



WESTLIME'S THE BEST LIME™

ABN: 69 074 517 267



Rehabilitation Management Plan

for M(MO)L5

Canowindra Limestone Mine

October 2023



Prepared by:

RWCorkery&co



ACKNOWLEDGEMENT

R.W. Corkery & Co. acknowledge and pay our respects to the Traditional Custodians of the lands comprising NSW and Australia on which our projects are located. We appreciate the knowledge, advice and involvement of the Elders and extended Aboriginal community that contribute to our Projects and extend our respect to all Aboriginal and Torres Strait Islander peoples.





Rehabilitation Management Plan

for

M(MO)L5 – Canowindra Limestone Mine

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Ref No. 892/32

October 2023

Summary Table

Name of Mine		Canowindra Limestone Mine		
RMP Commencement Date		2 July 2022		
Mineral Authorities		M(MO)L5	Expiry Date	20 June 2038
Name of Leaseholder		Phillip Robinson Wythes		
Version	Author	Purpose	Approved by	Date of Submission
1	I Devane	Finalise RMP	A Commins	19 April 2023
2	I Devane	Update approved RObj in RMP	A Commins	22 September 2023
3	I Devane	Finalise approved RObj in RMP	A Commins	3 October 2023

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LIST OF ACRONYMS

AHD	Australian Height Datum
ALA	Assessment Lease Application
BBAM	BioBanking Assessment Methodology
DA	Development Application
DECC	Department of Energy and Climate Change
DPE	Department of Planning and Environment
DPI	Department of Primary Industry
DRE	Department of Resources and Energy
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ML	Mining Lease
MOP	Mining Operations Plan
NSW	New South Wales
OEH	Office of Environment and Heritage
RME	Rangott Mineral Exploration
RMP	Rehabilitation Management Plan
RMS	Roads and Maritime Services
ROM	Run-of-Mine
RWC	R. W. Corkery & Co. Pty Limited
SSD	State Significant Development

1. Introduction to Mining Project

This Rehabilitation Management Plan (RMP) Canowindra Limestone Mine has been prepared by R.W. Corkery & Co. Pty Limited (RWC) on behalf of Westlime Quarries Pty Limited (the “Company”). This RMP has been prepared in accordance with the following documents and guidelines.

- *Form and Way: Rehabilitation Management Plan for Large Mines (July 2021).*
- *Form and Way: Rehabilitation Objectives, Rehabilitation Completion Criteria and Final Landform and Rehabilitation Plan for Large Mines (October 2022).*
- *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 (April 2023).*

1.1 History of Operations

The Canowindra Limestone Mine (the “Mine”) is located approximately 10km northeast of Canowindra in the Central West of NSW (**Figure 1**). M(MO)L5 (the Mine Site) is held by Phillip Robinson Wythes and the Mine is operated by Westlime Quarries Pty Limited. Mining operations commenced at the Mine Site in August 2017. As of 30 June 2022, a total of 518 582t of products (i.e. agricultural lime, roadbase and other products) have been produced at the Mine.

The Company has held a range of Exploration Licences over the Mine Site since 2004. In June 2014 a surface mapping and sampling program identified high grade limestone at surface within the Mine Site. An initial drilling program was undertaken in November 2014, and a follow-up drilling program was undertaken in September 2015. An additional desktop review of the prospectivity of the Mine Site for Group 1 minerals was conducted in May 2015.

Development consent for the Mine, namely DA 2016/128, was granted by Cabonne Shire Council on 20 December 2016 and specifies that the Mine is approved to extract up to 250 000tpa of limestone and weathered material for a period of 27 years until 19 December 2043, within an Extraction Area of approximately 12.3ha. **Figure 2** presents the approved Mine Site layout and **Figure 3** presents the approved stages of Mine development.

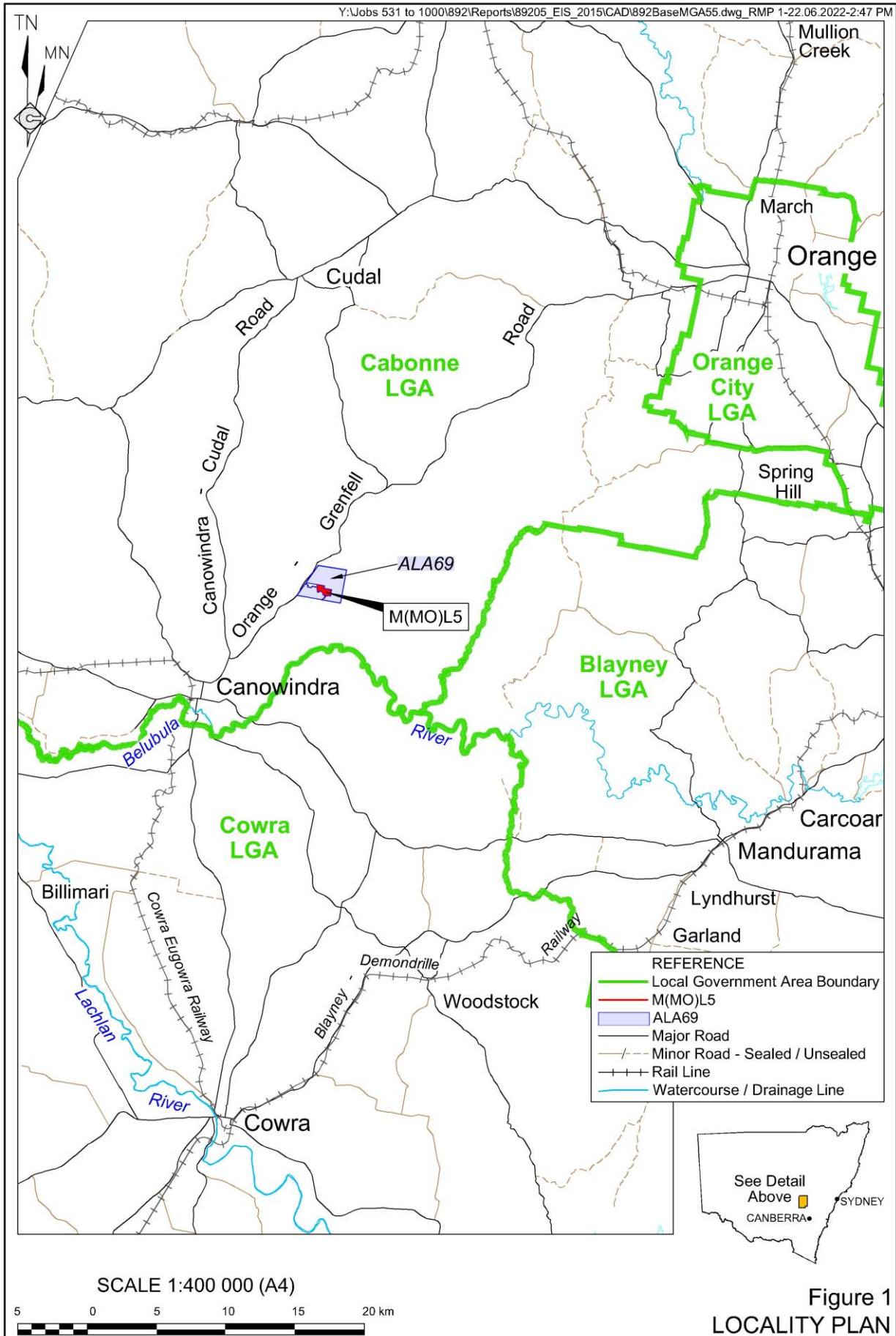
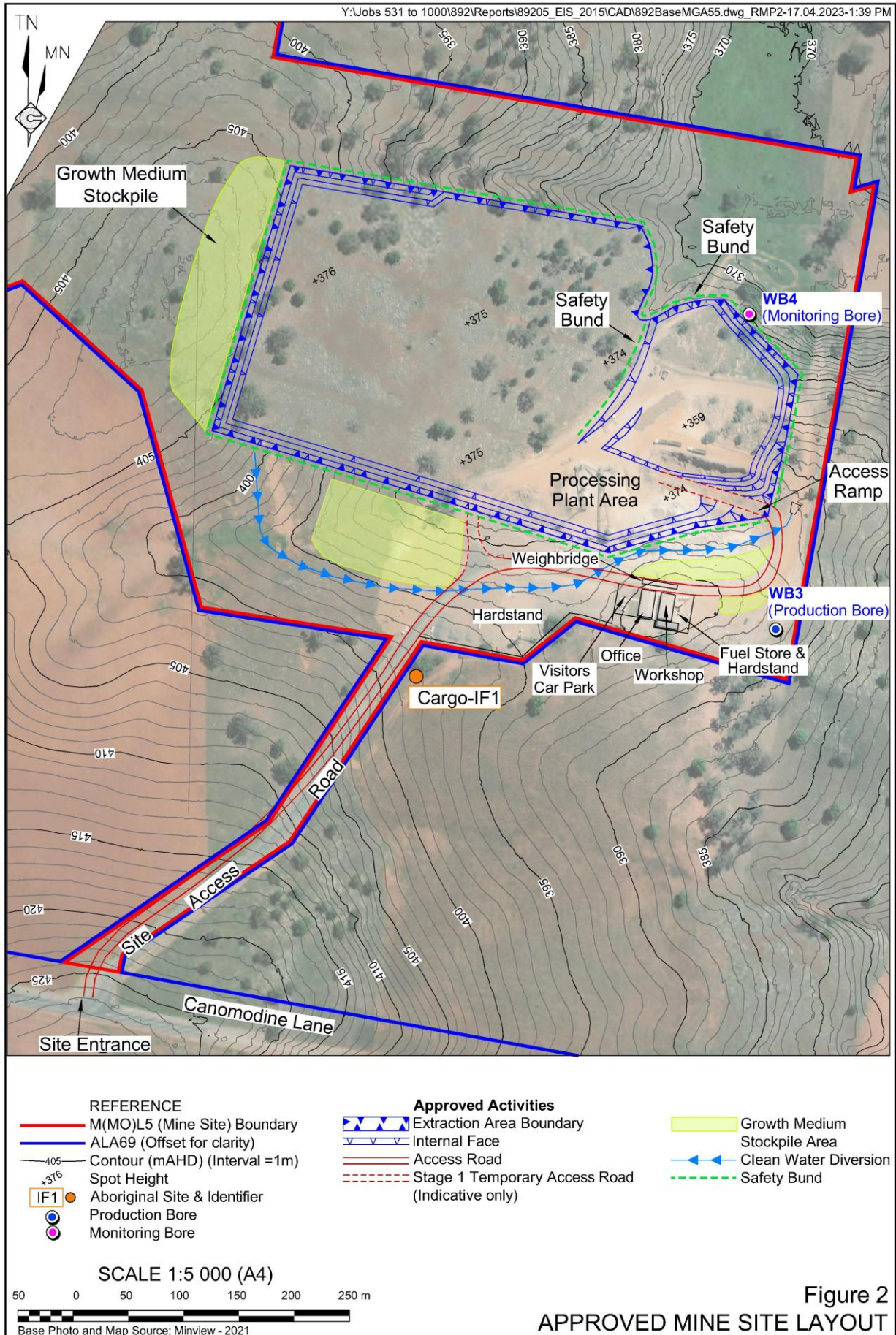


Figure 1
LOCALITY PLAN



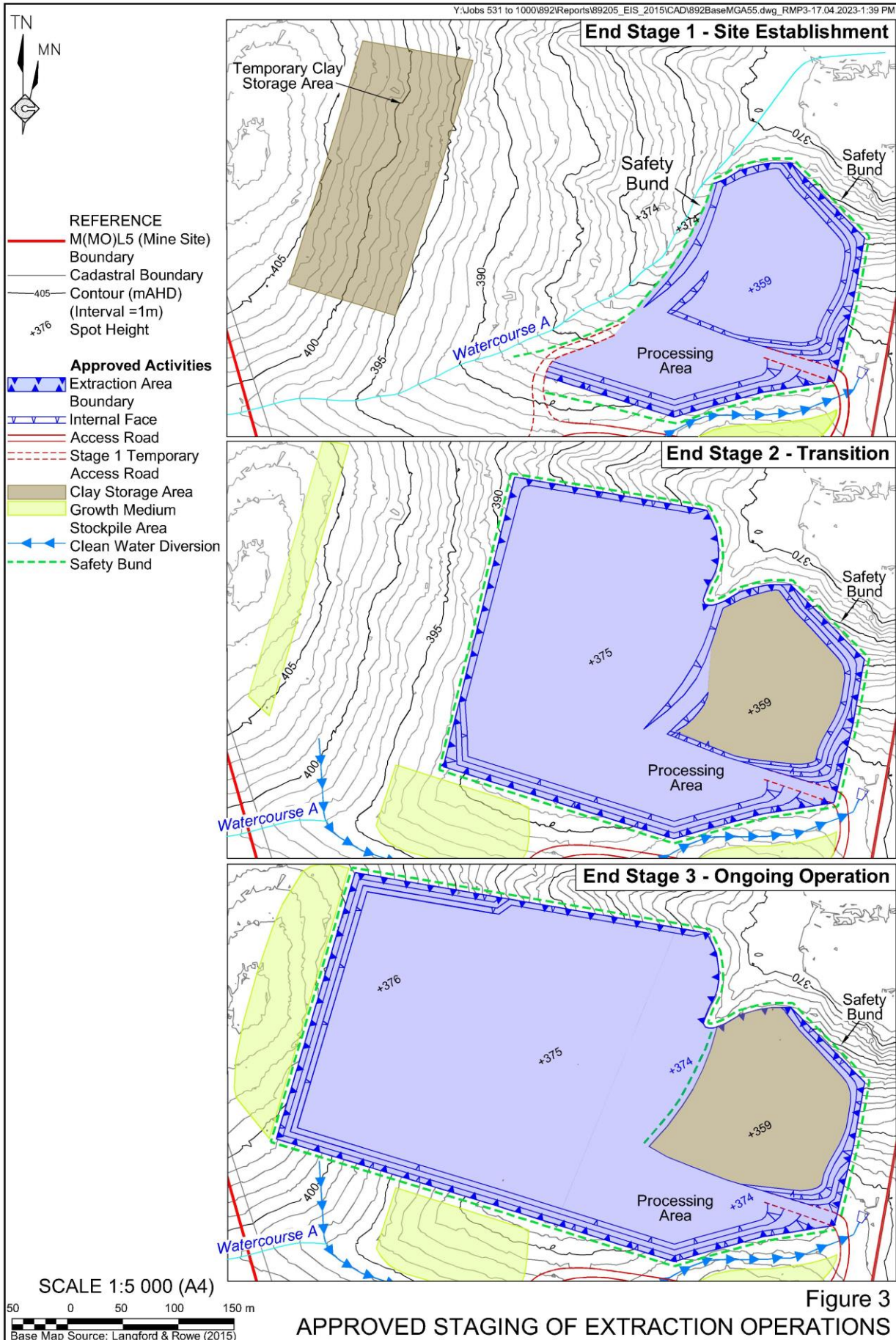


Figure 3
APPROVED STAGING OF EXTRACTION OPERATIONS

1.2 Current Development Consents, Leases and Licences

Table 1 presents the relevant consents, authorisations and licences held in relation to the Mine.

