructure mining domain.

Items to be retained and compatible with final land uses of agriculture include:

- sheds / structures suitable for agricultural use;
- Solar Farm / sited based electricity supply;
- water infrastructure (see below); and
- roads.

Further items to be retained post mining are subject to future discussions with adjacent landholders and other stakeholders such as Bogan Shire Council, and approval from DPHI and the NSW Resources Regulator.

Following consultation with stakeholders and the formal identification of infrastructure to be retained, an engineering assessment will be undertaken to validate that the infrastructure is suitable for post mining land uses and there are no health, safety or environmental risks associated with its retention and future use.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 111 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Retained water infrastructure

As identified in the Constellation Project EIS (AARC 2024), several water management structures will be retained post closure to benefit proposed agricultural land uses including for the watering of livestock.

The dams and any associated drains / spillways will be included in a post closure surface water management plan.

Retained water management structures, will be inspected by a suitably qualified civil engineer to validate that the structure is suitable for post mining land uses and there are no health, safety or environmental risks associated with retention and future use.

Any remaining water in site water dams will be tested to ensure that it is fit for purpose, with any unsuitable water pumped to the open pit final void.

Removal of sediment and any liners from mine water dams will occur as required as part of the closure and rehabilitation process.

Contamination assessment will be conducted to ensure suitability for post mining land uses.

Monitoring of surface water, undertaken during the active mining phase of the project will continue during the decommissioning and closure phases where relevant in accordance with the approved *Constellation Project Water Management Plan* (TRL-HSET-PLN-0047).

The dams and any associated drains / spillways will be included in a post closure surface water management plan

6.2.2.4 Management of Carbonaceous/Contaminated Material

Hydrocarbons, Chemicals and Wastes

Despite designs that prevent or contain spills, there nonetheless remains a risk that land within the surface infrastructure areas may become contaminated during rehabilitation and closure activities (e.g. from hydrocarbon spills, storage of fuel and chemicals, refuelling activities, sewage, etc). Risks related to the handling of hydrocarbons, chemicals, and other waste materials during rehabilitation will be managed under operational management plans, including the *Environmental Management Strategy*, the *Pollution Response Incident Management Plan*, and other site-specific procedures.

Contaminated soils

TRL maintains a Contaminated Lands Register that identifies areas that may pose a risk of contaminated soils or materials, including the following.

- Chemical storage, decant and fill locations.
- Hydrocarbon storage, decant and fill locations.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 112 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Areas where spills have occurred, however due to the presence of built infrastructure or operational use, the full assessment and remediation of soils has not been possible during the active mining phase.
- Areas where sulfidic ores or wastes (including tailings) may have been stored.
- Machinery maintenance areas, including washbays / oil water separator areas etc
- Waste storage locations (particularly liquid wastes, batteries etc)
- Water containment areas where runoff from any of the above areas may be captured / stored (including drains leading to site water dams).

During active mining phases, TRL will, where possible clean up, assess, remediate and validate any areas where chemical or hydrocarbon spills have occurred. During the decommissioning phase, TRL will further identify, remediate and validate potential areas of contamination.

The process for managing contaminated lands will be generally conducted as per EPA procedures and guidelines and include the following steps.

1. Contamination sampling, remediation and validation reporting will be undertaken or overseen by an EPA accredited site auditor.
2. Using the Regis Contaminated Lands Register as a base, conduct a formal contaminated land assessment of 'at risk' areas.
3. Undertake additional surface survey of other potential risk areas that may not have been identified in the contaminated lands register, however, may have become apparent during decommissioning and demolition activities.
4. Develop a Remedial Action Plan to manage the contaminated lands.
5. Develop assessment criteria using the *National Environment Protection (Assessment of Site Contamination) Measure (NEPM) guidelines* (NEPC (2013)) and processes that are suitable (from a risk perspective) for post-mining land uses.
6. Implement the Remedial Action Plan through the removal of identified contaminated materials. Materials disposed of within PAF cells of the WRE (pending allowance in EPL) or at a licenced land fill as appropriate.
7. Undertake validation sampling to ensure sufficient material has been excavated.
8. Backfill with clean NAF materials followed by subsoils and topsoil as applicable to the final land use.
9. Produce validation report(s), verifying that the Remedial Action Plan has been correctly implemented and there are no residual liabilities for future landowners or risk to future land uses. Validation reports produced by or signed off by an EPA accredited site auditor.
10. If required, any Environmental Management Plans relating to residual contamination are itemised on the relevant land title.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 113 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Contaminated Waters

High risk contaminated waters will be removed from site and disposed in accordance with industry requirements. Low / medium risk contaminated waters will be placed within the open pit void.

6.2.2.5 Hazardous Materials Management

In addition to measures described in above, there are several potential 'hazardous materials' risks that are likely to occur within the Mine Site, including the following.

- Radiation devices (documented in a Radiation Devices Register)
- Hazardous Chemicals (documented in ChemAlert Register)
- Explosives.

As described above, prior to the demolition of infrastructure items will be identified and removed prior to demolition. All hazardous materials will be removed and disposed of as per industry and legal requirements. Documented records will be kept of processes undertaken and waste tracking for disposal.

Explosives will be stored in a magazine facility designed to meet the separation and design requirements in Australian Standard AS 2187.2 2006 *Explosives – Storage, Transport and Use* (Standards Australia (2006)). Stored explosives material will be run-down during final mining operations so that there is negligible remaining material during decommissioning. Any residual explosives material will be removed for use at other TRL mine sites or otherwise by a suitably licenced person.

6.2.2.6 Underground Infrastructure

At the completion of mining, services to the underground mine such as water supply, electricity supply and dewatering pumps etc would be disconnected, any re-usable items would be decommissioned and removed from the underground workings. Following the cessation of any required access to the underground workings, ventilation services will be turned off and decommissioned. Underground workings will be allowed to gradually fill with groundwater.

At the completion of mining, any surface ventilation infrastructure will be removed, and an engineered concrete cap will be constructed over the ventilation shafts. The engineered cap will be designed, inspected and signed off by a qualified and experienced engineer.

6.2.3 Landform Establishment

6.2.3.1 Water Management Infrastructure

Retained Site Water Dams

Retained water management structures, will be inspected by a suitably qualified civil engineer to validate that the structure is suitable for post mining land uses and there are no health, safety or

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 114 of 151

Constellation Copper Mine: Rehabilitation Management Plan



environmental risks associated with retention and future use. This will include an assessment of spillway suitability and condition. Long-term monitoring and management requirements will be confirmed in consultation with suitably qualified persons. All relevant information will be maintained suitable for communication to all relevant stakeholders (e.g. future landholders) as required.

Post Closure Surface Drains

New surface drains may be required to (passively) direct seepage waters from suitable portions of the WRE and MWS to the final void. Drains will be designed by an engineer to ensure they are capable to controlling a 1% AEP (100 year ARI rainfall event). As these seepage waters will likely contain elevated metals and salts, drains will require lining to minimise the risk of soil and / or groundwater contamination. Subject to engineering design, drain design may include the following features.

- A wide drain with gently sloped banks (to retain cover materials and allow fauna escape).
- Hdpe lined (or lined with other suitable materials) to prevent soil or groundwater contamination.
- Covered in fine materials such as regolith / NAF rock to protect the liner from damage (including UV damage).
- Rock lined to provide stability, scour protection and allow the escape of fauna.
- Fenced to exclude domestic stock.

During operational phases of the project, the location of post closure surface drains will be determined and designed.

6.2.3.2 Final Landform Construction: General Requirements

This section applies to underground infrastructure areas and all remaining disturbed areas of the site, with the exception of the WRE, MWS and open pit void which are included in the below sections; post closure surface drains are included in the above section.

Ventilation shafts

Two ventilation shafts are located within the Mine Site (see **Figure 2**). Following the installation of a concrete cap, the cap will not be covered in soil to allow post closure monitoring. Drainage diversion bunds will be established around the capped shafts to prevent any surface runoff from seeping / entering the underground workings and ultimately compromising the cap. Potential erosion from water running off the concrete cap will be monitored until suitable vegetation is established on surrounding soils. The capped areas will be fenced (with an established buffer/offset as determined by the engineer) and signs placed to prevent unauthorised personnel and livestock from entering the area.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 115 of 151

Constellation Copper Mine: Rehabilitation Management Plan



General remaining disturbed areas

Following the removal of all required infrastructure (i.e. infrastructure not identified for post mining land uses) the areas (subject to the final land use of Agriculture – grazing) will be shaped (if required) to blend in with the surrounding topography.

Roads (including any associated bunds / drains) and hardstand areas will be ripped to break up compacted layers and shaped where required. Material will be stripped and deposited within the final void.

Any areas that require fill material to blend with the natural topography, would be filled with either regolith / NAF material and / or subsoils.

Any areas where subsoils may have been compacted will be deep ripped.

The area will be generally shaped to create an environment suitable for the grazing of livestock through the use of bulldozers and or graders to smooth the profile and remove any irregularities.

6.2.3.3 Final Landform Construction: Reject Placement Areas and Tailings Dam

Waste Rock Emplacement

WRE Conceptual Landform Design

Two conceptual land form designs were considered as part of the Constellation EIS; option 2 is presented in this RMP as the preferred landform design.

The conceptual landform design for the WRE (Option 2) is generally based on existing natural landforms found in the vicinity of the mine site. The overall profile of the WRE aims to achieve a similar 'domed plateau' and 'concave slope' that merges with the natural topography. It should be noted that **Figure 7** and **Plan 2** show the "as constructed" landform of the WRE, prior to final shaping. The Option 2 conceptual design is depicted in **Figure 12**.

The conceptual design presented below remains subject to amendment following trials, proposed landform evolution modelling (to be conducted prior to construction of the second lift), geotechnical assessment (factor of safety of 1.5, unless otherwise agreed by the Resources Regulator), ongoing rehabilitation materials assessments and refinement of the WRE profile.

Key features of the WRE Conceptual Landform Design (Option 2) (**Figure 12**) include the following.

- Staged (decreasing batter angle) slopes on each tier from top to bottom to provide an overall concave slope to maximise long term stability:
 - WRE plateau. shaped / domed to shed water (no pooling of water);
 - Tier 5 1:4 (14°) (10m lift);

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 116 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Tier 4 1:4 (14°) (10m lift);
- Tier 3 1:4 (14°) (10m lift);
- Tier 2 1:4.5 (12°) (10m lift);
- Tier 1 1:5 (11°) (5m lift) and shaped to blend with natural soil surfaces; and
- Between each tier, a 10m wide reverse graded berm will be established to control runoff from the surface of the WRE.

Prior to commencing placement of WRE material:

- a landform evolution model will be developed to validate the stability of the WRE; and
- a final surface water design for the WRE will be undertaken to ensure berms, drains and drop structures are appropriately sized and constructed. Nominally, surface water drainage design (including drop structures) will be designed to manage 1:20 rainfall events. Sediment dams will be designed to contain 5 day 90th percentile rainfall event. Once stable and vegetated, surface runoff will be directed by drains and drop structures and allowed to enter natural drainage systems and leave the mine site.

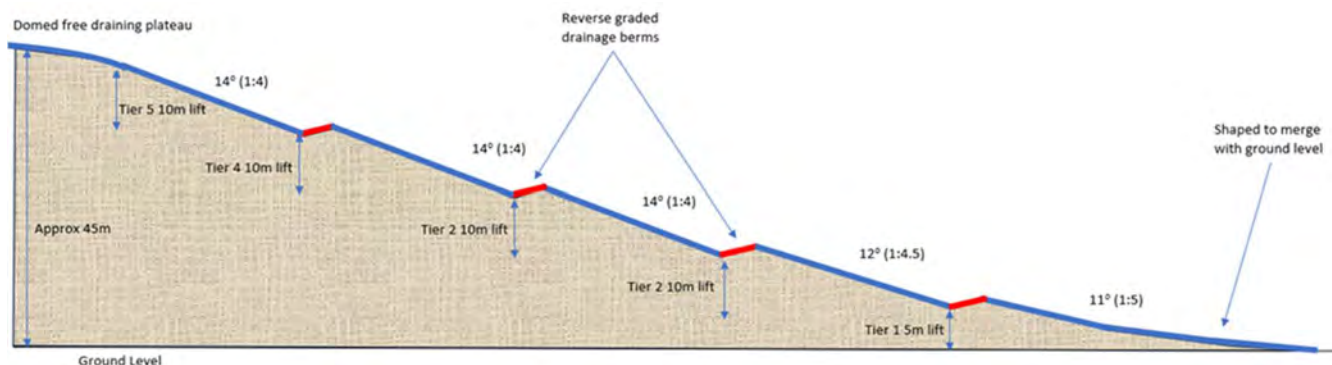
Outer batters will be covered with 2m of suitable soils and / or NAF material to sustain plant growth.

Small rehabilitation trials may be undertaken to validate the final outer WRE materials and risks to achieving the final land use including the selective and beneficial use of regolith materials.

The final WRE profile will be 'smoothed' to provide macro and micro relief to the landform, with the aim or further aligning the WRE with natural topography and to reduce the 'engineered' outer profile of the WRE. Key drainage controls will remain place and maintained to ensure the stability of the landform. Detailed design of the smoothed profile will be undertaken during active mining phases.

Seepage from suitable portions of the WRE will be directed to the open cut pit void as described in previous sections.

Figure 12 WRE Conceptual Landform Profile



Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 117 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Long Term Geotechnical Stability

A geotechnical assessment was undertaken as part of the Constellation Project EIS by PSM; *Constellation Deposit Open Pit and Underground Geotechnical Design and Groundwater Inputs* (PSM 2024). The report summarises the geotechnical assessment and findings related to open pit slopes, and WRE.

PSM (2024) assessed the proposed WRE landform design (and is also considered applicable to the MWS landform design) as described and concluded:

- The proposed slope angles of the WRE are based on closure requirements including erosion management, with capacity for storage of PAF. The closure overall slope angles (maximum 1V:4H) and bench face angles (1V:3H) are flatter than what is required for geotechnical global stability.
- The long-term geotechnical stability of these slope angles is considered adequate based on the shallow slopes, limited dump height and advantageous geotechnical conditions.

During detailed WRE design, additional geotechnical assessments (factor of safety of 1.5, unless otherwise agreed by the Resources Regulator) will be conducted as noted above.

Mineralised Waste Stockpile

The mineralised waste stockpile will provide for the storage of low grade mineralised (oxide) material, that at some stage in the future may be viable processing. However for the purpose of this rehabilitation strategy, is planned for rehabilitation, using similar processes, landform design and final land uses to that described above for the WRE.

The MWS will be constructed to a maximum height of approximately 25 m and occupy an 'unrehabilitated footprint' of approximately 7.4ha.

Final Land Form

The overall conceptual profile of the MWS aims to achieve a similar 'domed plateau' and 'concave slope' that is consistent with the natural topography. The MWS conceptual design is depicted in **Figure 13**.

The conceptual design presented below remains subject to amendment following trials, proposed landform evolution modelling (to be conducted prior to construction of the second lift), geotechnical assessment, ongoing rehabilitation materials assessments and refinement of the MWS profile.

Key features of the MWS Conceptual Landform Design (Figure 4 4) include the following:

- Staged (decreasing batter angle) slopes on each tier from top to bottom to provide an overall concave slope to maximise long term stability:
 - MWS plateau Shaped / domed to shed water (no pooling of water);

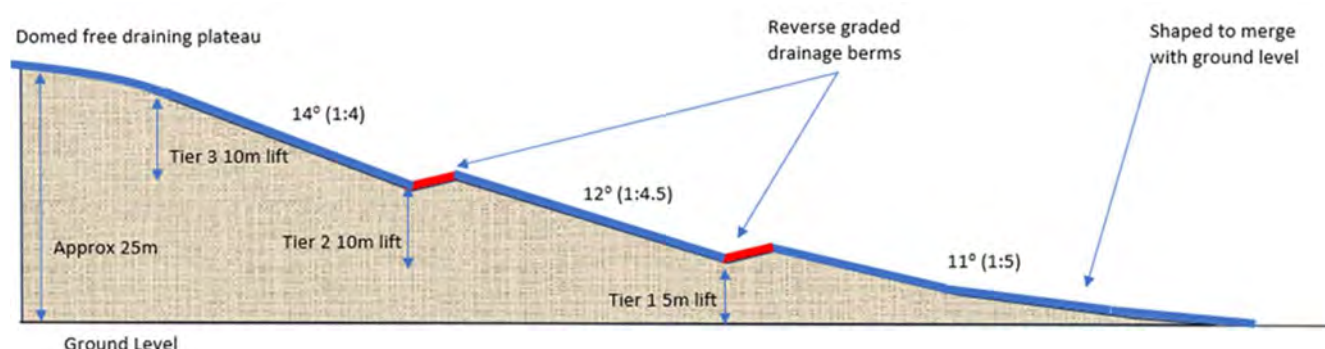
Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 118 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Tier 3 1:4 (14°) (10m lift);
- Tier 2 1:4.5 (12°) (10m lift);
- Tier 1 1:5 (11°) (5m lift) and shaped to blend with natural soil surfaces; and
- Between each tier, a 10m wide reverse graded berm will be established to control runoff from the surface of the MWS.

Figure 13 MWS Conceptual Landform Profile



Prior to commencing placement of MWS material:

- a landform evolution model will be developed to validate the stability of the MWS; and
- a final surface water design for the MWS will be undertaken to ensure berms, drains and drop structures are appropriately sized and constructed. Nominally, surface water drainage design (including drop structures and sediment dams etc) will be designed to manage a 5% AEP (20 year ARI) rainfall events.

As there are no elevated sulfide materials in the MWS, RGS (2024) concluded that a low permeability seal (to reduce water and air infiltration) is not warranted. RGS (2024) recommends that a similar cover to the WRE is sufficient and would be composed of a store and release cover consisting of 2-3m of regolith and / or NAF material. The low rainfall environment in the area, where evaporation / evapotranspiration greatly exceeds rainfall indicates that a vegetated cover will suitably limit water infiltration and limit the generation of seepage.

Small rehabilitation trials may be undertaken to validate the final outer MWS materials and risks to achieving the final land use including the selective and beneficial use of regolith materials.

The final MWS profile will be 'smoothed' to provide macro and micro relief to the landform, with the aim or further aligning the MWS with natural topography and to reduce the 'engineered' outer profile of the MWS. Key drainage controls will remain place to ensure the stability of the landform. Detailed design of the smoothed profile will be undertaken during operational phases.

Seepage from the MWS will be directed to the open cut pit void as described in previous sections.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 119 of 151

Constellation Copper Mine: Rehabilitation Management Plan



6.2.3.4 Final Landform Construction: Final Voids, Highwalls and Low Walls

The open pit will be mined early in the mine life for the initial 2-3 year period. The approved final depth of the pit is approximately 120 metres deep and will occupy a surface footprint of approximately 12ha. During operations the pit rim will contain an earthen safety bund. The design, construction and operation of the pit is further described in Chapter 3 of the EIS.

At the completion of mining, the open pit shell will not be backfilled and will remain an open void that will eventually form a 'pit lake' (terminal sink) (RGS (2024)). Retention of the pit as a void is critical to the closure of the mine site as:

- PAF material from underground mining development and operations may be placed at the base of the pit as a lower risk storage option (than placement in the WRE); and
- ongoing seepage from the WRE and MWS will be passively directed to the pit for long term containment (to be included in a post closure surface water management plan).

At the completion of mining, a regolith/ NAF rock safety bund will be retained around the pit shell and a safety fence (and signs) installed to prevent unauthorised access to the pit rim. The safety bund will be placed with a suitable offset from the pit rim based on the final pit geotechnical assessment.