Table 1
Current and Previous Mineral Authorities

Instrument	Instrument Number	Date of Approval	Date of Expiry	Purpose
Development Consent	DA 2016/128	20 December 2016	19 December 2043	Canowindra Limestone Mine Development Consent
Mining Lease	M(MO)L5	20 June 2017	20 June 2038	Mining Activities
Environment Protection Licence	EPL20958	30 June 2017	nil	Control of pollution impacts
Assessment Lease Application	ALA69	27 June 2019 ¹	Assessment Lease Application	Secure possible extensions of the limestone resource outside the area covered by M(MO)L5

Note 1: Application date.

1.3 Land Ownership and Land Use

1.3.1 Land Ownership

Table 2 and **Figure 4** presents land ownership within and surrounding the Mine Site. Land within the Mine Site is registered to PR Wythes.

1.3.2 Land Use

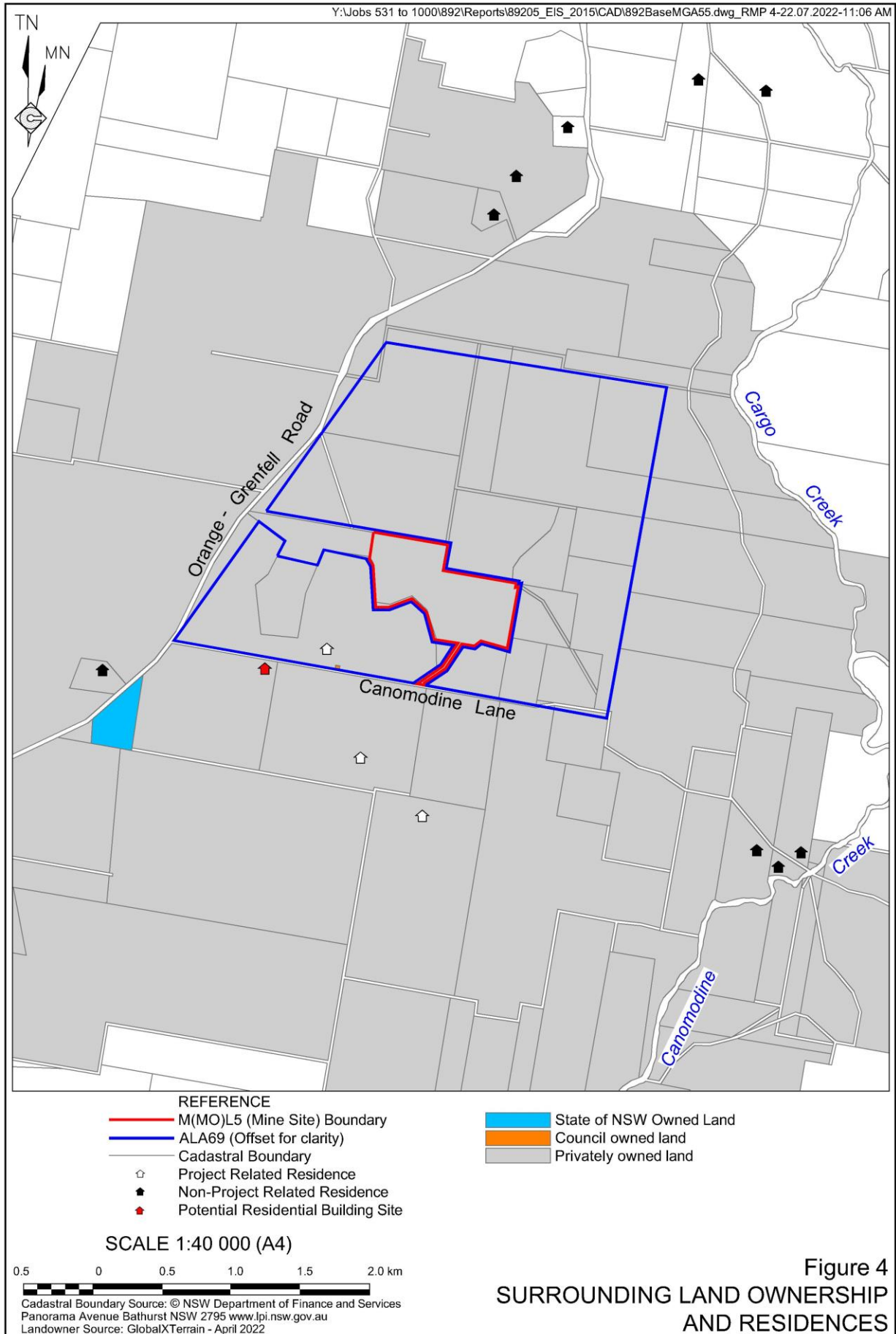
Current land uses within and surrounding the Mine Site include the following (**Figure 5**).

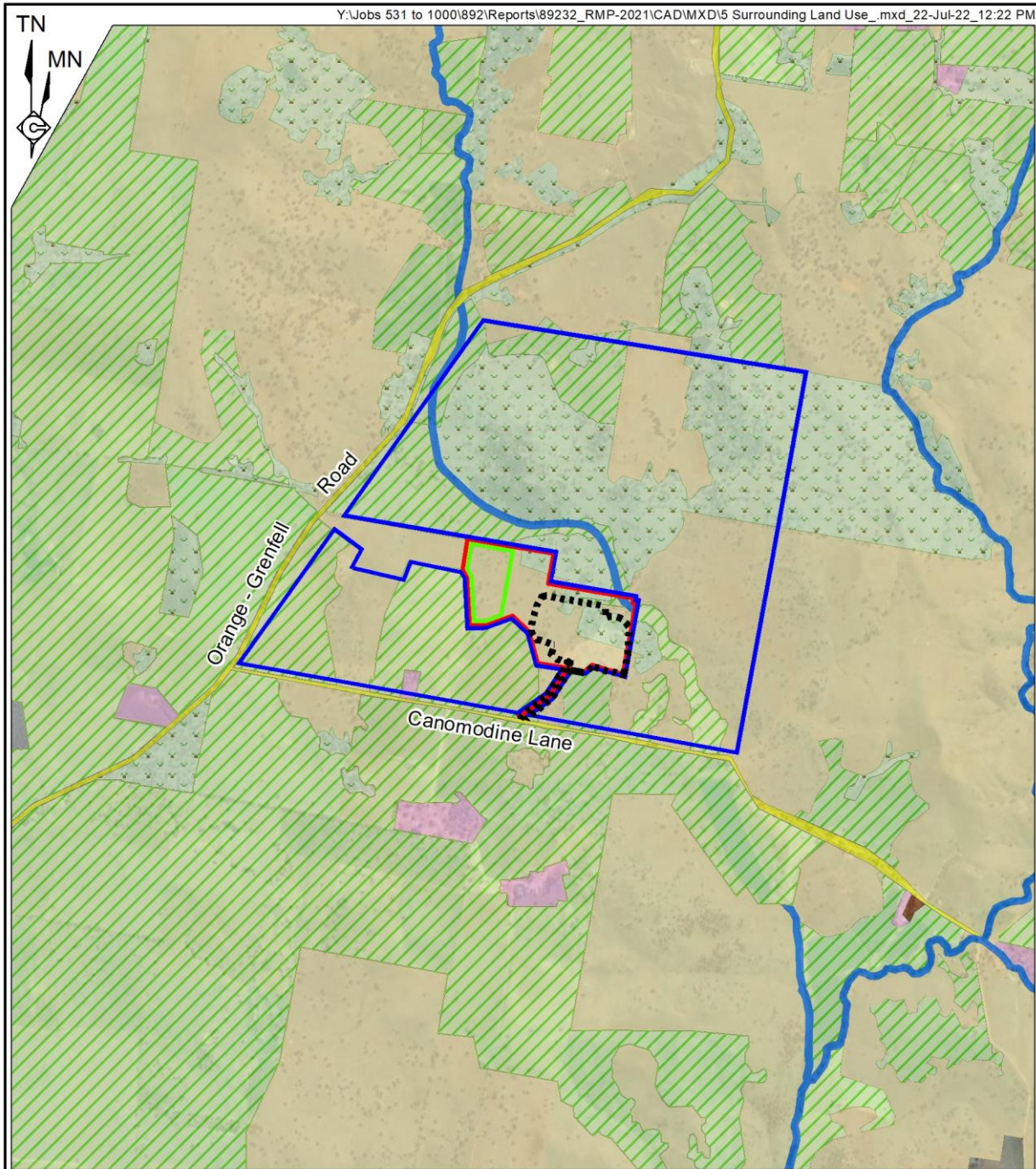
- Agriculture – principally grazing on native and modified pasture and cropping.
- Biodiversity offset with limited grazing secured in perpetuity under a Property Vegetation Plan.
- Mining and related activities within the approved disturbance area.
- Transportation – namely the Orange-Grenfell Road and Canomodine Lane.
- Pumping Station – a pumping station operated by Central Tablelands Water is located to the west of the Mine Site on Canomodine Lane.
- Approved final land uses within the Mine Site include agriculture, principally grazing or modified pasture.

Figure 6 presents vegetation communities within and surrounding the Mine Site.

Table 2
Land Ownership

Lot	Deposited Plan	Tenure	Owner
2	1145900	Freehold	Viridis Ag Pty Ltd
9	599848	Freehold	Mawingo Pty Ltd
69, 117	750130		
1	181009		
1	514418	Local Government Authority	Central Tablelands County Council
201	1232203	Freehold	P.R. Wythes
2, 3	1093373	Freehold	Maji Mazuri Pty Limited
42	750130		
6	600160		
1	604994	Freehold	Private Individual
35, 80, 92, 95	750130		
200	1232203		
113, 114	750147		
93, 108	750130	Freehold	Private Individual
142	750130	Freehold	Private Individual
1	1145900	Freehold	Private Individual
7002	1019937	Crown Land	The State of New South Wales
101	1029046	Freehold	Private Individual
100, 103	1029046	Freehold	Private Individual
1	320332	Freehold	Private Individual
13	665351		
7, 10, 14, 18, 25, 66, 67, 109, 110, 139, 143	750130		
3, 25, 50, 57, 58, 100, 101	750144		
95	750145		
10, 20, 36, 37, 39, 95	750147		
4, 6	882990		
118	1093446		





Note: Some boundaries are coincident & are offset for clarity

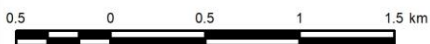
REFERENCE

- M(MO)L5 (Mine Site) Boundary
- ALA69
- Approved Mining Disturbance
- Biodiversity Offset Area