A final void water balance model has been prepared by RGS (*Mine Material and Soil capping Assessment and Management and Final Void Water Balance and Water Quality Assessment* (RGS 2024) (Appendix 15, Geochemical Assessment). The following presents a summary of the key findings of RGS (2024).

- The pit void will act as a 'terminal sink' where groundwater will, under hydraulic pressure, continue to flow into the void and not into the surrounding environment.
- With all surface runoff and seepage inputs from the WRE entering the pit lake it would take approximately 100 years for the elevation of the pit lake to reach equilibrium at about RL 135m. This is about 10 m below the pre-mine groundwater elevation. Water would not spill from the pit shell and be released into the wider environment.
- Seepage inputs from the WRE decrease the pH and contribute major ions and metal(oids).
- The model suggests that the pH of the pit lake water would be in the order of pH 4.5 at 100 years and remain in this range for the duration of the model (600 years).
- The total dissolved solids (TDS) concentration would be in the order of 5,000 to 7,000 mg/L at 100 years.
- Because there is no loss of major ions or metals the TDS will increase through evapo-concentration and be in the order of 12,000 to 24,000 at 600 years.
- Under a terminal sink scenario, the pit lake is unlikely to provide a beneficial use unless the water is treated prior to use.

The approved final land uses includes the retention of water management areas (Section 6.2.2) that will provide complimentary livestock watering resources for the agriculture (grazing) final land use. The

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 120 of 151

Constellation Copper Mine: Rehabilitation Management Plan



capture and containment of contaminated seepage waters (from the WRE and MWS) in the final void, which is expected to decrease over time, is not expected to materially reduce the availability of surface waters for livestock watering (that will be captured and stored in the water management areas). It is considered that the capture and containment of contaminated seepage waters in the final void is the safest, lowest risk and most sustainable closure option for these waters. An alternate treatment (and release) option, which is expensive, energy intense and at risk of failure / poor performance is not justified for the relatively small volumes of water that may be recovered and available for beneficial use.

Long Term Geotechnical Stability

A geotechnical assessment was undertaken as part of the Constellation Project EIS by PSM; *Constellation Deposit Open Pit and Underground Geotechnical Design and Groundwater Inputs* (PSM 2024). The report summarises the geotechnical assessment and findings related to open pit slopes.

In summary, with the objective of achieving the stated slope design acceptance criteria (refer to PSM (2024), PSM (2024) recommended a:

- 10m offset between soil and crest of rock slope for surface water control;
- bench face angle of 60 degrees for the initial 0-4m depth of the pit;
- bench face angle of 75 degrees for the remaining depth of the pit;
- general bench height of 10m, with 20m suggested for some areas; and
- berm width of between 6 and 10m.

PSM (2024) also stated: *"For mine closure it is understood that the open pit landform will be enclosed by a bund and allowed to fill naturally with water. This is considered beneficial for long term slope stability. It is understood that alternative uses of the open pit landform could be considered in future studies, and changes would require a review of the geotechnical impacts."*

Prior to the completion of mining operations, a further geotechnical assessment will be undertaken and will include any learnings or observations from the active mining phase of the open pit. The purpose of the additional assessment is to ensure that pit walls are stable, that no slipping or walls failures are likely and to inform the placement of the final bund and fence (factor of safety of 1.5 unless agreed otherwise by the Resources Regulator). Based on the assessment, upper walls of the pit shell may be modified (shaped) and the proposed bund and fence will be suitably offset to ensure they are removed from any potential risk areas and remain effective long-term safety barriers. Other recommendations will be considered and implemented as required.

6.2.3.5 Construction of Creek/River Diversion Works

Not applicable, no creek / river diversions are associated with the project.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 121 of 151

Constellation Copper Mine: Rehabilitation Management Plan



6.2.4 Growth Medium Development

As stated in Section 6.2.1, topsoils will be salvaged from all proposed site development areas and either directly applied to rehabilitation areas where feasible, or otherwise stockpiled for rehabilitation activities.

The Land and Soil Capability Assessment undertaken for the Constellation Project EIS (AARC 2023) included a number of recommendations to improve existing soil resources with the objective of improving overall rehabilitation outcomes. The following recommendations will be considered and applied by TRL where practicable.

Topsoil Sampling

Prior to the spreading of topsoil (including those soils directly placed on rehabilitated landforms), the testing of soil properties will be carried out. Key parameters that will be considered during this testing include pH, Exchangeable Sodium Percentage (ESP), Cation Exchange Capacity (CEC) (major cations), organic matter content and other essential nutrients such as nitrate, phosphorus and sulphate (sulphur). Fertiliser ameliorants will be selected to address any identified deficiencies in topsoil prior to spreading and will be based on interpretation and advice from agronomists (for agricultural final land uses) or other suitably qualified persons (native ecosystem final land uses).

Subject to soil testing and analysis results, AARC (2023) identified the likely required addition of gypsum, lime, organic matter and fertilisers to improve overall rehabilitation outcomes.

Gypsum Application

The poor structural stability of the Colluvial and Alluvial SMU's (See Section 6.2.1.1) is attributed to soil texture and low organic matter content. Structural stability issues may be enhanced through addition of a low-grade, coarse granular gypsum (hydrated calcium sulphate), allowing clay particles to form stable aggregates. Coarse grade gypsum has porous structure that provides more surface area than conventional gypsum sources. This allows finer gypsum particles to fully dissolve into the soil solution quickly, while larger particles provide a slow release source that will not be leached from sandy soils.

Note that lower quality gypsum is not highly soluble, and its significant effects on soil properties may be slow. Therefore, it is recommended for gypsum to be applied during the respreading process or prior to deep ripping to allow soil to be mixed by these processes. Initial spreading, followed by repeated applications of 2.5 – 5 t/ha broadcasted every few years is recommended to provide long term improvement to soil structure.

Fertiliser Application

The low concentration and imbalanced distribution of nutrients in soils can be ameliorated by fertiliser application. It is noted that some ameliorants (such as ammonium-based fertilisers) can contribute to an acidifying effect, hence, care must be taken when selecting fertiliser types to be applied.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 122 of 151

Constellation Copper Mine: Rehabilitation Management Plan



All SMUs were determined to be slightly acidic to acidic (pH of 5.6–6.9), requiring agricultural lime (calcium/magnesium carbonate) application (at approximately 1 t/ha) to neutralise the acidifying effects of certain fertilisers upon application. A follow up pH test is necessary to evaluate the need for additional lime applications. Lime should be applied initially in small doses, gradually increasing application rates as necessary.

Based on laboratory analysis results, the following recommendations (to be reviewed following soil testing and analysis) are provided to improve nutrient availability of topsoil for rehabilitation. An alkaline di-ammonium phosphate (DAP) fertiliser is recommended to satisfy these requirements on an acidic soil with micronutrient additions (e.g. copper granules and zinc sulphate monohydrate). Prior to the re-spreading of stockpiled topsoil, the proposed sampling and analysis program will verify fertiliser needs including the correction of any soil deficiencies.

Organic Matter Application

The soils within the proposed mine site area generally contain relatively low organic carbon content and are naturally low in humus. The addition of organic matter is favourable and is expected to improve soil structure, ameliorate pH values, soil buffering capacity, essential soil nutrient levels (especially nitrogen), and water holding capacity.

Depending on availability, organic matter (such as mulches, manures, or compost) can be incorporated into the topsoil material at the time of rehabilitation (to be reviewed following soil testing and analysis). The addition of organic matter to such soils improves soil structure by creating a binding effect with clay minerals and water to eventually create humus, which binds the soil particles into aggregates. These are more resistant to physical breakdown and are essential for a healthy topsoil. Humus increases soil moisture retention, protects against both wind and water erosion, and provides an important source of nitrogen, phosphorus and sulphur, besides the major cations.

Organics incorporated into the topsoil will also increase organic carbon levels, providing more exchange sites for necessary cations, increase water holding capacity, and ensure less organic matter is oxidised into carbon dioxide and nitrous oxides.

Should sources of organic material be available, suggested application rates are presented below:

- straw mulch can be applied at rates of up to 8 t/ha;
- hay mulches can also be applied at 8-10 t/ha;
- manure should be incorporated at rates of 5–30 t/ha (depending on the type of manure); or
- compost can be applied at 70–100 t/ha.

Surplus stockpiled woodchip material may also be placed as an organic mulch within areas to be rehabilitated to native woodlands. Application rates will depend on the amount of material available.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 123 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Topsoil Depth and Preparation

Topsoil is proposed to be spread across all landforms at a minimum depth of 100mm, and up to 250mm deep.

Topsoil will be spread by load, haul, dump, spread (bulldozer, scraper or grader) techniques.

Required ameliorants (as determined through soil testing and analysis as described above) will be applied across the spread soil.

Prior to seeding, or leaving for rehabilitation to naturally occur from stored seeds within the soil, the topsoil will be deep ripped or scarified as followed:

- Where applied for final land use areas of native ecosystems (WRE and MWS), topsoil will be deep ripped with a multi-tynd ripper, such as attached to a grader or bulldozer. Ripping will occur at a suitable depth to allow soil to be blended with underlying waste rock, and the bringing of some rock to the surface to create a 'rocky soil mulch' and assist in creating microclimates for seed germination and a degree of erosion / scour protection.
- For agricultural (grazing) final land use areas (all other areas) scarification using a suitable tynd implement (towed by an agricultural tractor) will be undertaken. The depth of scarification will be 200-300mm to allow some blending of topsoil with underlying materials and minimise the bringing of rock to the surface.
- All ripping and scarification will be undertaken parallel with the contour.

Timing of Growth Medium Preparation

In the NSW Central West, seasonal conditions are variable from year to year, however generally consistent features of the Nyngan semi-arid environment are:

- a cool winter, where soil moisture is generally present through periodic rainfall and greatly reduced evaporation; and
- hot summers with periodic (mostly storm-based) rainfall and very high evaporation which rapidly dries the soil profile.