Land Uses

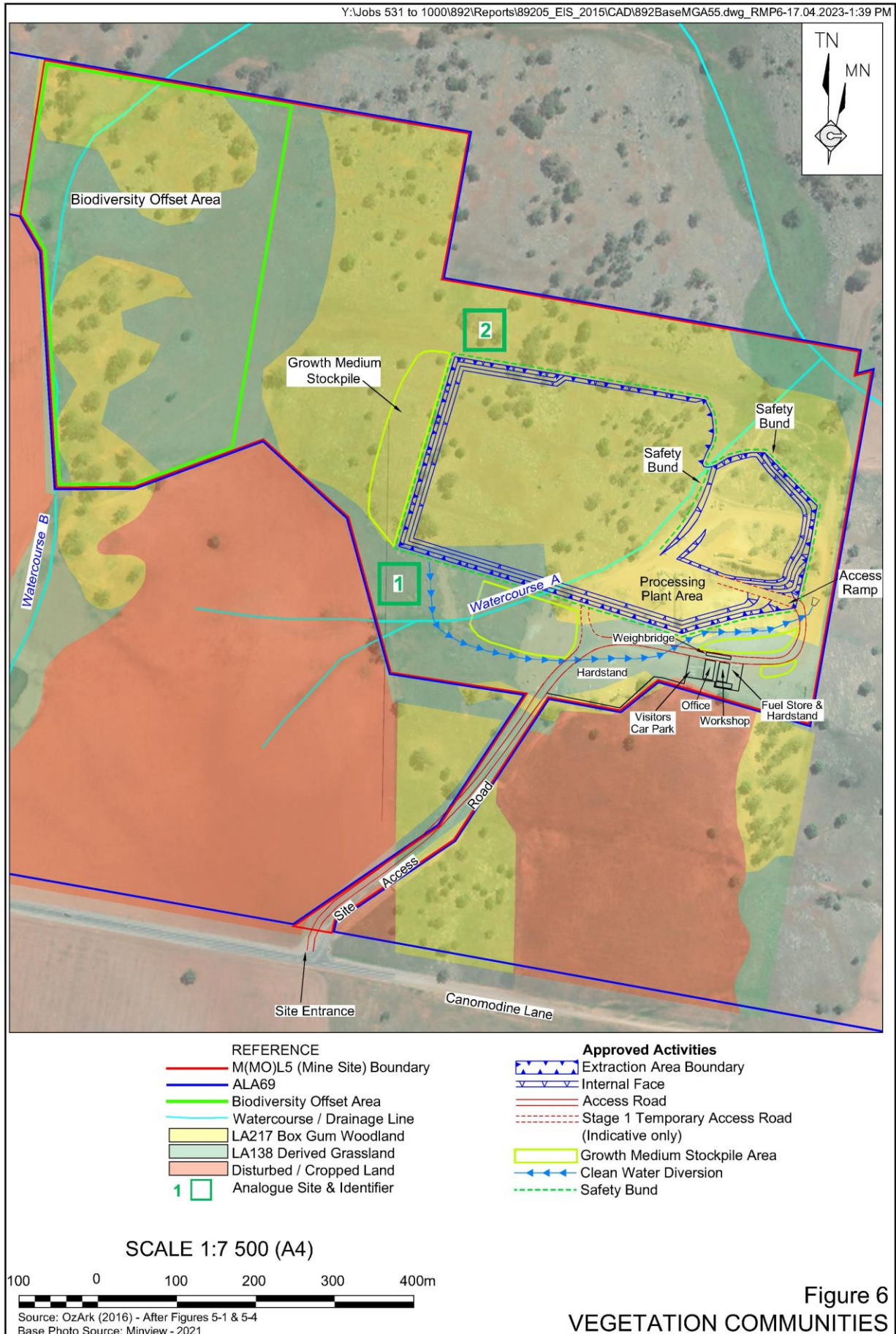
- 1.2.0 Managed resource protection
- 2.1.0 Grazing native vegetation
- 3.2.0 Grazing modified pastures
- 3.3.0 Cropping
- 5.2.0 Intensive animal production
- 5.4.0 Residential and farm infrastructure
- 5.7.0 Transport and communication
- 6.3.0 River

SCALE 1:40 000 (A4)



Source: NSW Land Use & Management (2017)

Figure 5
SURROUNDING LAND USES



2. Final Land Use

2.1 Regulatory Requirements for Rehabilitation

Table 3 lists the regulatory requirements relating to rehabilitation of the Mine Site and post-mining land uses.

Table 3
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
M(MO)L5	1	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	Mine Site	During operation and rehabilitation	This document
	4	<p>Must prevent or minimise harm to the environment</p> <p>(1) The holder of a mining lease must take all reasonable measures to prevent, or if that is not reasonably practicable, to minimise, harm to the environment caused by activities under the mining lease.</p> <p>(2) In this clause – harm to the environment has the same meaning as in the <i>Protection of the Environment Operations Act 1997</i>.</p>			
	5	<p>Rehabilitation to occur as soon as reasonably practicable after disturbance</p> <p>The holder of a mining lease must rehabilitate land and water in the mining area that is disturbed by mining activities under the mining lease as soon as reasonably practicable after the disturbance occurs.</p>			Section 6.1
	6	<p>Rehabilitation must achieve final land use</p> <p>(1) The holder of a mining lease must ensure that rehabilitation of the mining area achieves the final land use for the mining area.</p> <p>(2) The holder of a mining lease must ensure any planning approval has been obtained that is necessary to enable the holder to comply with subclause (1).</p> <p>(3) The holder of the mining lease must identify and record any reasonably foreseeable hazard that presents a risk to the holder's ability to comply with subclause (1)</p> <p>Note – clause 7 requires a rehabilitation risk assessment to be conducted whenever a hazard is identified under this subclause.</p> <p>(4) In this clause –</p> <p>final land use for the mining area means the final landform and final land uses to be achieved for the mining area –</p> <p>(a) as set out in the rehabilitation objectives statement and rehabilitation completion criteria statement, and</p> <p>(b) for a large mine – as spatially depicted in the final landform and rehabilitation plan, and</p> <p>(c) if the final land use for the mining area is required by a condition of development consent for activities under the mining lease – as stated in the condition.</p> <p>planning approval means –</p> <p>(a) a development consent within the meaning of the <i>Environmental Planning and Assessment Act 1979</i>, or an approval under that Act, Division 5.1.</p>			Section 2, 3, 10

Table 3 (Cont'd)
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
M(MO)L5 (Cont'd)	7	<p>Rehabilitation risk assessment</p> <p>(1) The holder of a mining lease must conduct a risk assessment (a <i>rehabilitation risk assessment</i>) that –</p> <p>(a) identifies, assesses and evaluates the risks that need to be addressed to achieve the following in relation to the mining lease –</p> <p>(i) the rehabilitation objectives,</p> <p>(ii) the rehabilitation completion criteria,</p> <p>(iii) for large mines – the final land use as spatially depicted in the final landform and rehabilitation plan, and</p> <p>(b) identifies the measures that need to be implemented to eliminate, minimise or mitigate the risks.</p> <p>(2) The holder of the mining lease must implement the measures identified.</p> <p>(3) The holder of a mining lease must conduct a rehabilitation risk assessment –</p> <p>(a) for a large mine – before preparing a rehabilitation management plan, and</p> <p>(b) for a small mine – before preparing the rehabilitation outcome documents for the mine, and</p> <p>(c) whenever a hazard is identified under clause 6(3) – as soon as reasonably practicable after it is identified, and</p> <p>whenever given a written direction to do so by the Secretary.</p>			Section 3, 10
	9	<p>General requirements for documents</p> <p>A document required to be prepared under this Division must—</p> <p>(a) be in a form approved by the Secretary, and Note— The approved forms are available on the Department’s website.</p> <p>(b) include any matter required to be included by the form, and</p> <p>(c) if required to be given to the Secretary—be given in a way approved by the Secretary.</p>			This document

Table 3 (Cont'd)
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
M(MO)L5 (Cont'd)	10	<p>Rehabilitation management plans for large mines</p> <p>(1) The holder of a mining lease relating to a large mine must prepare a plan (a rehabilitation management plan) for the mining lease that includes the following—</p> <ul style="list-style-type: none"> (a) a description of how the holder proposes to manage all aspects of the rehabilitation of the mining area, (b) a description of the steps and actions the holder proposes to take to comply with the conditions of the mining lease that relate to rehabilitation, (c) a summary of rehabilitation risk assessments conducted by the holder, (d) the risk control measures identified in the rehabilitation risk assessments, (e) the rehabilitation outcome documents for the mining lease, (f) a statement of the performance outcomes for the matters addressed by the rehabilitation outcome documents and the ways in which those outcomes are to be measured and monitored. <p>(2) If a rehabilitation outcome document has not been approved by the Secretary, the holder of the mining lease must include a proposed version of the document.</p> <p>(3) A rehabilitation management plan is not required to be given to the Secretary for approval.</p> <p>(4) The holder of the mining lease—</p> <ul style="list-style-type: none"> (a) must implement the matters set out in the rehabilitation management plan, and (b) if the forward program specifies timeframes for the implementation of the matters—must implement the matters within those timeframes. 			This document
	11	<p>Amendment of rehabilitation management plans</p> <p>The holder of a mining lease must amend the rehabilitation management plan for the mining lease as follows—</p> <ul style="list-style-type: none"> (a) to substitute the proposed version of a rehabilitation outcome document with the version approved by the Secretary—within 30 days after the document is approved, (b) as a consequence of an amendment made under clause 14 to a rehabilitation outcome document—within 30 days after the amendment is made, (c) to reflect any changes to the risk control measures in the prepared plan that are identified in a rehabilitation risk assessment—as soon as practicable after the rehabilitation risk assessment is conducted, (d) whenever given a written direction to do so by the Secretary—in accordance with the direction. 			Section 11

Table 3 (Cont'd)
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
M(MO)L5 (Cont'd)	12	<p>Rehabilitation outcome documents</p> <p>(1) The holder of a mining lease must prepare the following documents (<i>the rehabilitation outcome documents</i>) for the mining lease and give them to the Secretary for approval—</p> <ul style="list-style-type: none"> (a) the <i>rehabilitation objectives statement</i>, which sets out the rehabilitation objectives required to achieve the final land use for the mining area, (b) the <i>rehabilitation completion criteria statement</i>, which sets out criteria, the completion of which will demonstrate the achievement of the rehabilitation objectives, (c) for a large mine, the <i>final landform and rehabilitation plan</i>, showing a spatial depiction of the final land use. <p>(2) If the final land use for the mining area is required by a condition of development consent for activities under the mining lease, the holder of the mining lease must ensure the rehabilitation outcome documents are consistent with that condition.</p>			Section 2.2, 4, 5
	13	<p>Forward program and annual rehabilitation report</p> <p>(1) The holder of a mining lease must prepare a program (a <i>forward program</i>) for the mining lease that includes the following—</p> <ul style="list-style-type: none"> (a) a schedule of mining activities for the mining area for the next 3 years, (b) a summary of the spatial progression of rehabilitation through its various phases for the next 3 years, (c) a requirement that the rehabilitation of land and water disturbed by mining activities under the mining lease must occur as soon as reasonably practicable after the disturbance occurs. <p>(2) The holder of a mining lease must prepare a report (an <i>annual rehabilitation report</i>) for the mining lease that includes—</p> <ul style="list-style-type: none"> (a) a description of the rehabilitation undertaken over the annual reporting period, (b) a report demonstrating the progress made through the phases of rehabilitation provided for in the forward program applying to the reporting period, (c) a report demonstrating progress made towards the achievement of the following— <ul style="list-style-type: none"> (i) the objectives set out in the rehabilitation objectives statement, (ii) the criteria set out in the rehabilitation completion criteria statement, (iii) for large mines—the final land use as spatially depicted in the final landform and rehabilitation plan. 			Section 11

Table 3 (Cont'd)
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
M(MO)L5 (Cont'd)	13 (Cont'd)	<p>(3) If a rehabilitation outcome document has not been approved by the Secretary, the holder of the mining lease must rely on a proposed version of the document.</p> <p>(4) The holder of the mining lease must give the forward program and annual rehabilitation report to the Secretary.</p> <p>(5) In this clause— annual reporting period means each period of 12 months commencing on—</p> <p>(a) the date on which the mining lease is granted, or</p> <p>if the Secretary approves another date in relation to the mining lease— the other date</p>			
	14	<p>Amendment of rehabilitation outcome documents and forward program</p> <p>(1) This clause applies to—</p> <p>(a) a rehabilitation outcome document if it has been approved by the Secretary, and</p> <p>(b) a forward program if it has been given to the Secretary.</p> <p>(2) The holder of a mining lease must not amend a document to which this clause applies that relates to the mining lease unless—</p> <p>(a) the Secretary gives the holder a written direction to do so, or</p> <p>(b) the Secretary, on written application by the holder, gives a written approval of the amendment.</p> <p>(3) The holder of the mining lease must amend the document in accordance with the Secretary's direction or approval.</p> <p>(4) Nothing in this clause prevents the holder of a mining lease preparing a draft amendment for submission to the Secretary for approval.</p>			Section 11
	15	<p>Times at which documents must be prepared and given</p> <p>(1) The holder of a mining lease must do the following before the end of the initial period—</p> <p>(a) prepare a rehabilitation management plan, and</p> <p>(b) prepare rehabilitation outcome documents and give them, other than the rehabilitation completion criteria statement, to the Secretary for approval, and</p> <p>(c) prepare a forward program and give it to the Secretary.</p> <p>(2) The holder of the mining lease must prepare a forward program and annual rehabilitation report and give them to the Secretary before—</p> <p>(a) 60 days after the last day of each annual reporting period, commencing with the annual reporting period in which the forward program was given to Secretary under subclause (1)(c), or</p> <p>(b) a later date approved by the Secretary.</p>			Noted

Table 3 (Cont'd)
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
M(MO)L5 (Cont'd)	15 (Cont'd)	<p>(3) A rehabilitation completion criteria statement relating to completion of rehabilitation during a period covered by a forward program must be given to the Secretary for approval when the forward program is required to be given to the Secretary.</p> <p>(4) The holder of the mining lease must prepare updated rehabilitation outcome documents for the mining lease and give them to the Secretary for approval before—</p> <p>(a) 60 days after a development consent is modified following an application referred to in clause 20(1)(b), or</p> <p>(b) a later date approved by the Secretary.</p> <p>(5) A rehabilitation completion criteria statement is not required to be given to the Secretary under subclause (4) unless a rehabilitation completion criteria statement has already been given to the Secretary under subclause (3).</p> <p>(6) The Secretary may, by written notice, direct the holder of a mining lease to prepare, or give to the Secretary, a document required to be prepared under this Division at a time other than that specified in this clause.</p> <p>(7) The holder of the mining lease must comply with the direction.</p> <p>(8) In this clause— initial period means the period commencing when the mining lease is granted and ending—</p> <p>(a) 30 days, or other period approved by the Secretary, after this Division first applies to the mining lease, or</p> <p>(b) if this Division applies to the mining lease because of an increase in the required security deposit—</p> <p>(i) when the surface of the mining area is disturbed by activities under the mining lease, or</p> <p>(ii) at a later date approved by the Secretary.</p>			