Based on these climatic features, which are variable with seasonal conditions, optimal seeding and tubestock planting times for the area are:

- Seeding / topsoil preparation (for seedbank germination): April – November
- Tubestock Planting: April - September

In consideration of the above, the planning and execution of revegetation works will need to be flexible and adaptive to capitalise on favourable conditions and also be prepared to delay or defer planned works if conditions are unsuitable.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 124 of 151

Constellation Copper Mine: Rehabilitation Management Plan



6.2.5 Ecosystem and Land Use Establishment

The ecosystem and Land Use Establishment phase includes the placement of salvaged habitat resources where stipulated and the establishment of vegetation consistent with the final land use

Habitat Structure Placement

Habitat structures salvaged during the clearing for the development of the site will be placed within the final land use areas of Native Ecosystem. No habitat structures will be placed within areas with a final land use of Agriculture, Water Management, Infrastructure or Final Void.

Following the placement of topsoil (as described in the above section) and prior to spreading ameliorants, habitat structures will be placed on the WRE and MWS. The objective of placement of habitat features is to create a more heterogenous environment with varying amounts/size of habitat.

- Stags may be re-stood on the WRE or MWS in areas where there is no risk of interaction / damage to the capping material.
- Salvaged timber will be placed as individual and/or piles of logs.
- Suitable large rocks may be placed as small piles/ groups of rocks.
- TRL will attempt to provide a reasonably even coverage across these landforms, however higher concentrations of resources may be placed near surface drains and energy dissipation ponds etc where fauna may gain access to areas of increased moisture retention.

Photographic evidence will be developed and retained of the type, location and placement of habitat resources.

Final Land Use Domain - Agriculture Grazing

The objective for this domain is to reinstate the dominant pre-mining land use of the Mine Site that is the grazing of native / introduced (mixed) pastures (Land Suitability Class (LSC) 6).

The final land use domain of 'Agriculture – Grazing' applies to the following mining domains:

- Infrastructure; and
- Other (Soil stockpiles and Oxidised Waste).

Following the completion of all required prior phases, the following method is proposed to establish this final land use.

It is envisaged that sufficient residual seed will be contained with topsoil stockpiles to allow revegetation, as such seeding of applicable areas or use of tubestock are not proposed. Notwithstanding, as the landforms will be consistent with surrounding agricultural areas, re-seeding using standard agricultural equipment may be undertaken.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 125 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Target Vegetation Community

The target vegetation community for this final land use aligns with the pre-mining land use for the majority of the Mine Site, which is described as a grassland consisting of a mixed sward of predominantly native grasses and groundcover species, mixed to varying extents with introduced grasses and broadleaf weeds (identified by Ecoplanning (2025) as PCT 103 (Derived Native Grassland).

Interim revegetation species lists are contained in **Table 23** (based on Ecoplanning 2024) and will be further refined during operational phases and updated in this RMP as required. The interim revegetation species lists (**Table 23**) should be considered indicative in nature with the success of rehabilitation (and achievement of proposed completion criteria) determined by aligning (structurally and floristically) with locally representative analogue / reference sites with the same final land use and not against formal PCT 103 descriptions.

Notwithstanding the above, Areas of the Mine Site have also recently been used for cropping. Consequently, certain areas of the Mine Site may be managed collectively as part of the wider post-mining farm plan where suitable.

Table 23 Interim Species List - Agriculture (grazing) and Native Ecosystem (grassland)

Agriculture (grazing) and Native Ecosystem (grassland) interim revegetation species list			
Ground Cover Species		Ground Cover Species	
Species	Common Name	Species	Common Name
<i>Abutilon</i> sp	Lantern bush	<i>Glycine canescens</i>	Silky glycine
<i>Anthosachne scabra</i>	Common wheatgrass	<i>Goodenia cycloptera</i>	Cut-leaf goodenia
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Speargrass	<i>Harmsiodoxa blennodioides</i>	Hairy-pod cress
<i>Aristida</i> sp.	Wiregrass	<i>Leontodon rhagadioloides</i>	Cretan weed
<i>Bulbine semibarbata</i>	Native leek	<i>Plantago</i> sp.	Plantain
<i>Calotis cuneata</i>	Mountain burr-daisy	<i>Rhodanthe floribunda</i>	Common white sunray
<i>Calotis cuneifolia</i>	Purple Burr-daisy	<i>Sclerolaena birchii</i>	Galvanized burr
<i>Calotis hispidula</i>	Bogan flea	<i>Sclerolaena convexula</i>	Tall copperburr
<i>Calotis lappulacea</i>	Yellow burr-daisy	<i>Sclerolaena cuneata</i>	
<i>Crassula</i> sp	Stonecrop	<i>Sclerolaena muricata</i> var. <i>villosa</i>	Black rolypoly
<i>Daucus glochidiatus</i>	Native carrot	<i>Sida corrugata</i>	Corrugated Sida
<i>Dysphania</i> sp.		<i>Sida cunninghamii</i>	Ridge Sida
<i>Erodium crinitum</i>	Blue storksbill	<i>Stuartina muelleri</i>	Spoon Cudweed

Constellation Copper Mine: Rehabilitation Management Plan



Agriculture (grazing) and Native Ecosystem (grassland) interim revegetation species list			
Ground Cover Species		Ground Cover Species	
Species	Common Name	Species	Common Name
<i>Enneapogon sp</i>	Nine awn grass / bottle washers	<i>Thyridolepis mitchelliana</i>	Mulga Mitchell's grass
<i>Enteropogon acicularis</i>	Curly windmill grass	<i>Triptilodiscus pygmaeus</i>	Common sunray
<i>Euphorbia drummondii</i>	Caustic weed	<i>Vittadinia spp</i>	
<i>Eragrostis lacunaria</i>	Purple lovegrass	<i>Wahlenbergia sp</i>	Bluebell
<i>Eragrostis parviflora</i>	Weeping lovegrass	<i>Xerochrysum bracteatum</i>	Golden everlasting

Final Land Use Domain - Native Ecosystem

The objective for this domain is to establish a similar woodland community that exists in the pre-mining landscape, predominantly located on small hills and outcrops in the within and in the immediate vicinity of the Mine Site (LSC Class 7). The Native Ecosystem post mining land use applies to the WRE and MWS mining domains.

Following the completion of all required prior phases, the following method is proposed to establish this final land use.

As most of the topsoil will be sourced from pre-mining grassland / pasture areas, minimal suitable woodland seed will be contained within the topsoil. Aeris will implement and maintain a seed securement program to allow the seeding of this landform.

Seed will be stored consistent with the Florabank Guidelines (Greening Australia) (i.e. in a humidity controlled and vermin free environment) until it is required for use. Seed germination / viability tests will be undertaken when collected and again prior to sowing (where seed has been stored for more than 4 years) to assist in determining appropriate sowing rates. Seed will be treated as required to break seed dormancy as per industry guidelines. If required, addition seed may be purchased from commercial seed suppliers, ensuring as much as possible that seed is obtained from local provenance seed sources. Seed predation by ants is common and it may be necessary to include pesticides with the seed application or undertake treatment of seed.

Native seed, including cover crop species may be spread using agricultural equipment such as a seed spinner / spreader (attachment to a standard agricultural tractor) or by aerial means (such as a helicopter or drone). Tubestock are not proposed to be used, unless required during the Ecosystem and Land Use Development phase to supplement particular species or structural types.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 127 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Post seeding, both the WRE and MWS will be fenced to exclude domestic livestock and pest species such as goats from accessing the area and damaging establishing vegetation as far as practicable. Long term grazing will not be permitted.

Target Vegetation Community

The target vegetation community for this final land use aligns with hills and outcrop areas that surround the proposed mine site, consisting of woodland canopy, mid-storey and understorey species. The NSW Government (2024) identified these hills as containing PCT 180³ and PCT 176⁴. Species list (for these two PCT's) sourced from The NSW Office of Environment and Heritage (OEH) (2023) BioNet Vegetation Classification database (OEH (2023)) are presented below in Table 24.

The following target vegetation lists would be supplemented by the use of cover crop species where required to enable the rapid stabilisation of soils and create microclimates for the establishment of native vegetation.

The interim revegetation species lists (**Table 24**) should be considered indicative in nature with the success of rehabilitation (and achievement of proposed completion criteria) determined by aligning (structurally and floristically) with locally representative analogue / reference sites with the same final land use and not against formal PCT 180 / 176 descriptions. As such, revegetation species will be further refined during operational phases of the Project.

Table 24 Interim Native Ecosystem (Woodland) Species List

Native Ecosystem (Woodland) interim revegetation species list			
Species	Common Name	Species	Common Name
Upper Storey Species			
<i>Acacia doratoxylon</i>	Currawang	<i>Eucalyptus morrisii</i>	Grey Mallee
<i>Brachychiton populneus</i> subsp. <i>Populneus</i>	Kurrajong	<i>Eucalyptus populnea</i> subsp. <i>Bimbil</i>	Bimble Box
<i>Callitris glaucophylla</i>	White Cypress Pine	<i>Eucalyptus sideroxylon</i>	Mugga Ironbark
<i>Eucalyptus dwyeri</i>	Dwyer's Red Gum	<i>Eucalyptus viridis</i>	Green Mallee
<i>Eucalyptus intertexta</i>	Gum Coolibah		
Mid Storey Species			
<i>Acacia amblygona</i>	Fan wattle	<i>Eremophila longifolia</i>	Berrigan
<i>Acacia aneura</i>	Mulga	<i>Eremophila mitchellii</i>	False Sandalwood

³ PCT 180 Grey Mallee – White Cypress Pine Woodland on rocky hills of the eastern Cobar Penepains Bioregion.

⁴ PCT 176 Green Mallee – White Cypress Pine very tall mallee woodland.