Table 3 (Cont'd)
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
M(MO)L5 (Cont'd)	16	<p>Certain documents to be publicly available</p> <p>(1) This clause applies to the following documents—</p> <ul style="list-style-type: none"> (a) a rehabilitation management plan, (b) a forward program, (c) an annual rehabilitation report. <p>(2) The holder of a mining lease must make a document to which this clause applies publicly available by—</p> <ul style="list-style-type: none"> (a) publishing it on its website in a prominent position, or (b) if the holder does not have a website— providing a copy of it to a person— <ul style="list-style-type: none"> (i) on the written request of a person, and (ii) without charge, and (iii) within 14 days after the request is received. <p>(3) If a document is published on the website of the holder of the mining lease, the holder must ensure that it is published—</p> <ul style="list-style-type: none"> (a) for a rehabilitation management plan—within 14 days after it is prepared or amended, or (b) for a forward program or an annual rehabilitation report—within 14 days after it is given to the Secretary or amended, <p>(4) Personal information within the meaning of the <i>Privacy and Personal Information Protection Act 1998</i> is not required to be included in a document made available to a person under this clause.</p>			Noted
	17	<p>Records demonstrating compliance</p> <p>The holder of a mining lease must create and maintain records of all actions taken that demonstrate compliance with each of the conditions set out in this Part.</p> <p>Note— The Act, sections 163D and 163E provide for the form in which records must be kept and the period for which they must be retained.</p>			Section 7

Table 3 (Cont'd)
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
M(MO)L5 (Cont'd)	18	<p>Report on non-compliance</p> <p>(1) The holder of a mining lease must provide the Minister with a written report detailing any non-compliance with—</p> <p>(a) a condition of the mining lease, or Note— The Act, section 364A contains provisions relating to the use and disclosure of information provided under this condition.</p> <p>(b) a requirement of the Act or this Regulation relating to activities under the mining lease.</p> <p>(2) The holder of the mining lease must provide the report within 7 days after becoming aware of the non-compliance.</p> <p>(3) The holder of the mining lease must ensure the report—</p> <p>(a) identifies the condition of the mining lease, or the requirement of the Act or this Regulation, to which the non-compliance relates, and</p> <p>(b) describes the non-compliance and specifies the date or dates on which, or the period during which, the non-compliance occurred, and</p> <p>(c) describes the causes or likely causes of the non-compliance, and</p> <p>(d) describes the action that has been taken, or will be taken, to mitigate the effects, and to prevent any recurrence, of the non-compliance.</p>			Noted
DA 2016/128	9	Supplementary planting be conducted in the proposed Biodiversity Offset Area west of the project site boundary. Bird nesting boxes are to be constructed within the area, and timber containing hollows that is cleared from the mine site is to be relocated to the Offset Area as habitat.			Section 6.2.1.2, 6.2.1.3
	10	Additional areas of Box Gum Woodland EEC in woodland or derived native grassland form be sourced to provide a minimum offset area of 55 hectares.			Section 6.2.1.2, 6.2.1.3
	14	<p><u>Rehabilitation Objectives and Commitments</u></p> <p>To ensure the proposal operates in a manner that is not detrimental to the environment or locality.</p> <p><u>Mine Site</u></p> <p>Safe, stable and non-polluting, fit for the purpose of the intended post mining land use(s).</p> <p><u>Rehabilitation materials</u></p> <p>Materials (including topsoils, substrates and seeds of the disturbed areas) are covered, appropriately managed and used effectively as resources in the rehabilitation.</p>		<p>During operation and rehabilitation</p> <p>During operation and rehabilitation</p> <p>During rehabilitation</p>	<p>Section 4</p> <p>Section 6.2.3 – 6.2.6</p>

Table 3 (Cont'd)
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
DA 2016/128 (Cont'd)	14 (Cont'd)	<p>Landforms</p> <p>Final landforms sustain the intended land use for the post-mining domain(s).</p> <p>Final landforms are consistent with and complement the topography of the surrounding region to minimise the visual prominence of the final landforms in the post mining landscape.</p> <p>Final landforms incorporate design relief patterns and principles consistent with natural drainage.</p>		During rehabilitation	Section 2, 5
		<p>Water Quality</p> <p>Water retained on site is fit for the intended land use(s) for the post mining domain(s).</p> <p>Water discharged from the site is consistent with the baseline ecological, hydrological and geomorphic conditions of the creeks prior to the mining disturbance.</p> <p>Water management is consistent with the regional catchment strategy.</p>		During rehabilitation	Section 6.2.3.1
		<p>Native flora and fauna habitat and corridors</p> <p>Size, locations and species of native tree lots and corridors are established to sustain biodiversity habitats.</p> <p>Species are selected that re-establishes and complements regional and local biodiversity.</p>		During rehabilitation	Section 2.2, 3, 4, 6.2.1, 6.2.5
		<p>Post-mining agricultural pursuits</p> <p>The land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining within 5 years.</p>		During rehabilitation	Section 6.2.5, 6.2.6.2
	15	<p>The proponent shall carry out all surface disturbing activities (e.g. Pre-stripping in advance of mining operations) in a manner that, as far is reasonably practicable, minimises potential for dust emissions and shall carry out rehabilitation of disturbed areas progressively, as soon as reasonably practicable, to the satisfaction of the Director Environmental Sustainability, of the Division of Resources and Energy, Department of Industry, Skills and Regional Development.</p>		During operations and rehabilitation	Section 6.1, 6.2
16	<p>The proponent must prepare and implement a Rehabilitation Plan to the satisfaction of the Director Environmental Sustainability of the Division of Resources and Energy, Department of Industry, Skills and Regional Development, Department of Industries.</p> <p>Note: The approved Mining Operation Plan is required as a condition of the Mining Lease(s) issued in relation to this project and will satisfy the requirements of this condition for a Rehabilitation Plan.</p>	During operations and decommissioning	This document		
37	<p>All chemicals, fuels and oils shall be stored in appropriate bounded areas with impervious flooring and have sufficient capacity to hold 110% of the largest container stored within the bund area. The bund shall be designed and installed in accordance with the requirements of all relevant Australian Standards.</p>			Section 6.2.1.5, 6.2.2.5	

Table 3 (Cont'd)
Regulatory Requirements for Rehabilitation

Consent	Cond. No.	Requirement	Area	Timing	RMP Section
Long-term Rehabilitation Objectives					
Environmental Impact Statement (RWC, 2016)	Landform	As far as practicable blend the landform with the surrounding land fabric.	Mine Site	During operations and rehabilitation works	This document
		Provide a stable ground cover for erosion control.			
		To provide a low maintenance, stable and safe landform commensurate with a grazing land use capability.			
	Vegetation	Revegetate with native tress and scrub species comparable with pre-existing vegetation communities.			
Processing Plant and Infrastructure Areas	Remove all infrastructure not required for the final land use. Disturbed areas that will not be used for the final land use will be ripped, covered with available topsoil or suitable growth medium and allowed to revegetate naturally.				

2.2 Final Land Use Options Assessment

A final land use options assessment is not required as Condition 1 of DA2016/0128/4 states that development is to be undertaken in accordance with the accompanying plans, which includes the *Environmental Impact Statement for the Canowindra Limestone Project* (EIS) (RWC, 2016). Section 2.12.2 of the EIS (RWC, 2016) states that the final landform use will comprise the following.

- A free-draining revegetated Extraction Area with a flat to gently east sloping floor and benches 15m in height. A safety bund will be retained on the crest of the Extraction Area to prevent inadvertent access to the highwall.
- A stock watering dam with stabilised spillway.
- All other areas will be returned to the pre-existing landform.

The Company aims to provide a final landform that is safe, stable, non-polluting, and that complements the surrounding landforms and land uses. The approved post-mining rehabilitation objectives are divided into the following three specific categories. The specific objectives associated with each category are as follows.

Decommissioning and Landform Establishment

- To remove all processing-related infrastructure not required for the ongoing use of the Mine Site.
- To stabilise all disturbed areas and minimise erosion and dust generation.
- To provide a geotechnically stable, safe and non-polluting landform which provides land suitable for the final land use of occasional grazing within a native vegetation community, namely the White Box Yellow Box Blakely's Red Gum Woodland and Derived Native Grassland.

Growth Media Development and Ecosystem Establishment

- To provide for soil management over the life of the Plan which addresses the constraints related to stripping, storage, and replacement on the final landform.
- To achieve a soil profile capable of sustaining the specified final land use.
- To provide for surface micro-habitats such as fallen timber, surface rocks or other features which will encourage colonisation by native flora and fauna.
- To establish native tree, shrub and grass species comparable with the existing vegetation communities in the area. Particular emphasis will be placed on the use of White Box Yellow Box Blakely's Red Gum Woodland and Derived Native Grassland, an Endangered Ecological Community found within and surrounding the Mine Site.

Ecosystem Development (Final Land Use)

- To return all disturbed areas to a final land use of occasional grazing within a native vegetation community.

The final land use will be consistent with the pre-mining land use, namely occasional grazing within a native vegetation community. Therefore, it is noted that consultation has been undertaken for the EIS in Section 3 and no further consultation is required.

2.3 Final Land Use Statement

Final land uses within the Mine Site will include the following. For reference, the Final Land use Domain identifier shown on **Plan 1** is provided in brackets.

- Infrastructure Areas (I1) – The domain will be rehabilitated to rural land consistent with the surrounding landscape. All mine-related infrastructure and any structures not being retained in the final landform will be removed.
- Water Management Areas (F3, F5) – The clean water diversion will remain to prevent excess water from entering the final void and the sediment basin will remain in the landscape as a farm dam.
- Agricultural – Grazing (B1, B5, B8) – The remaining disturbed areas will be rehabilitated to rural land consistent with the surrounding landscape. The final void will be secured by a safety bund and fenced, with access restricted through a lockable gate.

2.4 Final Land Use and Mining Domains

2.4.1 Introduction

The *Form and Way: Rehabilitation Management Plan for Large Mines (July 2021)* 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.”

2.4.2 Final Land Use Domains

Table 4 and **Plan 1** identify the final land use domains for the Mine Site.

Table 4
Final Land Use Domains

Final Land Use Domain	Domain ID ¹	Domain Description
Infrastructure Area	I	This domain includes all infrastructure that is to be retained within the Mine Site, principally relating to the retained Site Access Road.
Water Management Area	F	This domain includes the sediment basin, which will be retained in the final landform as a farm dam, and clean water diversion which will direct clean water around the final void.
Agricultural – Grazing	B	This domain includes all areas that will be rehabilitated in a manner suitable for agricultural purposes. The final land capability classification within this domain will be Class 6, consistent with land capability prior to mining disturbance and the surrounding topography.

Note 1: See **Plan 1**

2.4.3 Mining Domains

Table 5 and **Figure 7** identify the mining domains for the Mine Site.

Table 5
Mining Domains

Mining Domain	Domain ID ¹	Domain Description
Infrastructure Area	1	This domain includes the Site Access Road and internal access roads, office, weighbridge, workshop, oil store, and hardstand ovens.
Water Management Area	3	This domain includes clean water diversions which divert clean water away from disturbed areas of the Mine Site.
Active Mining Area	5	This domain includes all areas that will be the subject of extraction operations. In addition, the domain will also include the Processing Plant and lime shed.
Other – Stockpile Area	8a	This domain includes areas used for stockpiling of growth medium and, during Stage 1 operations, stockpiling of raw feed and final products.
Other – Biodiversity Offset Area	8b	This domain includes the biodiversity offset area associated with the development consent for the Mine. ²

Note 1: See **Figure 7**

Note 2: Note that mining domain 8b is not shown as a rehabilitation domain on **Plan 1** as this area does not constitute rehabilitation of disturbance.

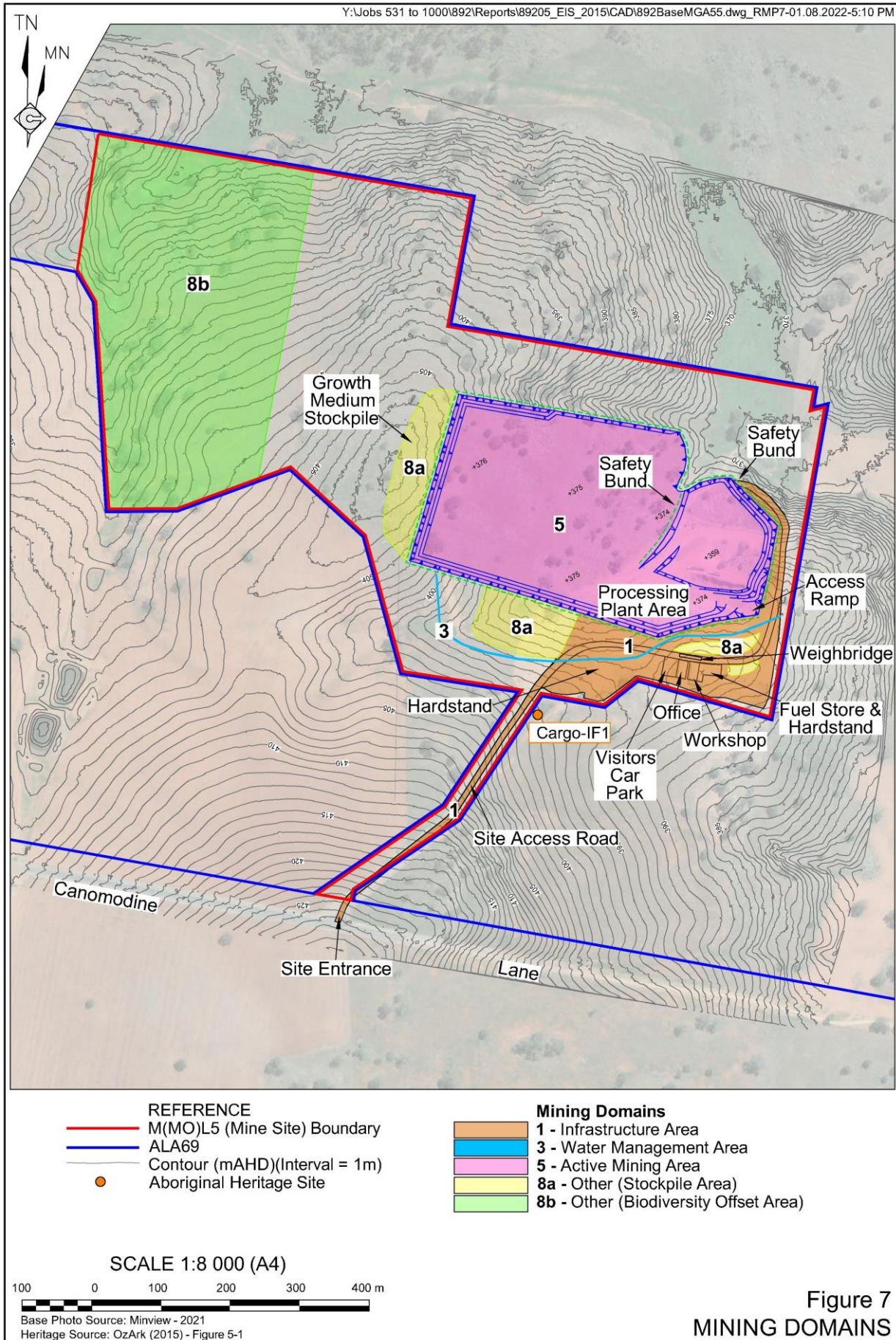


Figure 7
MINING DOMAINS

3. Rehabilitation Risk Assessment

The risk assessment was undertaken generally in accordance with *AS/NZS ISO 31000:2018 Risk Management – Principles & Guidelines*.