Constellation Copper Mine: Rehabilitation Management Plan



Native Ecosystem (Woodland) interim revegetation species list			
Species	Common Name	Species	Common Name
<i>Acacia burrowii</i>	Burrow's wattle	<i>Eremophila serrulata</i>	Green Fuchsia-bush
<i>Acacia deanei</i> subsp. <i>deanei</i>	Dean's wattle	<i>Eremophila sturtii</i>	Narrow-leaf Emu-bush
<i>Acacia decora</i>	Western silver wattle	<i>Geijera parviflora</i>	Wilga
<i>Acacia hakeoides</i>	Hakea wattle	<i>Indigofera australis</i>	Australian indigo
<i>Alstonia constricta</i>	Bitter Bark	<i>Maireana microphylla</i>	Small-leaf Bluebush
<i>Apophyllum anomalum</i>	Warrior Bush	<i>Micromyrtus ciliata</i>	Fringed Heath-myrtle
<i>Beyeria viscosa</i>	Pinkwood	<i>Myoporum montanum</i>	Western Boobialla
<i>Calytrix tetragona</i>	Common fringe-myrtle	<i>Ozothamnus obcordatus</i> subsp. <i>obcordatus</i>	Grey Everlasting
<i>Cassinia sifton</i>	Sifton bush	<i>Pandorea pandorana</i> subsp. <i>pandorana</i>	Wonga wonga vine
<i>Cassinia laevis</i>	Cough Bush	<i>Parsonsia eucalyptophylla</i>	Gargaloo
<i>Dodonaea boroniifolia</i>	Fern-leaf Hop-bush	<i>Philotheca difformis</i> subsp. <i>difformis</i>	Small-Leaf wax flower
<i>Dodonaea lobulata</i> ;	Lobed-leaved hop-bush	<i>Prostanthera ringens</i>	Gaping Mint-bush
<i>Dodonaea viscosa</i> subsp. <i>angustifolia</i>	Sticky Hop-bush	<i>Prostanthera striatiflora</i>	Jockey's Cap
<i>Eremophila latrobei</i> subsp. <i>latrobei</i>	Crimson Turkey-bush	<i>Sida filiformis</i>	Fine sida
Ground Cover Species			
<i>Amphipogon caricinus</i> var. <i>caricinus</i>	Long Greybeard Grass	<i>Eriachne mucronata</i>	Mountain Wanderie Grass
<i>Aristida jerichoensis</i> var. <i>subspinulifera</i>	Jericho Wiregrass	<i>Goodenia glabra</i>	Smooth goodenia
<i>Atriplex stipitate</i>	Mallee Saltbush	<i>Lomandra patens</i>	Irongrass
<i>Austrostipa densiflora</i>	Foxtail Spear-grass	<i>Melichrus erubescens</i>	Ruby Urn Heath
<i>Austrostipa scabra</i> subsp. <i>scabra</i>	Speargrass	<i>Maireana humillima</i>	Dwarf Bluebush
<i>Brunonia australis</i>	Blue Pincushion	<i>Platysace lanceolata</i>	Shrubby Platysace

Constellation Copper Mine: Rehabilitation Management Plan



Native Ecosystem (Woodland) interim revegetation species list			
Species	Common Name	Species	Common Name
<i>Calotis cuneifolia</i>	Purple Burr-daisy	<i>Rytidosperma setacea</i>	Smallflower Wallaby Grass
<i>Calotis lappulacea</i>	Yellow Burr-daisy	<i>Rytidosperma tenuior</i>	Purplish Wallaby-grass
<i>Cheilanthes austrotenuifolia</i>	Rock Fern	<i>Sclerolaena birchii</i>	Galvanized Burr
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>	Narrow Rock-fern	<i>Sclerolaena convexula</i>	Tall Copperburer
<i>Dianella longifolia</i> var. <i>longifolia</i>	Blue Flax-Lily	<i>Thyridolepis mitchelliana</i>	Mulga Mitchell Grass
<i>Dianella revoluta</i> var. <i>revoluta</i>	Blue Flax-Lily	<i>Themeda australis</i>	Kangaroo Grass
<i>Digitaria brownii</i>	Cotton Panic Grass	<i>Walwhalleya subxerophila</i>	Gilgai Grass
<i>Einadia nutans</i> subsp. <i>Nutans</i>	Climbing Saltbush	<i>Xerochrysum bracteatum</i>	Golden Everlasting
<i>Enteropogon acicularis</i>	Curly Windmill Grass		

Management of Emergent Vegetation

Management measures to be implemented for protection of emergent and/or juvenile vegetation may include:

- exclusion of vehicles and stock from revegetation area;
- increased monitoring frequency to identify effectiveness of revegetation methodologies and for early identification of potential risks; and
- increased frequency of weed and pest monitoring and controls prior to, during, and following vegetation establishment to ensure pest pressure is kept to a minimum while vegetation is more at-risk.

Weed Management

During the Ecosystem and Land use Establishment Phase, weeds have the ability to impact the establishment and persistence of desirable 'final land use' species. As such weed management will be a critical component of initial rehabilitation activities. Weeds will be managed through a series of control measures, including:

- Herbicide spraying of weeds on soil stockpiles during the active mining phase (to actively reduce weed seed burden on stockpiles).

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 130 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Identifying and spraying existing weed populations together with ongoing weed spraying over the life of the project (to actively and progressively reduce overall weed populations and seeding potential).
- Soil stockpiles are assessed for weed and weed seed / propagule burden. If required, the outer layer of soil stockpiles may be 'scalped' to prevent any surface weeds or weed seeds being transferred to revegetation areas.
- If machinery to be used for rehabilitation is brought to the site from another site, and if there is a risk of weed seeds having been transported on the machinery, it will be hosed down in an approved wash down area before entry to the project area.
- Rehabilitation inspections to identify potential weed infestations.
- Weed control programs will be implemented according to industry best management practice for the weed species present, if required.

Undertaking weed control during the Ecosystem and Land Use Establishment Phase may result in non-target damage or impacting the establishment of target final land use species. This may be due to the vulnerability of newly establishing plants and / or access for weed control (i.e. vehicle driving across establishing vegetation). For this reason, weed control during this phase may be deferred until there is suitable groundcover and or species are suitably established to withstand these impacts. The exception to this is where serious weed species or weed incursions are observed through monitoring, under these circumstances, weed control will be undertaken using methods to minimise any potential impact to desirable species.

6.2.6 Ecosystem and Land Use Development

The Ecosystem and Land Use Development phase is the 'successional growth phase' of newly established vegetation. During this phase, vegetation becomes further established and improves in structure and complexity.

Key management and maintenance works required during this phase aim to ensure that the growth and development of vegetation is on a trajectory towards achieving the final land use and agreed completion criteria. Inspections and formal rehabilitation monitoring (Section 8) will further inform required works during this phase. Intervention and adaptive management are discussed further in Section 10.

Weed and Pest Control

During this phase, weed and pest control will be undertaken as per the approved Biodiversity Management Plan and include:

- Regular inspections;
- Annual weed and pest control programs;
- Ad-hoc weed and pest control programs; and

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 131 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Monitoring the success of management measures.

Erosion Control Works

Frequent inspections (Section 8) of newly established landforms and establishing vegetation will be used as the primary tool for identifying erosion areas that may require repair. Following the identification of erosion, works will be scheduled for the repair and revegetation of the eroded area; works may include:

- Investigations into the basic and / or root causes of the erosion;
- Correction / maintenance of any failed drainage control structures (including the addressing of basic / root causes as required);
- Installation of new drainage control structures if required;
- Repair of eroded areas, including re-shaping, rock armouring, use of jute fabrics etc;
- Revegetation (e.g. Seeding, hydromulching, tubestock etc); and
- Ongoing monitoring and repair as required.

Maintenance of Soil Fertility

Formal rehabilitation monitoring (Section 8) will include the taking of soil samples for analysis. Soils will be analysed as described in Section 6.2.4. Any material soil limitations to ongoing vegetation succession identified will be rectified through the application of ameliorants such as gypsum, lime, fertiliser (Phosphorous, Nitrogen), trace elements etc.

Water Management Areas (incl. water monitoring)

Water Management Areas retained in the post closure landscape (including the MIA Runoff Dam, Waste Dump Catch Dam, Process Water Dam and post closure drains) will be regularly inspected and maintained as required. Maintenance may include de-silting to ensure adequate storage capacity and to provide adequate water for livestock.

Water quality monitoring will be undertaken as stated in the Constellation Project Water Management Plan (TRL-HSET-PLN-0047) during this phase to demonstrate the meeting of specified completion criteria, where relevant (Section 4).

Re-seeding / planting

Frequent inspections and formal rehabilitation monitoring (Section 8) will be used to identify areas of failed revegetation, or areas where active management may be required to achieve the final land use, including completion criteria.

Where identified, works will be scheduled and implemented and may include:

- Investigation to identify the basic and / or root cause of vegetation failure;

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 132 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Plan and implement corrective measures to address the basic / root cause(s) of failure;
- Undertake re-seeding, planting (or the supplementary planting of certain species to achieve the final land use) as required; and / or
- Ongoing monitoring and corrective measures as required.

Fence / track and trail maintenance

Regular inspections of fences and retained tracks will be undertaken to identify any required maintenance or repairs. Repairs and maintenance will be undertaken as identified.

6.3 Rehabilitation of Areas Affected by Subsidence

Not Applicable. No mine subsidence is predicted at the Constellation Project.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 133 of 151

Constellation Copper Mine: Rehabilitation Management Plan



7 Rehabilitation Quality Assurance Process

The following section details the rehabilitation quality assurance process for the Mine in accordance with *Guideline 3: Rehabilitation Controls (July 2021)*. The rehabilitation quality assurance checklist included in this section is intended to be used as an indicative guide for rehabilitation operation managers and practitioners responsible for the rehabilitation of the Mine Site.

It is anticipated that rehabilitation operations within the Mine Site will occur on a progressive basis as areas are no longer require for operational purposes. Consequently, it is noted that rehabilitation progress through the planned rehabilitation phases will not occur concurrently across all mining subdomains.