For each identified risk to rehabilitation, potential adverse outcomes were identified and allocated a risk rating based on the potential consequences and likelihood of occurrence. **Tables 6, 7 and 8** present the consequence, likelihood and risk rating used during this analysis. 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.

Table 9 presents the summarised results of the risk analysis, showing risks deemed moderate or above, assuming the implementation of standard mitigation measures and those outlined within this Plan. A copy of the full risk assessment can be found in **Appendix 1** and will be maintained on site as a record in accordance with Clause 17 of Schedule 8A of the Mining Regulation 2016.

Table 6
Qualitative Consequence Rating

Level	Descriptor	Description
1	Negligible	No detrimental impact on the environment is measurable or envisaged.
2	Minor	An event which could have temporary and minor effects on the environment, such as a non-reportable environment incident.
3	Moderate	An event which would create substantial temporary or minor permanent damage to the environment, such as a reportable incident not likely to result in prosecution.
4	Major	An event which could have a substantial and permanent consequence to the environment such as an environmental incident which would result in prosecution, adverse local publicity and community complaints.
5	Severe	A major event which could cause severe damage to the environment with actual or potential loss of credibility with key stakeholders, environmental liability, regulatory intervention, national publicity/complaints, or could close the operation prematurely.
Note: Rating modified after AS/NZS ISO31000:2009 Risk Management – Principles and Guidelines		

Table 7
Qualitative Likelihood Rating

Level	Descriptor	Description
A	Certain	Is an ongoing occurrence or will occur under all conditions.
B	Almost Certain	Is expected to occur in most circumstances.
C	Likely	Will probably occur in most circumstances.
D	Possible	Might occur at some time.
E	Unlikely	Could occur at some time.
F	Rare	May occur only in exceptional circumstances.
G	Very Rare	Theoretically possible but not expected to occur.

Source: Rating modified after HB 89:2012 – Figure B7

Table 8
Qualitative Risk Rating

Likelihood	Consequences				
	Negligible 1	Minor 2	Moderate 3	Major 4	Severe 5
A (Certain)	M	H	H	VH	VH
B (Almost Certain)	M	H	H	VH	VH
C (Likely)	M	M	H	H	VH
D (Possible)	L	M	M	H	H
E (Unlikely)	L	L	M	M	H
F (Rare)	L	L	L	M	M
G (Very Rare)	L	L	L	L	M

Note: Rating modified after HB 89:2012 – Figure B8

Table 9
Summarised Rehabilitation Risk Assessment

Risk	Risk Control	Final Land Use Domain			Where Addressed in RMP
		Domain B: Agricultural – Grazing	Domain G: Water Storage (Excluding Final Void)	Domain I: Infrastructure	
Unstable landform due to mass movement issues associated with inappropriate design and/or quality assurance during landform construction.	Safe and stable Extraction Area walls during mining operations Geotechnical assessment prior to relinquishment.	M (E3)	M (E3)	M (E3)	6.2.3.2, 6.2.6.2
Weed infestation associated with both introduction and control (or lack thereof).	Weed and pest control program	M (D2)	NA	NA	6.2.5, 6.2.6.1, 8
Adverse weather and climatic influences (e.g. drought; intense rainfall events; bushfire and climate change).	Meteorological monitoring. Rehabilitation planning/scheduling	M (D3)	NA	NA	6.2.5, 6.2.6.2, 6.2.6.3, 8

4. Rehabilitation Objectives and Rehabilitation Completion Criteria

4.1 Introduction

Performance indicators and completion criteria provide a means by which the progress of rehabilitation can be measured to quantitatively demonstrate the successful achievement of a biophysical process, i.e., the standards that are to be met by successful rehabilitation.

4.2 Rehabilitation Objectives and Rehabilitation Completion Criteria

Table 10 provides the performance indicators and proposed completion criteria developed for the Mine to achieve the nominated post mining land use goals and rehabilitation objectives.

It is noted that details of monitoring completed against completion criteria will be reported through the respective annual reporting and either a final report or separate relinquishment report.

Table 10
Approved Rehabilitation Objectives and Rehabilitation Completion Criteria

Final Land Use Domain	Mining Domain	Spatial Ref. ²	Rehabilitation Objective	Indicator	Rehabilitation Completion Criteria	Validation Method
Infrastructure Area	Infrastructure Area	I1	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community.	Presence of services. Infrastructure, including buildings, not required for final land use removed.	All relevant services disconnected. All relevant infrastructure removed unless specified to be retained.	Relinquishment inspection and report, including photographs.
			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)	Retained infrastructure is safe and secure. Roads not required for final land use are removed. Roads required for final land use are reduced in width (if required). Retained infrastructure and roads are approved for retention	All relevant infrastructure made safe and secure in a manner suitable for the approved final land use Roads removed unless specified to be retained Road to be retained reduced in width to that suitable for final land use, nominally 4m wide. Written agreement from the landowner for the retention of the infrastructure.	
			There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.	Absence of contamination on site that is incompatible with the final land use or that poses a threat of environmental harm. No hazardous materials remain.	Contaminated land assessment indicates contamination acceptable for final land use.	Contamination report prepared by qualified person.
			Groundwater quality is consistent with historical groundwater monitoring from monitoring bore WB4 and in line with anticipated quality in the region.	Similarity of groundwater quality to pre-disturbance groundwater quality.	Groundwater monitoring results indicate similarity and acceptability of groundwater quality.	Groundwater quality testing at WB4 annually following the cessation of mining. Monitoring reported annually through annual reporting.
			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.
				Removal of all plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples.	Infrastructure removed.	As-constructed final landform plan, photos, decommissioning reports.
				Presence of erosion / sedimentation controls and monitored water quality.	Water quality meets the objective of Section 120 of the Protection of the Environment Operations Act 1997. 'Downstream' water quality monitoring records total suspended solids <50mg/L or within 10% of 'upstream' levels (whichever is the greater).	Water quality testing during discharge and/or annually at the farm dam following the cessation of mining operations. Monitoring reported annually through annual reporting.
			Runoff water quality from mine site meets the requirements of the development consent / EPL and does not present a risk of environmental harm, and is consistent with the regional catchment strategy.	Landform and retained water management structures are non-polluting.	Water quality meets the objective of Section 120 of the Protection of the Environment Operations Act 1997. 'Downstream' water quality monitoring records total suspended solids <50mg/L or within 10% of 'upstream' levels (whichever is the greater).	Water quality testing during discharge and/or annually at the farm dam following the cessation of mining operations.
			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. Landform that is commensurate with surrounding natural landform including topography, relief patterns, and natural drainage.	Clean water diversion is stable and capable of transferring surface water flows at non-erosive velocities. Clean water diversion is commensurate with surrounding natural landscape.	Clean water diversion does not show signs of active erosion and is assessed to be stable.	Relinquishment inspection and report, including photographs.
			Landform that is commensurate with surrounding natural landform including topography, relief patterns, and natural drainage.	Visual - indicators that surface water management structure are functioning as designed.	Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works. Visual – no evidence of active scour likely to compromise surface water management structure.	Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys

Table 10 (Cont'd)
Approved Rehabilitation Objectives and Rehabilitation Completion Criteria

Final Land Use Domain	Mining Domain	Spatial Ref. ²	Rehabilitation Objective	Indicator	Rehabilitation Completion Criteria	Validation Method	
Water Management Area	Active Mining Area	F5	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.	Infrastructure not required for final land use removed.	All relevant infrastructure removed.	Relinquishment inspection and report, including photographs.	
			Domain is free from hazardous materials and contaminants.	Absence of contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.	Contaminated land assessment indicates any contamination is acceptable for final land use.	Contamination report prepared by qualified person.	
			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.	Sediment basin/stock watering dam is stable and includes a suitably constructed spill way for overflow of water to surrounding agricultural land and drainage lines.	Geotechnical review shows basin walls and spillways do not show signs of active erosion and are assessed to be long term stable.	Geotechnical review / report plan(s) prepared by a suitably qualified person.	
			Landform that is commensurate with surrounding natural landform including topography, relief patterns, and natural drainage.	Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan6.	Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan.	Geotechnical review / report plan(s) prepared by a suitably qualified person. Survey report.	
			Structures that take or divert water are appropriately licenced and ensure sufficient licence shares are held in the water source(s) to account for water take or captured/diverted water volumes are within the maximum harvestable rights for the property.	Maximum harvestable right dam capacity.	Surface water assessment shows retained dam capacity is within maximum harvestable right dam capacity based on the location and size of the landholding.	Relinquishment inspection and report, including photographs.	
			Runoff water quality from Mine Site meets the requirements of the development consent / EPL, does not present a risk of environmental harm, and is consistent with the regional catchment strategy.	Landform and retained water management structures are non-polluting.	Water quality meets the objective of Section 120 of the Protection of the Environment Operations Act 1997. 'Downstream' water quality monitoring records total suspended solids <50mg/L or within 10% of 'upstream' levels (whichever is the greater).	Water quality testing during discharge and/or annually at the farm dam following the cessation of mining operations.	
			Groundwater quality is consistent with historical groundwater monitoring from monitoring bore WB4 and in line with anticipated quality in the region.	Similarity of groundwater quality to pre-disturbance groundwater quality.	Groundwater monitoring results indicate similarity and acceptability of groundwater quality.	Groundwater quality testing at WB4 annually following the cessation of mining. Monitoring reported annually through annual reporting.	
Agricultural - Grazing	Other (Stockpiled Material)	B8	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.	Presence of infrastructure.	All relevant infrastructure removed.	Relinquishment inspection and report, including photographs.	
			Runoff water quality from mine site meets the requirements of the development consent / EPL, does not present a risk of environmental harm, and is consistent with the regional catchment strategy.	Landform and retained water management structures are non-polluting.	Water quality meets the objective of Section 120 of the Protection of the Environment Operations Act 1997. 'Downstream' water quality monitoring records total suspended solids <50mg/L or within 10% of 'upstream' levels (whichever is the greater).	Water quality testing during discharge and/or annually at the farm dam following the cessation of mining operations.	
			Revegetation is sustainable for the long term and only requires maintenance that is consistent with the intended final land use.	Growth medium depth.	Minimum growth medium depth of 150mm over domain.	Test pit results, including photographs, included in relinquishment report.	
				Vegetation species assemblage.	Rehabilitation monitoring confirms the species established are consistent with surrounding vegetation / analogue sites not disturbed by mining activities.		Inspection by a suitably qualified individual using Landscape Function Analysis, vegetation quadrats or similar.
				Weed species coverage.	Rehabilitation monitoring confirms the foliage cover of non-target species (weeds) is equivalent to surrounding vegetation / analogue sites not disturbed by mining activities.		
			Grazing by native, domestic and feral fauna not adversely impacting on ecosystem development.	Domestic grazing animals are excluded from the rehabilitation area during the ecosystem development phase, except where required for ecosystem development. Feral and native animal control programs implemented.			
Land use capability is capable of supporting the target agricultural land use.	Soil testing	Land and Soil Capability classification or Agricultural Land Classification criteria met.					