In addition to the above, the Company has prepared a detailed Rehabilitation Quality Assurance and Quality Control Template to be applied to relatively higher-risk landforms/domains within the Mine Site. The Rehabilitation Quality Assurance and Quality Control Template identifies the key actions and/or processes required for rehabilitation and includes a responsibility assignment matrix in the form of a standard RACI (Responsible, Accountable, Consulted, Informed) model to delineate the key roles for each action/process. A copy of the Rehabilitation Quality Assurance and Quality Control Template is presented as **Appendix 1**.

As part of the rehabilitation quality assurance process, relevant records and documentation will be recorded in a Rehabilitation Quality Assurance Register and reported as part of the Annual Rehabilitation Report. The Rehabilitation Quality Assurance Register will, as a minimum, include a copy of the checklists presented in **Appendix 1** as well as a compliance register used to assess the status of compliance with requirements under relevant development consents, leases and licences. The Rehabilitation Quality Assurance Register will be maintained, reviewed and refined by the Environment Superintendent to ensure that it is reflective of current rehabilitation progress, risk controls implemented at the Mine Site and the outcomes of any updated rehabilitation risk assessments.

Table 25 summarises the key responsibilities outlined in **Appendix 1** for the Company and Mine personnel with regards to rehabilitation operations.

Table 25 Key Roles and Responsibilities

Role	Responsibility
Mine Operator	• Comply with applicable laws, regulations, licences and approvals. • Ensure all contractors, sub-contractors and service personnel are appropriately qualified and/or licenced to undertake the required work. • Ensure that appropriate resources are available to site management and personnel to enable the implementation of this Plan.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 134 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Role	Responsibility
Environmental Superintendent / Site Supervisor	• Ensure that the Rehabilitation Quality Assurance register is maintained and up to date based on site activities. • Ensure that relevant personnel and workforce participants are aware of relevant development and rehabilitation risks and management and mitigation measures, including any additional corrective and/or preventative measures. • Ensure that the rehabilitation quality assurance process outlined in Section 7 is implemented as required. • Ensure that the documentation and recording of rehabilitation risk controls occurs within a suitable timeframe as reasonably practicable. • Ensure that specialist contractors adhere to the guidelines and methodologies outlined in this RMP where required, or that the guidelines and methodologies in this Plan are updated to reflect those employed at the Mine Site.
All Mine Personnel	• Follow direction provided by the Environmental Superintendent / Site Supervisor. • Notify the relevant supervisor in the event that uncontrolled rehabilitation risks are identified.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 135 of 151

8 Rehabilitation Monitoring Program

The rehabilitation monitoring program for the Mine Site has been developed to monitor the progress of rehabilitation toward meeting the requirements for the final land use by comparing rehabilitated landforms and areas within the Mine Site to unmined areas of remnant vegetation, or analogue sites. Rehabilitation monitoring will focus upon determining whether progress towards achieving the relevant performance indicators and completion criteria presented in **Table 12** are being achieved. **Table 12** also presents the proposed rehabilitation monitoring methodology and frequency for each indicator and criteria identified.

8.1 Analogue Site Baseline Monitoring

The selection of suitable analogue sites will be undertaken by an engaged ecologist at the time of commencing rehabilitation monitoring. Analogue sites will be established for agriculture production and biodiversity based on the dominant final land uses for the Mine Site.

Analogue sites will be established within agricultural land within or in the vicinity of the Mine site. Production data from surrounding farmland that is owned or controlled by the Company may also be used to derive baseline/trends as relevant.

Analogue sites will be placed in the rocky hills that are located to the northeast and/or southwest of the Mine Site. These woodland areas consist of native tree, shrub and understorey species and are grazed on an infrequent basis.

Rehabilitated areas will be assessed against performance indicators on an annual, biannual or other frequency basis depending on the performance of rehabilitation works; and continue for five years following the cessation of mining, or earlier if completion criteria have been achieved.

8.2 Rehabilitation Establishment Monitoring

8.2.1 Inspection Regime

The inspection regime for rehabilitation establishment monitoring will consist of the following.

- Regular visual inspections on at least a quarterly basis of general landform, vegetation cover, and infrastructure components as part of ongoing site monitoring and maintenance. These inspections are intended for identification of significant actual or potential risks relating to operations, including rehabilitation.
- Results from regular site monitoring inspections will be used to identify and action key management and maintenance activities, including the potential for increased monitoring frequency and/or scope. Information collected during these events will likely be reported as per standard site reporting and may include photographs, where relevant.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 136 of 151

Constellation Copper Mine: Rehabilitation Management Plan



- Campaigned based, targeted inspections for key rehabilitation activities such as:
 - landform and growth medium establishment of minor landforms with relatively lower risks (e.g. general shaping); and
 - vegetation establishment during low-risk periods (e.g. during relatively expected climate conditions), or during/following high-risk events such as bush fire, drought, high rainfall, etc.
- Results of targeted inspections will be used to assess condition and performance of rehabilitated areas and, where relevant, to identify potential or actual incidence/risk of rehabilitation failure and associated remedial actions if required. Information collected during these events will be presented in follow up reports and may include photographs, where relevant.
- Regular monitoring for pest and weed species presence/abundance.

Rehabilitation establishment monitoring methods for areas to be revegetated will generally be consistent with existing monitoring methods for the other TCO mining operations, namely the establishment of permanent monitoring quadrats located within the remaining areas to be rehabilitated.

The location and density of any additional permanent monitoring quadrats will be determined by or under the guidance of a suitably qualified person(s). It is anticipated that the establishment of permanent monitoring locations within each area to be rehabilitated will occur within 1 year of the completion of ecosystem establishment activities.

Prior to the initial formal survey, establishment monitoring will consist of the following.

- Photo monitoring of rehabilitated areas, including photos prior to seeding, immediately following seeding and at least quarterly until first formal survey is undertaken. Additional photo monitoring may be undertaken on an opportunistic basis or as directed by rehabilitation experts.
- Visual inspections, including photographs, following significant rainfall events to identify any signs of erosion and detail any follow up actions required (e.g. repairs, installation of additional erosion and sediment controls).
- Recording of all monitoring and inspection events, including the results of monitoring and any follow up activities, in accordance with the Rehabilitation Quality Assurance Register.

As indicated in **Table 12**, ecological monitoring frequency will be determined in consultation with a suitably qualified person(s) (i.e. an ecologist/rehabilitation specialist). The Company anticipates that monitoring frequency will largely reflect rehabilitation age, and monitoring frequency is likely to vary across the Mine Site depending on observed rehabilitation progress.

The results of any rehabilitation establishment monitoring will be detailed in the respective *Annual Rehabilitation Report* together with a record of any specific management actions (i.e. reviews) that have been undertaken. Any corrective actions identified as being required to be undertaken will be included as part of the *Forward Program*, as required.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 137 of 151

Constellation Copper Mine: Rehabilitation Management Plan



8.2.2 Overview of Ecosystem Establishment Monitoring Methodology

Rehabilitation monitoring will be undertaken using analogue sites and Landscape Function Analysis (LFA). The rehabilitation approach will continue to evolve over the life of the CCM, informed by the outcomes of ongoing monitoring and the refinement of rehabilitation targets. As a result, monitoring methodologies may be adjusted over time to align with updated completion criteria.

Data collected from analogue sites will establish benchmark ranges based on comparable vegetation communities consistent with the intended final land uses. Rehabilitation areas will be assessed against reference sites that represent similar vegetation types, land use objectives, and management conditions.

This approach recognises that ecosystems are dynamic, with both rehabilitation and reference sites monitored concurrently to account for variations in seasonal conditions, climate, management practices, and unforeseen disturbances such as bushfire. Rehabilitation success, or progression towards it, will be demonstrated where key indicators match, exceed, or fall within the acceptable range of values observed at reference sites under comparable conditions, or show a clear positive trend towards these targets.

The results of the monitoring program are presented in a Rehabilitation Monitoring Report and will be summarised in the Annual Rehabilitation Reports going forward.

8.3 Measuring Performance Against Rehabilitation Objectives and Rehabilitation Completion Criteria

Details of validation methods and indicators to be employed during monitoring in order to assess performance against the rehabilitation completion criteria for the Mine Site are provided in Section 4.1.

The Rehabilitation Quality Assurance Register will be used to record details of any additional management measures or risk controls implemented during the ecosystem development phase in response to the analysis of rehabilitation monitoring results.

An Annual Rehabilitation Report and Forward Program will be prepared for the Mine as required under the *Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) Regulation 2021*. As part of the Annual Rehabilitation Report and Forward Program, the Company will validate and certify that the security deposit covers the estimated cost of rehabilitation liabilities each year.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 138 of 151

Constellation Copper Mine: Rehabilitation Management Plan



9 Rehabilitation Research and Trials

9.1 Current Rehabilitation Research, Modelling and Trials

No active rehabilitation research, modelling, or trials are currently being undertaken at the Constellation Mine Site.

It should be noted that the older mining operations within the Tritton Copper Operations are largely analogous with regards to rehabilitation for the Mine. Mining operations are effectively the same for each mine, with similar geology, geochemistry, mining techniques, and final land uses. Progressive rehabilitation has occurred sporadically for over 30 years at the Murrawombie and North East Copper Mine sites. Initially with the cessation of open cut mining operations and the decommissioning of surface infrastructure, as well as progressively with the waste rock emplacements in parallel with underground mining operations. More recently, the Company has commenced closure of the Heap Leach Facility located at the Murrawombie Copper Mine Site, which involved a significant campaign of NAF material emplacement as part of the final capping for the construction of what is referred to as the Rock Storage Facility. Further information is available in the RMP for the Murrawombie Copper Mine.

Construction of the Rock Storage Facility required the development of specific testing and validation programs to ensure that the landform was constructed to specification and that the geochemically adverse material was effectively encapsulated. While none of the constructed landforms that will feature as part of the post-mining landscape of the Mine Site are as high of a risk as the Heap Leach Facility, capping of the encapsulated PAF material within the WRE, as well as the stockpiled mineralised waste within the MWS will be required to ensure risks remain low. Hence, the Company intends to develop similar systems for the Mine based on key lessons learned from closure of the Heap Leach Facility.

The Company acknowledges there have been several long-term issues relating to the rehabilitation of the various mines within the Tritton Copper Operations, primarily relating to landform stability, geochemistry, and vegetation establishment. The Company is in the process of developing targeted action plans to address these matters. Similar to the above, the Company will ensure that the key drivers of rehabilitation failures are identified where possible, and that these are considered for all rehabilitation activities that will be undertaken for the Mine Site where relevant.

9.2 Future Rehabilitation Research, Modelling and Trials

9.2.1 Landform Evolution Modelling

Objective

Improve understanding of long-term landform stability and erosion to identify key risks and opportunities for rehabilitation.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 139 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Overview

The Company will engage a suitable qualified person(s) to undertake landform evolution modelling (LEM) on the key final landform elements of the Mine Site (WRE and MWS) to ensure that all final constructed landforms are sufficiently resilient to erosion. LEM will be conducted across all three sites to inform final design and construction of the final landforms.

LEM will indicatively involve the following.

- A screening program to describe the capping materials and identify the materials that require detailed erodibility testing and modelling.
- Testing of bulk samples of soil and other materials selected to derive parameters for erosion modelling.
- Modelling to determine the relationship between erodibility testing, laboratory soil analysis, long term climate data and landform topographical parameters to inform details design of the landform.

Specific methodology and parameters will be defined upon engagement of a specialist consultant.

The LEM will be undertaken prior to commencement of the construction of the 2nd lifts for each facility. The results of the LEM will be used to confirm/revise the final designs for each landform.

This Plan will be revised following completion of the modelling. The Company intends to also review and revise the Rehabilitation Risk Assessment if required. Should a significant variation to the final landform(s) be required, consultation with all relevant stakeholders / authorities would be undertaken, which may include modification of SSD 4159871.

Final surface water designs for the WRE and MWS will also be prepared prior to the commencement of construction of the 2nd lifts for each facility. The objective of the program will be to ensure the berms, drains, and drop structures (if required) are appropriately sized, located, and constructed. The Company anticipates that this would be prepared in consideration of the results of the Landform Evolution Modelling

9.2.2 Land Contamination and Hazard Assessment

Objectives

Ensure land contamination and hazardous materials do not impact on final land use.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 140 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Overview

Contamination and hazardous materials assessments are identified as a key risk control within the rehabilitation risk assessment for the Mine Site. It is anticipated that the Land Contamination and Hazard Assessment will include a detailed risk assessment to:

- identify known potential and actual occurrences of all contaminated land and hazardous materials within the Mine Site; and
- determine the scope of targeted testing programs to confirm/identify the occurrence of potential and/or unknown incidences of contamination/hazardous materials.

Depending on the outcomes of the Land Contamination and Hazard Assessment, a specific management plan may be required to manage risks associated with contaminated materials during mine closure.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 141 of 151

Constellation Copper Mine: Rehabilitation Management Plan



10 Intervention and Adaptive Management

10.1 Threats to Rehabilitation

Section 3 of this document presents an assessment of environmental risks associated with the Mine. Similarly, this subsection presents an analysis of the specific risks or threats to rehabilitation within the Mine Site. This analysis of threats to rehabilitation has been prepared broadly in accordance with the requirements of *Australian Standard AS/NZS ISO 31000:2009 Risk Management*.

In summary, threats to rehabilitation were identified based on the performance indicators and relinquishment criteria identified in **Table 12**. For each threat, potential adverse outcomes were identified and allocated a risk based on the potential consequences and likelihood of occurrence. Risks were determined based on implementation of industry standard mitigation measures and the Company's rehabilitation commitments (summarised in Section 4 and **Table 12**). Where risks were determined to be unacceptable, namely those risks classified as "moderate" or above, a Trigger Action Response Plan has been developed and is presented in Section 10.2.

10.2 Trigger Action Response Plan

Table 26 presents the Trigger Action Response Plan for each of the rehabilitation threats and potential adverse outcomes identified in **Table 10** as having a risk rating of moderate or above.

Table 26 Trigger Action Response Plan

Rehabilitation Risk	Potential Adverse Outcome	Trigger	Response
General			
Insufficient skills and experience of rehabilitation personnel.	Unable to complete rehabilitation - achieve rehabilitation objectives/mine closure criteria.	Unacceptable delay in rehabilitation schedule. Quality Assurance Program identified that work has not been completed to a satisfactory level.	Engagement of suitably qualified specialists. Training programs for internal staff.
Lack of clearly defined responsibilities.	Unable to complete/delays in completing rehabilitation - unable to achieve rehabilitation objectives/mine closure criteria.	Unacceptable delay in rehabilitation schedule. Quality Assurance Program identified that work has not been completed to a satisfactory level.	Reimplementation of Organisation Chart. Senior Management provide signoff.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 142 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Rehabilitation Risk	Potential Adverse Outcome	Trigger	Response
Active Mining Phase of Rehabilitation			
Adverse geochemical/chemical composition of materials such as overburden, tailings, heap leach, subsoils and topsoils etc	Chemical composition impacts the ability to achieve rehabilitation objectives / mine closure criteria.	Waste characterisation/geochemical assessment identifies adverse geochemical/chemical composition of materials.	Engagement of suitably qualified engineer to recommend appropriate mitigation measures.
Handling and containment of waste materials including Tailings, waste rock, heap leach, waste/contaminated water.		Observed improper handling of waste materials. Failure or leakage of waste containment structures. Reported contamination spills.	Engagement of suitably qualified engineer to recommend appropriate mitigation measures.
Insufficient availability of material required for capping of final landforms.	Final landform unsuitable for final land use.	Material balance identifies potential or actual deficit of suitable NAF material.	Suspension of production of road base material. Review and refine material handling practices to maximise recovery of NAF material. Consider alternative sources of capping material within the Tritton Copper Operations.
Decommissioning Phase of Rehabilitation			
Surface water management infrastructure required to support final land use is not fit for purpose.	Increased risk of/from erosion and sedimentation. Increased maintenance requirements.	Decommissioning/engineering survey identifies poor/unsuitable condition/performance of water management infrastructure to be retained.	Engagement of suitably qualified person(s) to identify remedial actions.
	Contamination of land/water impacts final land use/surrounding land use.	Post-Closure Water Management Strategy identifies significant redesign of existing infrastructure, including additional infrastructure, is required.	Engagement of suitably qualified person(s) to recommend appropriate changes to water management infrastructure.
			Confirm permissibility of required changes, and identify any potential impacts to water licencing requirements.

Constellation Copper Mine: Rehabilitation Management Plan



Rehabilitation Risk	Potential Adverse Outcome	Trigger	Response
Adverse geochemical/chemical composition of materials such as overburden, tailings, heap leach, subsoils and topsoils etc	Insufficient material growth medium available for rehabilitation.	Contamination assessments undertaken during decommissioning phase identify potential or actual contamination of stockpiled rehabilitation resources.	Engagement of suitably qualified person(s) to identify scale of contamination and identify remedial actions, if required. Review materials balance to identify potential impacts to overall available resources. If required, undertake remediation of contaminated material, or investigate alternative material sources.
Unauthorised access to open pit/voids, underground workings, infrastructure areas and general mining landforms.	Public access to final Open Pit Void possible.	Regular inspections of fencing or safety bunds identifies potential for public access to voids or access by unauthorised persons is identified. Reports of unauthorised access to Mine Site.	Undertake repairs to security fencing and, if necessary, install additional security measures to prevent and/or discourage public access.
Landform Establishment Phase of Rehabilitation			
Geotechnical instability of Final Open Pit voids.	Failure of pit walls. Failure to achieve safe and stable landforms.	Geotechnical assessment identifies instability of pit walls.	Engagement of suitably qualified engineer to recommend appropriate mitigation measures.
Capping requirements for construction of the final landform are significantly greater than expected.	Insufficient material available for capping of final landform. Exposure of adverse geochemical material.	Contamination/geochemical characterisation assessments during decommissioning of NAF Waste Rock Emplacement, ROM Pad, and any other mining-related landform identifies occurrence of geochemically adverse material.	Isolate contaminated material and undertake further investigations to quantify contaminated material and identify potential impact. Consider available options for removal, disposal, and or treatment of contaminated material, depending on scope of potential impact. Engage a suitably qualified person(s) to prepare a capping design for the affected landforms. Review material balance to assess potential for occurrence of deficit. If required, review and revise final landform plan to