Table 10 (Cont'd)
Approved Rehabilitation Objectives and Rehabilitation Completion Criteria

Final Land Use Domain	Mining Domain	Spatial Ref. ²	Rehabilitation Objective	Indicator	Rehabilitation Completion Criteria	Validation Method
Agricultural – Grazing (Cont'd)	Other (Stockpiled Material) (Cont'd)	B8 (Cont'd)	There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.	Absence of residual waste.	No wastes exposed to the elements. All residual waste materials are appropriately contained as part of the final landform.	Relinquishment inspection and report, including photographs.
			Groundwater quality is consistent with historical groundwater monitoring from monitoring bore WB4 and in line with anticipated quality in the region.	Similarity of groundwater quality to pre-disturbance groundwater quality.	Groundwater monitoring results indicate similarity and acceptability of groundwater quality.	Groundwater quality testing at WB4 annually following the cessation of mining. Monitoring reported annually through annual reporting.
			The risk of bushfires at the site is commensurate with bushfire risks in adjacent areas.	Sparse vegetation (low hazard) within the asset protection zone (100m radius) surrounding infrastructure to be retained is appropriately managed.	Visual – native trees and shrubs retained as clumps cover no more than 20% of the asset protection zone Grazing is utilised to maintain low levels of groundcover and leaf litter build up.	Visual inspections. Photos upon relinquishment.
			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. Measured - survey of rehabilitated landform to specifically monitor settlement and/or material loss via erosion.	Visual- minimal erosion that would not require moderate to significant ongoing management and maintenance works. Visual - no areas of active gully or tunnel erosion	Before and after photos, rehabilitation monitoring reports, as constructed surveys, erosion surveys
			Landform that is commensurate with surrounding natural landform including topography, relief patterns, and natural drainage.	Measured - Survey of rehabilitated landform to verify final landform construction in accordance with Final Landform and Rehabilitation Plan6.	Survey verifies final landform complies with final landform construction in accordance with Final Landform and Rehabilitation Plan. 6	Geotechnical review / report plan(s) prepared by a suitably qualified person. Survey report.
Agricultural - Grazing	Infrastructure Area	B1	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.	Infrastructure not required for final land use removed.	All relevant infrastructure removed.	Relinquishment inspection and report, including photographs.
			Domain is free from hazardous materials and contaminants.	Absence of contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.	Contaminated land assessment indicates any contamination is acceptable for final land use.	Contamination report prepared by qualified person.
			Free draining, stable and non-polluting landform established.	All stockpiled material removed and used in rehabilitation activities and surface appropriately profiled. Landform suitable for growth medium development.	No pooling of water observed within landform. Landform established to integrate with the surrounding topography / agricultural land.	Relinquishment inspection and report, including photographs.
			Revegetation is sustainable for the long term and only requires maintenance that is consistent with the intended final land use.	Growth medium depth.	Minimum growth medium depth of 150mm over domain.	Test pit results, including photographs, included in relinquishment report.
				Pasture and native tree and shrub species established.	Rehabilitation monitoring confirms the species established are consistent with surrounding vegetation / analogue sites not disturbed by mining activities.	Inspection by a suitably qualified individual using Landscape Function Analysis, vegetation quadrats or similar.
				Weeds are not competing or impacting on rehabilitated area.	Rehabilitation monitoring confirms the foliage cover of non-target species (weeds) is equivalent to surrounding vegetation / analogue sites not disturbed by mining activities.	
				Grazing by native, domestic and feral fauna not adversely impacting on ecosystem development.	Domestic grazing animals are excluded from the rehabilitation area during the ecosystem development phase, except where required for ecosystem development. Feral and native animal control programs implemented.	
			Pasture and native tree and shrub species self-sustaining.	Revegetation monitoring reports confirm that vegetation diversity is consistent with analogue sites and that natural recruitment of Pasture, shrub and tree species is occurring.	Assessment report prepared by suitably qualified person.	
Coverage, Biomass and Landscape Function Analysis.	Average landscape coverage, estimates of biomass and analysis of stability, infiltration/runoff and nutrient cycling indices trending towards analogue site.					

Table 10 (Cont'd)
Approved Rehabilitation Objectives and Rehabilitation Completion Criteria

Final Land Use Domain	Mining Domain	Spatial Ref. ²	Rehabilitation Objective	Indicator	Rehabilitation Completion Criteria	Validation Method
Agricultural – Grazing (Cont'd)	Infrastructure Area (Cont'd)	B1 (Cont'd)	(Cont'd)	Weed species and abundance.	Revegetation monitoring confirms the foliage cover of non-target species (weeds) is equivalent to surrounding vegetation / analogue sites not disturbed by mining activities.	Weed inspection report (and subsequent control program, if required).
				Pest species and abundance.	Monitoring confirms that pest species and abundance is consistent with analogue sites.	Pest species inspection report (and subsequent control program, if required).
			Land use capability is capable of supporting the target agricultural land use.	Land capability.	Land capability of Class 6 in accordance with OEH (2012).	Assessment report prepared by suitably qualified person.
				Agricultural productivity.	Agricultural productivity trending towards analogue sites and consistent with Land Capability Class 6 established in OEH, 2012.	Agricultural production report prepared a suitable independent person.
			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.	Landforms are appropriately managed to ensure safety and stability in the long term.	Geotechnical assessment based on site specific review determines that the retained landform are long term stable and are not likely to actively erode to an extent requiring further earthworks.	Geotechnical review / report plan(s) prepared by a suitably qualified person included in relinquishment report. Visual inspection completed by site personnel. Relinquishment inspection and report, including photographs.
			Landform that is commensurate with surrounding natural landform including topography, relief patterns, and natural drainage.			
			The risk of bushfires at the site is commensurate with bushfire risks in adjacent areas.	All bushfire risks on site have been identified and removed where practicable.	Bushfire risks identified and removed.	Relinquishment inspection and report, including photographs.
				Sparse vegetation (low hazard) within the asset protection zone (100m radius) surrounding infrastructure to be retained is appropriately managed.	Visual – native trees and shrubs retained as clumps cover no more than 20% of the asset protection zone Grazing is utilised to maintain low levels of groundcover and leaf litter build up.	Visual inspections. Photos upon relinquishment.
Agricultural - Grazing	Active Mining Area	B5	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.	Infrastructure not required for final land use removed.	All relevant infrastructure removed.	Relinquishment inspection and report, including photographs.
			Domain is free from hazardous materials and contaminants.	Absence of contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.	Contaminated land assessment indicates contamination acceptable for final land use.	Contamination report prepared by qualified person.
			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.	Terminal walls appropriately profiled and stable.	Geotechnical assessment based on site specific review determines that the retained walls are long term stable and are not likely to actively erode or 'slip' to an extent requiring further earthworks.	Geotechnical review / report plan(s) prepared by a suitably qualified person included in relinquishment report.
				Construction of safety bunds around void perimeter.	Safety bunds constructed.	Visual inspection completed by site personnel. Relinquishment inspection and report, including photographs.
			Landform that is commensurate with surrounding natural landform including topography, relief patterns, and natural drainage.			
			Runoff water quality from Mine Site meets the requirements of the development consent / EPL and does not present a risk of environmental harm.	Landform and retained water management structures are non-polluting.	Water quality meets the objective of Section 120 of the Protection of the Environment Operations Act 1997. 'Downstream' water quality monitoring records total suspended solids <50mg/L or within 10% of 'upstream' levels (whichever is the greater).	Water quality testing during discharge and/or annually at the farm dam following the cessation of mining operations.
			Revegetation is sustainable for the long term and only requires maintenance that is consistent with the intended final land use.	Growth medium depth.	Minimum growth medium depth of 1m, incorporating approximately 150mm of soil and 850mm of "clay" overburden, spread over domain.	Test pit results, including photographs, included in relinquishment report.
				Pasture and native tree and shrub species established.	Rehabilitation monitoring confirms the species established are consistent with surrounding vegetation / analogue sites not disturbed by mining activities.	Inspection by a suitably qualified individual using Landscape Function Analysis, vegetation quadrats or similar.
	Weeds are not competing or impacting on rehabilitated area.	Rehabilitation monitoring confirms the foliage cover of non-target species (weeds) is equivalent to surrounding vegetation / analogue sites not disturbed by mining activities.				

Table 10 (Cont'd)
Approved Rehabilitation Objectives and Rehabilitation Completion Criteria

Final Land Use Domain	Mining Domain	Spatial Ref. ²	Rehabilitation Objective	Indicator	Rehabilitation Completion Criteria	Validation Method	
Agricultural – Grazing (Cont'd)	Active Mining Area (Cont'd)	B5 (Cont'd)	(Cont'd)	Grazing by native, domestic and feral fauna not adversely impacting on ecosystem development.	Domestic grazing animals are excluded from the rehabilitation area during the ecosystem development phase, except where required for ecosystem development. Feral and native animal control programs implemented.	Assessment report prepared by suitably qualified person.	
				Pasture and native tree and shrub species self-sustaining.	Revegetation monitoring reports confirm that vegetation diversity is consistent with analogue sites and that natural recruitment of Pasture, shrub and tree species is occurring.		
				Coverage, Biomass and Landscape Function Analysis.	Average landscape coverage, estimates of biomass and analysis of stability, infiltration/runoff and nutrient cycling indices trending towards analogue site.		
				Weed species and abundance.	Revegetation monitoring confirms the foliage cover of non-target species (weeds) is equivalent to surrounding vegetation / analogue sites not disturbed by mining activities.		Weed inspection report (and subsequent control program, if required).
				Pest species and abundance.	Monitoring confirms that pest species and abundance is consistent with analogue sites.		Pest species inspection report (and subsequent control program, if required).
			Land use capability is capable of supporting the target agricultural land use.	Land capability.	Land capability of Class 6 in accordance with OEH (2012).	Assessment report prepared by suitably qualified person.	
				Agricultural productivity.	Agricultural productivity trending towards analogue sites and consistent with Land Capability Class 6 established in OEH, 2012.	Agricultural production report prepared a suitable independent person.	
			Groundwater quality is consistent with historical groundwater monitoring from monitoring bore WB4 and in line with anticipated quality in the region.	Similarity of groundwater quality to pre-disturbance groundwater quality.	Groundwater monitoring results indicate similarity and acceptability of groundwater quality.	Groundwater quality testing at WB4 annually following the cessation of mining. Monitoring reported annually through annual reporting.	
			The risk of bushfires at the site is commensurate with bushfire risks in adjacent areas.	Sparse vegetation (low hazard) within the asset protection zone (100m radius) surrounding infrastructure to be retained is appropriately managed.	Visual – native trees and shrubs retained as clumps cover no more than 20% of the asset protection zone	Visual inspections. Photos upon relinquishment.	
					Grazing is utilised to maintain low levels of groundcover and leaf litter build up.		

4.3 Rehabilitation Objectives and Rehabilitation Completion Criteria – Stakeholder Consultation

Table 11 presents a summary of consultation undertaken with relevant stakeholders with regards to the rehabilitation objectives, rehabilitation completion criteria and proposed final land uses and landforms presented in this Plan. This table will be updated with each revision to this Plan to include details of further consultation with relevant and interested stakeholders.

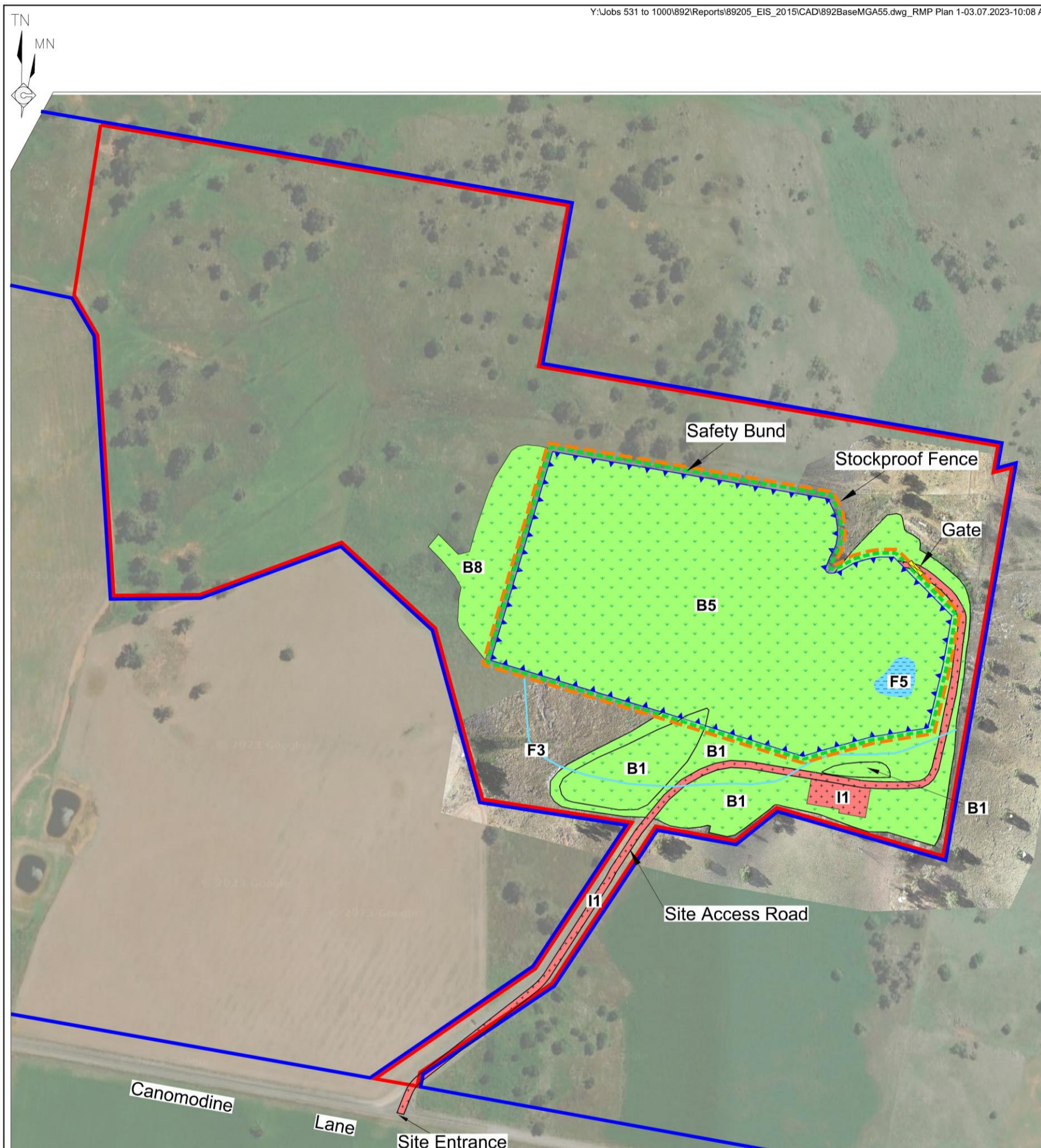
Table 11
Consultation Undertaken

Stakeholder	Consultation Activities
Orange Local Aboriginal Land Council	<ul style="list-style-type: none"> Form of Consultation: Letter (email transmission). Date: 11 May 2022. Matters Subject to Consultation: Rehabilitation Objectives and Rehabilitation Completion Criteria, and Final Land Use Domain Plans. Outcomes: No response received by 11 June 2022.
Cabonne Shire Council	<ul style="list-style-type: none"> Form of Consultation: Letter (email transmission). Date: 11 May 2022. Matters Subject to Consultation: Rehabilitation Objectives and Rehabilitation Completion Criteria, and Final Land Use Domain Plans. Outcomes: No response received by 11 June 2022.
Environmental Protection Authority (EPA)	<ul style="list-style-type: none"> Form of Consultation: Letter (email transmission). Date: 11 May 2022. Matters Subject to Consultation: Rehabilitation Objectives and Rehabilitation Completion Criteria, and Final Land Use Domain Plans. Outcomes: <ul style="list-style-type: none"> The EPA responded on 20 May 2022 Response: The EPA has reviewed the documents and have no specific comments to make.
Resources Regulator	<ul style="list-style-type: none"> Form of Consultation: Letter (email transmission). Date: 11 May 2022. Matters Subject to Consultation: Rehabilitation Objectives and Rehabilitation Completion Criteria, and Final Land Use Domain Plans. Outcomes: <ul style="list-style-type: none"> The Resources Regulator responded on 14 June 2022 Response: The Resources Regulator will review, assess and determine the rehabilitation objectives statement and rehabilitation completion criteria once submitted for approval.
Landholders: PR & CA Wythes	<ul style="list-style-type: none"> Form of Consultation: Letter (email transmission). Date: 11 May 2022. Matters Subject to Consultation: Rehabilitation Objectives and Rehabilitation Completion Criteria, and Final Land Use Domain Plans. Outcomes: <ul style="list-style-type: none"> Phillip Wythes responded on 22 June 2022 Response: Proposed amendments to the Rehabilitation Completion Criteria and more detailed referencing to address the objectives approved in DA 2016/128. Actions: Suggested amendments to the criteria have been made in red within Table 10. The objectives are more adequately addressed within the regulatory requirements in Section 2.1, which were not sent out for consultation.