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 144 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Rehabilitation Risk	Potential Adverse Outcome	Trigger	Response
			account for altered final landform and land use.
Surplus of rehabilitation material resulting in incomplete salvage of material from NAF Waste Rock Emplacement.	Final landform no suitable for final land use.	Materials balance identifies potential or actual surplus of material stockpiled within NAF Waste Rock Emplacement. Significant surplus of material identified following rehabilitation of Mine Site.	Review closure planning to identify potential for relocation of material to other sites within Girilambone Complex. Investigate potential for retention of infrastructure to support continued processing of material for use as road base until material is exhausted and areas are subsequently rehabilitated. If to be retained, engage suitably qualified person(s) to identify final landform design requirements to ensure final landform is safe, stable, and non-polluting. Ensure adequate resources are available for final rehabilitation of retained landform.
Growth Medium Development Phase of Rehabilitation			
Insufficient biological resources available for rehabilitation.	Insufficient/inadequate ground cover established resulting in increased susceptibility to erosion.	Adverse seasonal conditions result in reduced availability and/or viability of propagation material (e.g. damage/poor condition of monitoring sites identified during monitoring events prior to growth medium establishment.	Review and revise rehabilitation schedule to account for potential deficit of materials, such as delay in growth medium establishment until sufficient resources are located and secured.
Insufficient resources available for growth medium development.	Delayed/failed vegetation establishment. Increased susceptibility to erosion. Maintenance requirements of final landform/use is increased.	Visual inspections identify potential or actual damage to stockpiled growth medium resource from inappropriate handling practices (e.g., excessive damage from vehicles).	Temporarily cease stockpile salvage operations and investigate potential causes and remedial actions (e.g., such as additional signage/training) to prevent reoccurrence as far as practicable. Assess scope of damage and review material balance to identify potential impact.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 145 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Rehabilitation Risk	Potential Adverse Outcome	Trigger	Response	
		Unseasonal meteorological events (e.g., increased rainfall, drought, etc) are forecast and/or experienced	Inspect all erosion and sediment control infrastructure prior to, during, and following significant events. Prioritise monitoring and maintenance activities relating to key water management infrastructure. Investigate additional temporary erosion/sediment controls that could be implemented such as mulch.	
		Visual inspections following delayed vegetation establishment identify significant soil loss.	Investigate condition of remaining growth medium and apply additional growth medium, if required. Inspect receiving catchment for impacts from increase erosion. Review material balance to identify impact of soil loss.	
		Soil testing during growth medium phase identifies adverse soil characteristics.	Engage suitably qualified person(s) to recommend potential amelioration activities.	
	Rehabilitation areas require increased maintenance compared to analogue sites.	Visual inspections identify high occurrence of weed species in stockpiled / placed growth medium.	Undertake targeted weed controls and increase monitoring frequency prior to vegetation establishment.	
Ecosystem and Land Use Establishment Phase of Rehabilitation				
Insufficient biological resources available for rehabilitation.	Failure to establish target species at required density / location.	Rehabilitation monitoring records show revegetation has failed to meet target/expected density/diversity/relative abundance. Visual inspections following vegetation establishment identify significant soil loss. Visual inspections and/or rehabilitation monitoring identify partial or total germination failure and/or	Engage suitably qualified person(s) to Investigate potential causes of revegetation failure. Inspect landform/growth medium to assess suitability prior to infill planting, and undertake remedial action if required. Review and revise revegetation methodologies to identify potential changes	
Doc No: AIS-ADM-TMP-0003		Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]		This document is UNCONTROLLED once printed		Page: 146 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Rehabilitation Risk	Potential Adverse Outcome	Trigger	Response
		unexpectedly high loss of individuals.	in approach for remaining revegetation activities. Investigate requirement for additional temporary erosion and sediment control measures and inspect receiving catchment including water management infrastructure. Undertake in-fill planting as soon as practicable.
Damage to establishing vegetation from herbivore activity	Failure to establish target species at required density / location.	Visual monitoring/rehabilitation monitoring identifies significant damage to or loss of plants from herbivore activity.	Review management practices, undertake additional and/or targeted controls until monitoring indicates return to expected levels or until vegetation becomes sufficiently established.
Rehabilitation areas impact suitability of final/surrounding land uses.	Increased weed occurrence due to lack of competition from native species leads to increased maintenance requirements within and surrounding rehabilitation areas.	Visual monitoring / rehabilitation monitoring identifies weed presence/abundance within and/or in the vicinity of rehabilitation areas is significantly higher than analogue sites/long term trends.	Review weed management practices, undertake targeted controls and increase frequency until monitoring indicates return to expected levels.
Ecosystem and Land Use Development Phase of Rehabilitation			
Damage to revegetation from pests, livestock, unauthorised machinery access, bushfire, vandalism etc.	Poor vegetation establishment / persistence resulting in failure to meet rehabilitation objectives / mine closure criteria.	Observed damage to vegetation in revegetated areas. Lack of revegetation establishment within expected timeframes. Bushfire events. Reported incidents of unauthorised machinery access or other incidents resulting in vegetation damage.	Engagement of suitably qualified ecologist or other appropriate persons to assess damages and recommend appropriate mitigation measures. Installation of security structures to prevent unauthorised access.

Constellation Copper Mine: Rehabilitation Management Plan



11 Review, Revision and Implementation

Table 27 presents the triggers for reviewing this Plan. Following each review, this Plan will be revised if significant structural amendments are necessary and provided to the Resources Regulator. Additionally, further consultation with relevant stakeholders will be undertaken where revisions to this Plan result in significant changes to proposed final land uses final landforms, rehabilitation objectives, rehabilitation completion criteria and/or the rehabilitation schedule. Milestones as documented in this Plan will be updated in the Annual Rehabilitation Report and will trigger an update to this Plan in the event that a significant change in rehabilitation risks and/or proposed rehabilitation methodologies is identified.

Table 27 Rehabilitation Management Plan Amendment / Review Triggers

Trigger	Review
Amendment (required under Clause 11 of Schedule 8A of the Mining Regulation 2016)	
Approval of the proposed rehabilitation outcome document by the Secretary.	Within 30 days
Amendment to the rehabilitation outcome document under Clause 14 of Schedule 8A of the Mining Regulation 2016.	Within 30 days
Changes to risk control measures in the Rehabilitation Risk Assessment.	As soon as practicable
Written request from the Secretary.	As required by any notice
Review	
Commencement of the Operational Rehabilitation Reform transition period.	Within 12 months
Modification of an existing development consent.	Within 3 months
Modification of ML1897.	Within 3 months
Submission of each Annual Rehabilitation Report and Forward Program.	Within 1 month
Completion of a rehabilitation trial.	Within 1 month
Modification of any management plans.	Within 3 months
Receipt of a specialist consultant report prepared in response to a trigger outlined in Section 10.	Within 3 months
Consultation with relevant stakeholders with significant implications for the final land use and/or final landform.	Within 3 months
Consultation with relevant stakeholders with significant implications for rehabilitation objectives and/or rehabilitation completion criteria.	Within 3 months

In addition to reviews of this Plan as outlined in **Table 27**, a Rehabilitation Quality Assurance Register will be developed and regularly maintained to ensure that mining and rehabilitation activities at the Mine Site are being conducted in accordance with this Plan. The Rehabilitation Quality Assurance Register

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 148 of 151

Constellation Copper Mine: Rehabilitation Management Plan



will include the checklist presented as **Appendix 3** as well as a compliance register used to assess the status of compliance with requirements under relevant development consents, leases and licences. Further details of the Rehabilitation Quality Assurance Register are available in Section 7.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 149 of 151

Constellation Copper Mine: Rehabilitation Management Plan



12 References

AARC (2023). Land and Soil Capability Assessment (Appendix 17 of the Constellation Project EIS)

AARC (2024). Constellation Project Environmental Impact Statement (July 2024).

AARC (2025). Response to Submissions (13 May 2025).

AARC (2025a). Constellation Project Amendment Report.

Bogan Shire Council (2026). Bogan Shire Council weed guides
<https://bogan.nsw.gov.au/environment/vegetation-noxious-weeds>

Burton Environmental (2024). Constellation Project Rehabilitation and Closure Strategy (Appendix 18 to the Constellation project EIS).

Central West Local Land Services (2022). Central West Regional Strategic Weed Management Plan 2023-2027.

Colquhoun, G.P. Hughes, K.S. Deyssing, L. Ballard, J.C. Phillips G. Troedson, A.L. Folkes C.B. Fitzherbert J.A., 2020, NSW Seamless Geology Version 2.1,
<https://geonetwork.geoscience.nsw.gov.au/geonetwork/srv/eng/catalog.search#/metadata/3dfbc096-ab1f-4b34-92a1-5e347bfaecb8>

Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2013). National Environment Protection Measure (Assessment of Site Contamination) (as amended).

Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2019). NSW Government Translocation Operational Policy 2019.

Department of Primary Industries (2018). New South Wales Weed Control Handbook.

EcoPlanning (2025). Constellation Project Biodiversity Assessment Report (BDAR).

Giambastiani B.M.S and Kelly B.F.J. 2010, Macquarie-Bogan Catchment Groundwater Hydrographs, School of Biological, Earth and Environmental Science, The University of new South Wales, Australia, August 2010.

Greening Australia (various dates). Florabank Guidelines. Website:
<https://www.greeningaustralia.org.au/publications>

Moroney Hydrometallurgy (2023). Constellation – Oxide Leach Pad Construction.

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 150 of 151

Constellation Copper Mine: Rehabilitation Management Plan



Niche Environment and Heritage (2025). Cultural Heritage and Historical Heritage Assessments; prepared for the Constellation Project Amendment Report (AARC 2025).

NSW Resources Regulator (2025). Form and Way: Rehabilitation Management Plan for Large Mines' (as amended).

Office of Environment and Heritage (OEH) (2023) BioNet Vegetation Classification database.

O'Kane Consultants (OKC) (2018). Murrawombie HLF Cover System and Landform Design. Prepared for Aeris Resources.

OzArk Environment & Heritage (2026). Aboriginal Cultural Heritage Salvage Report – Constellation Project (SSD-41579871),

PSM (2024). Constellation Deposit Open Pit and Underground Geotechnical Design and Groundwater Inputs.

RGS (2024). Mine material and soil capping assessment and management and final void water balance and water quality model (Appendix 15 to the Constellation EIS)

Royal Botanic Gardens Sydney (2023). Restore and Renew Project Webtool. Website: <https://www.restore-and-renew.org.au/>

SGM Environmental (2024). Triton Rock Storage Facility Final Landform Design'

Skelt K., Ife D., Woolley D., Hillier J., Evans R., 2004. Murray-Darling Basin groundwater status 1990-2000: catchment report. Technical report, Murray-darling Basin Commission, Canberra.

Standards Australia (2001). Australian Standard AS 2601-2001 The Demolition of Structures

Standards Australia (2006). Australian Standard AS 2187.2 2006 Explosives – Storage, Transport and Use.

Watkins J.J., 1996, Nyngan 1:250000 Geological Sheet SH/55-15, 1st edition, Geological Survey of new South Wales, Sydney.

Weeds Australia (2026). Weeds of national Significance (weed Profiles). <https://weeds.org.au/weeds-profiles/>

Doc No: AIS-ADM-TMP-0003	Title: Constellation Copper Mine: Rehabilitation Management Plan	Location: [Entity Text]	Revision: 0
Next Review Date: [Next Review Date]	This document is UNCONTROLLED once printed		Page: 151 of 151