5. Final Landform and Rehabilitation Plan

Plan 1 presents the final landform features for the Mine Site and **Plan 2** presents the final landform contours for the Mine Site.

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Final Land Use Domain	Mine Domain	Ref	Area (ha)
Agricultural - Grazing	Infrastructure	B1	4.3
Agricultural - Grazing	Active Mining Area	B5	12.2
Agricultural - Grazing	Other (Stockpiled Material)	B8	1.2
Water Management Area	Water Management Area	F3	0.1
Water Management Area	Active Mining Area	F5	0.2
Infrastructure	Infrastructure	I1	1.1

Mine Name	Canowindra Limestone Mine
Plan Name	Plan 1 Final Landform Features
Anticipated Year of Relinquishment	Current Development Consent - post 2043 Reserve capacity - post 2100
Date Plan Created	3 July 2023
Data Theme Submission ID Numbers	5188 & 5414

REFERENCE
— M(MO)L5 (Mine Site) Boundary
— ALA69

Final Land Use Domain
 B - Agricultural - Grazing
 F - Water Management Area
 I - Infrastructure Area

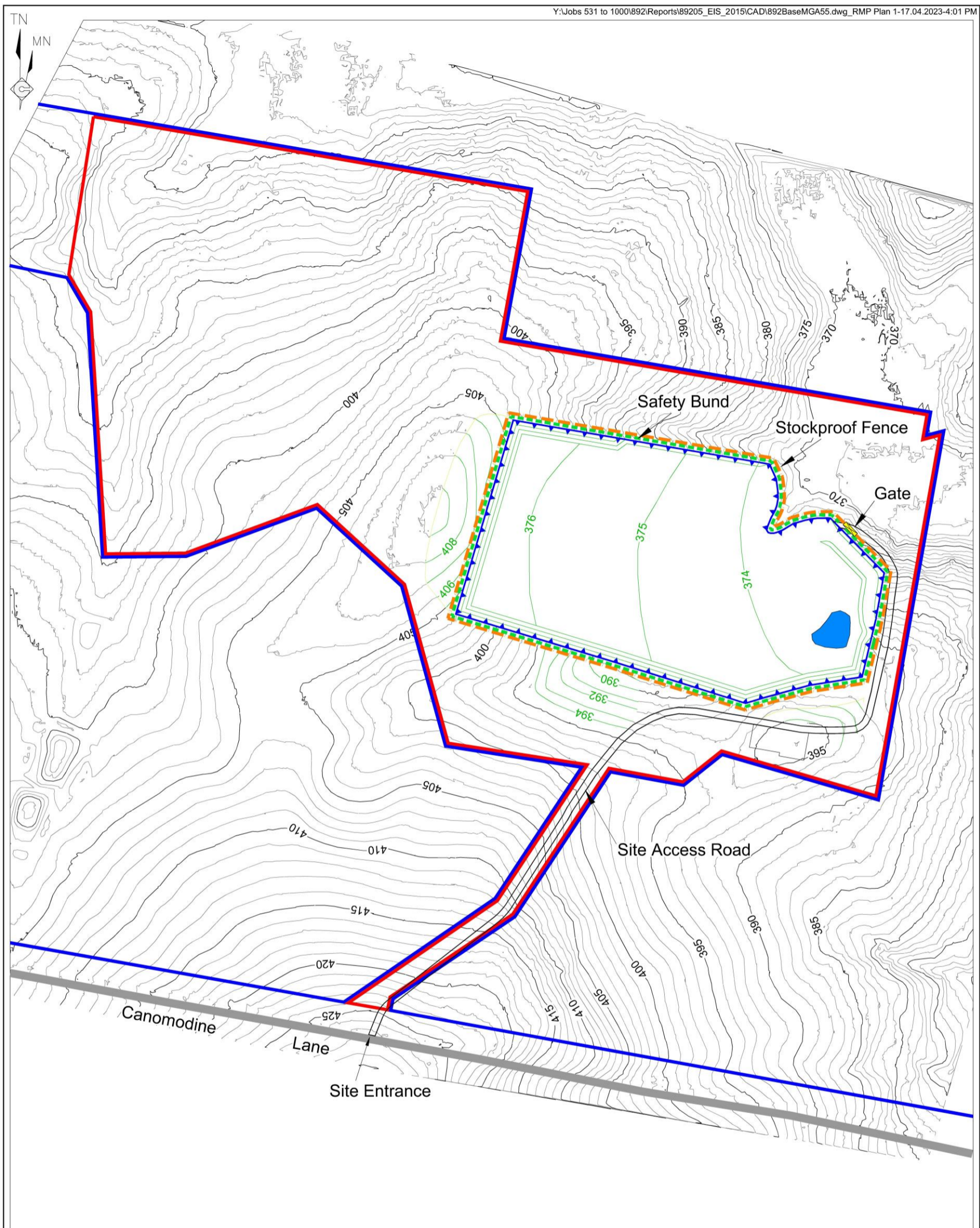
Final Landform Features
 Safety Bund
 Stockproof Fence
 Gate

SCALE 1:5 000 (A3)



Base Photo Source: Westlime - 9 April 2022 & Google Earth - 21 February 2021 (Surrounds)

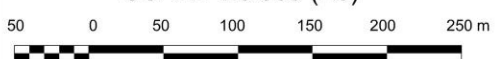
Plan 1
FINAL LANDFORM FEATURES



Mine Name	Canowindra Limestone Mine
Plan Name	Plan 2 Final Landform Contours
Anticipated Year of Relinquishment	Current Development Consent - post 2043 Reserve capacity - post 2100
Date Plan Created	17 April 2023
Data Theme Submission ID Numbers	2892,2893,2894,2895,2897,2898,3014,3015

- REFERENCE
- M(MO)L5 (Mine Site) Boundary
 - ALA69
 - 375 Existing Contour (mAHD)(Interval=1m)
 - Final Contour (mAHD)(Interval=1m)
 - + 375 Spot Height (mAHD)
 - Water Storage
 - - - Safety Bund
 - - - Stockproof Fence
 - ▭ Gate

SCALE 1:5 000 (A3)



Plan 2
FINAL LANDFORM CONTOURS

6. Rehabilitation Implementation

6.1 Life of Mine Rehabilitation Schedule

The proposed final landform will include the following (**Plan 2**).

- A largely free-draining, geotechnically stable, revegetated Extraction Area with a flat to gently east sloping floor. A safety bund and will be retained on the crest of the Extraction Area perimeter to prevent inadvertent access to the highwall. The Stage 1 Extraction Area may be internally draining depending on the volume of clay material that in encountered during the life of the Mine.
- A stock watering dam in the eastern section of the Extraction Area.
- All other areas will be returned to the pre-existing landform and all infrastructure will be removed.

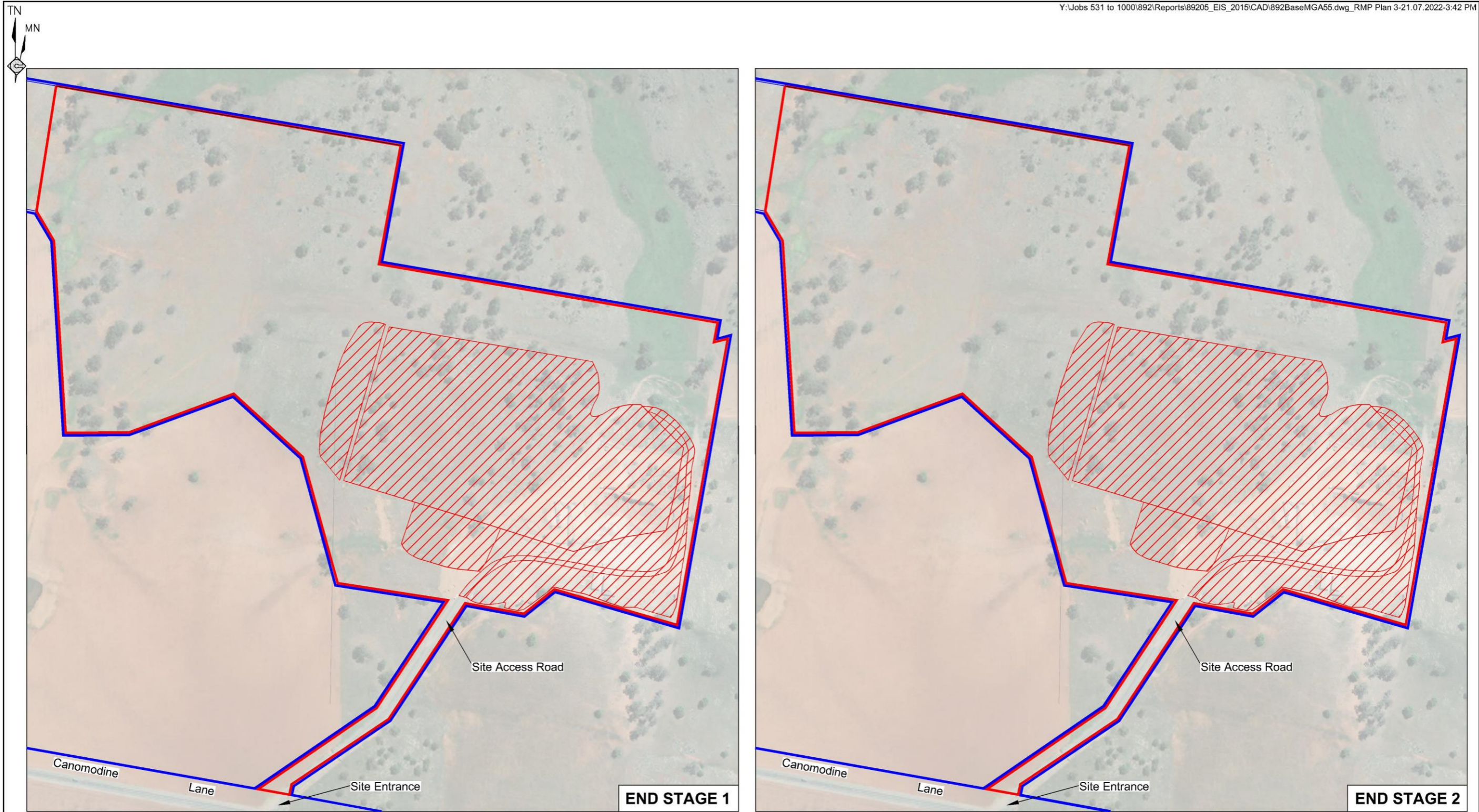
The final land use will be consistent with the previous land use, namely occasional grazing within a native vegetation community.

Prior to the cessation of mining operations, rehabilitation will only be undertaken in areas which are no longer required for operational purposes. As the extent of disturbance at the Mine is largely confined to operational areas required to support ongoing mining activities as well as storage areas for rehabilitation materials (i.e. topsoil stockpiles), opportunities for progressive rehabilitation prior to the completion of mining operations are limited.

Figure 7 depicts the current extent of disturbance at the Mine Site (i.e. the Mining Domains). **Plans 3** and **4** show the indicative rehabilitation schedule for the Mine Site consistent with the approved mining stages. The timing for progression from Stage 1 to Stage 2 and then Stage 3 has not been defined as mining progress is dependent on demand for limestone each year, which is ultimately contingent on climatic conditions and agricultural cycles.

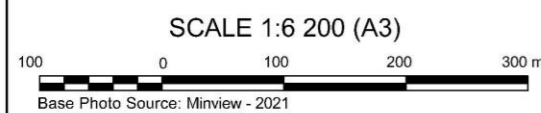
In summary, the rehabilitation schedule identifies that only a select section of the Extraction Area will be available for rehabilitation during Stage 3. Following the cessation of mining operations, all Mining Domains will be subject to the decommissioning, landform establishment, growth medium development and ecosystem and land use establishment rehabilitation phases as outlined in Section 6.2.

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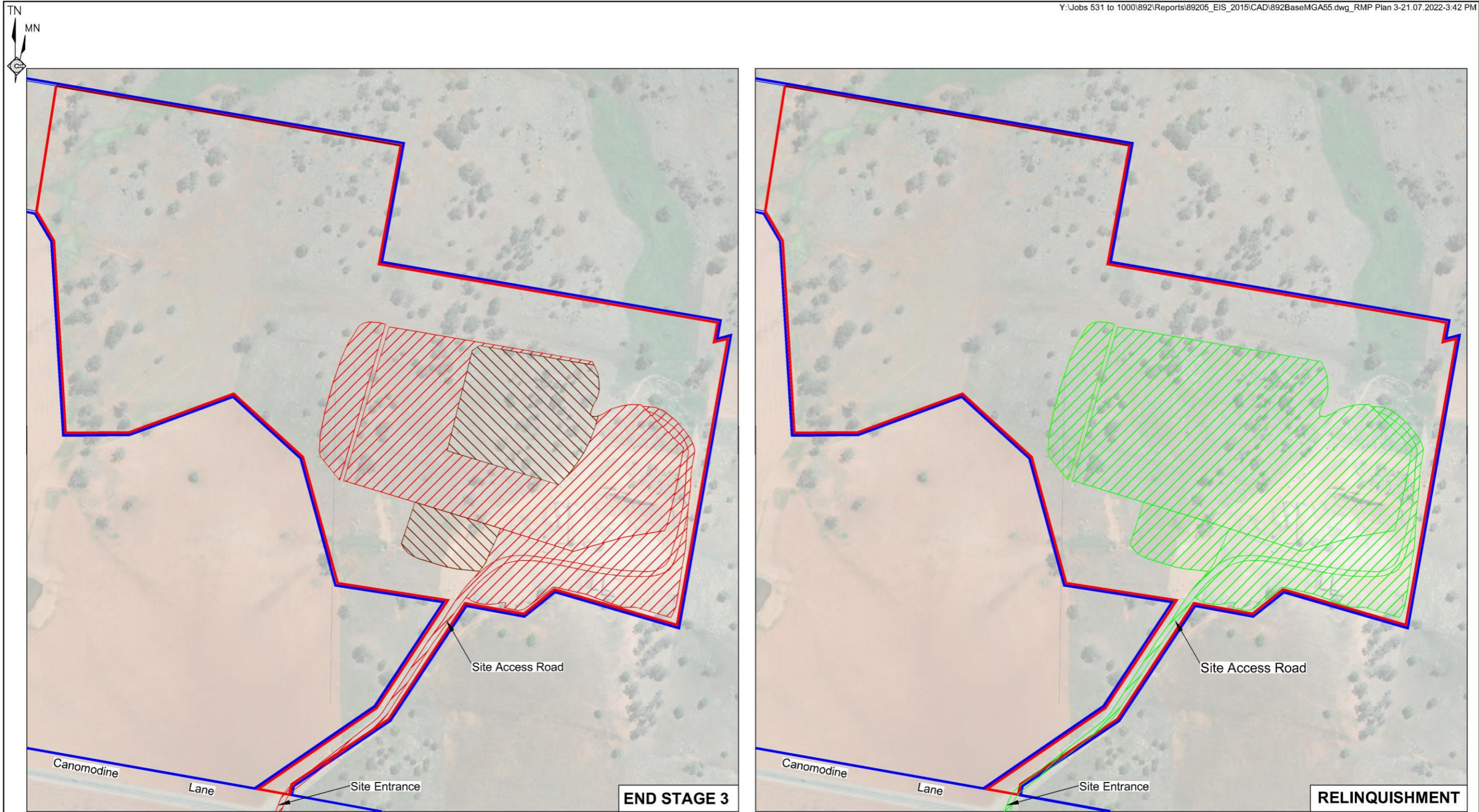
Mine Name	Canowindra Limestone Mine
Plan Name	Plan 3 Progressive Rehabilitation Schedule - Stages 1 and 2
Anticipated Year of Relinquishment	?
Date Plan Created	21 July 2022
Data Theme	XXXXXXXX
Submission ID Numbers	

- REFERENCE
- M(MO)L5 (Mine Site) Boundary
 - ALA69
- Rehabilitation Forecast**
- ▨ Forecast Disturbance
 - ▨ Forecast Land Prepared for Rehabilitation
 - ▨ Ecosystem and Land Use Establishment



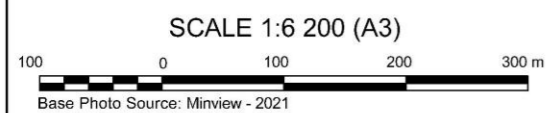
Plan 3
PROGRESSIVE REHABILITATION SCHEDULE
- STAGES 1 AND 2

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Mine Name	Canowindra Limestone Mine
Plan Name	Plan 4 Progressive Rehabilitation Schedule - Stage 3 and Relinquishment
Anticipated Year of Relinquishment	?
Date Plan Created	21 July 2022
Data Theme	XXXXXXX
Submission ID Numbers	XXXXXXX

- REFERENCE
- M(MO)L5 (Mine Site) Boundary
 - ALA69
- Rehabilitation Forecast
- Forecast Disturbance
 - Forecast Land Prepared for Rehabilitation
 - Ecosystem and Land Use Establishment



Plan 4
PROGRESSIVE REHABILITATION SCHEDULE
- STAGE 3 AND RELINQUISHMENT

6.2 Phases of Rehabilitation and General Methodologies

6.2.1 Active Mining Phase

6.2.1.1 Soils and Materials

During vegetation clearing operations, larger vegetation will be removed using a bulldozer with its blade positioned just above the surface. This material will be stockpiled adjacent to the approved Extraction Area for later use during rehabilitation. The Company may, in consultation with the relevant government agencies, make this material available to other for use in rehabilitation or regeneration operations elsewhere, including re-snagging of waterways or establishment of habitat for threatened species. No cleared vegetation material will be burnt or mulched.

Ground cover vegetation will be removed with the topsoil to maximise the retention of the seed bank and nutrients within the soil, as well as to minimise opportunities for erosion and dust lift-off between removal of the larger vegetation and soil stripping.

Soil resources within the Extraction Area are sparse due to extensive outcropping of limestone. As a result, the Company will selectively strip soil as a single layer from areas with a lower abundance of outcrop, with the resulting growth medium to incorporate soil and limited quantities of limestone.

The following growth medium stripping, stockpiling and management measures will be implemented.

- Undertake extraction of growth medium materials only during favourable conditions (i.e. not during excessively windy or wet conditions).
- Recover additional growth media from clay filled voids within the limestone during extraction operations consistent with current operations at the Company's Nelungaloo Limestone Mine.
- Stockpile the stripped growth medium within the approved stockpile locations or completed sections of the Extraction Area (**Figure 2**).
- Maintain an inventory of stockpiled growth medium and ensure that adequate growth medium is available throughout the life of the Mine to rehabilitate disturbed sections of the Mine Site.

A minimum of 30 000m³ of growth medium will be required at the end of the life of the Mine. The Company anticipates that adequate growth medium will be available for rehabilitation of the Mine Site.

6.2.1.2 Flora

OzArk (2016) identified three vegetation communities within the Mine Site as follows (Figure 6).

- LA217: White Box – Blakely's Red Gum – Box grassy woodland of the NSW South Western Slopes Bioregion (Benson 282) (Box Gum Woodland).
- LA138: Derived tussock grasslands of the central western plains and lower slopes of NSW (Benson 250).
- Disturbed and cropped land

OzArk (2016) notes that the LA217 may be classified as an Endangered Ecological Community (EEC) under the NSW *Threatened Species Conservation Act 1995* but not the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. A test of significance determined that the Plan was unlikely to have a significant impact on this EEC.

No threatened flora species have been identified within the Mine Site.

Three noxious weed species were observed within the Study Area as follows.

- Tree of Heaven (*Ailanthus altissima*).
- Sweet Briar (*Rosa rubiginosa*).
- Bathurst Burr (*Xanthium spinosum*).

Vegetation clearing within the Mine Site is approved under DA 2016/218.

A Biodiversity Offset Area of 55ha has since been identified by the landholder and Company and the required Biodiversity Offset Strategy has been approved and implemented. The Biodiversity Offset Strategy will compensate for the disturbance of the impacted vegetation communities and this process is detailed in Section 2.11 of the *EIS* (2016). The areas that are designated for Biodiversity Offset will be planted progressively throughout the rehabilitation stages with LA217 – White Box - Blakely's Red Gum – Yellow Box grassy woodland of the NSW South Western Slopes Bioregion and LA138 – Derived tussock grasslands of the central western plains and lower slopes of NSW, as well as disturbed cropped land.

The following vegetation management measures will be implemented.

- Larger vegetation will be removed using a bulldozer with its blade positioned just above the surface. This material will be stockpiled adjacent to the area of disturbance for later use during rehabilitation. The Company may, in consultation with the relevant government agencies, make this material available to others for use in rehabilitation or regeneration operations elsewhere, including re-snagging of waterways or establishment of habitat for threatened species. No cleared vegetation material will be burnt or mulched.
- Remove ground cover vegetation with the topsoil to maximise the retention of the seed bank and nutrients within the soil, as well as to minimise opportunities for erosion and dust lift-off between removal of the larger vegetation and soil stripping.

- Implement the approved Biodiversity Offset Strategy and ensure that the Biodiversity Offset Area is sustainably managed to maintain or improve the biodiversity values of the vegetation communities, in particular LA217.
- Ensure that all machinery required for operational activities remain on designated access tracks or within approved disturbance areas to minimise the spread of noxious weeds.
- Ensure that seed of species representative of vegetation community LA217 - Box Gum Woodland is harvested and used for rehabilitation operations, with harvesting operations to commence 3 years prior to Mine closure

6.2.1.3 Fauna

OzArk (2016) identified a total of 43 fauna species within the Mine Site, with 22 threatened fauna species listed under the *Threatened Species Conservation Act 1995* identified within or have the potential to occur within the Mine Site. Seven of these species are also listed in under the *Environmental Protection and Biodiversity Conservation Act 1999*. OzArk (2016) determined that the Mine is unlikely to have a significant impact on any of these threatened species.

A Biodiversity Offset Area of 55ha has been identified by the landholder and Company and the required Biodiversity Offset Strategy has been approved and implemented. Bird nesting boxes will be constructed within the area, and timber containing hollows that is cleared from the Mine Site will be relocated to the Offset Area as habitat.

OzArk (2016) assessed wildlife connectivity and determined that the Mine does not significantly impact any wildlife corridors or reduce habitat connectivity.

As a result, risks to fauna are considered to be low and no fauna-specific risk controls are required.

6.2.1.4 Rock/Overburden Emplacement

No waste rock or overburden will be produced by the Mine. All material not suitable for sale, primarily clay and void infill material, will be stored within the growth medium Stockpile Areas or Extraction Area and no waste rock emplacement is required.

As a result, risks from rock/overburden emplacements are considered to be negligible and no specific risk controls are required.

6.2.1.5 Waste Management

Table 12 presents an estimate of the non-production wastes that will be generated during the life of the Mine and briefly describes how each class of waste will be stored and subsequently removed from the Mine Site.

Table 12
Non-Production Waste Management

Waste Type	Storage/Management	Removal
General waste (including food scraps)	Covered bins or skips located within office and workshop areas as required. Where located in open areas, the bins will be fitted with animal-proof lids.	Collected on a regular basis by a licensed waste contractor and transported to a licensed waste disposal/recycling facility.
General recyclables		
Waste oils and greases	Placed within bunded tank(s) 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 a larger storage tank prior to collection.	Collected on a regular basis by a licensed waste contractor and transported to an appropriately licensed facility for recycling.
Contaminated soils	In the event soils are contaminated with hydrocarbons or chemicals that will be immediately collected and removed from the Mine Site to a licenced waste facility	
Batteries	Used batteries will be placed within a covered and marked used battery storage area until removed from site.	Used batteries will be collected on a regular basis by an appropriate contractor and recycled.
Tyres	Tyres will be placed within a marked used tyre storage area until removed from site or used for another purpose.	Collected on a regular basis by a licensed waste contractor and transported to a licensed waste disposal facility.
Scrap steel/metal	Stored in a specified areas within the workshop area or elsewhere as required.	Collected on a regular basis by a scrap metal recycler.
Waste water	Waste water will be treated using a Council-approved waste water treatment facility, with treated water used to irrigate pasture within the Project Site.	

6.2.1.6 Geology and Geochemistry

Material extracted within the Mine Site comprised the following.

- Limestone – which is crushed, screened, ground and used to produce agricultural lime.
- Clay infill material within voids in the limestone – this material is non-dispersive and will be retained as a growth medium for rehabilitation operations. Excess clay material will be blended into select products or sold as a growth medium.

There are no geological or geochemistry-related risks relevant associated with the above materials. As a result, geology- or geochemistry-related risks from rock/overburden emplacements are considered to be negligible and no specific risk controls are required.

6.2.1.7 Materials Prone to Spontaneous Combustion

As no material within the Mine Site is prone to spontaneous combustion, no management measures related to spontaneous combustion are required.

6.2.1.8 Material Prone to Generating Acid Mine Drainage

As no material within the Mine Site is prone to generating acid mine drainage, no management measures related to acid mine drainage are required.

6.2.1.9 Ore Beneficiation Waste Management (reject and tailings disposal)

As processing of limestone within the Mine Site generates no waste materials, no management measures related to rejects or tailings are required.

6.2.1.10 Erosion and Sediment Control

Erosion and sediment controls to be implemented at the Mine Site are described in detail in the *Erosion and Sediment Control Plan (2017 to 2024)* (RWC, 2017). In summary, erosion and sediment control structures will be constructed in accordance with the requirements of Landcom (2004) and Volumes 2C and 2E DECC (2008) prior to the commencement of extraction operations.

The *Erosion and Sediment Control Plan* will continue to be updated throughout the life of the Mine, including during mine closure and rehabilitation, in accordance with the guidelines applicable at the time.

Notwithstanding this, the principal area to be rehabilitated, namely the floor of the Extraction Area, will be largely flat and the materials to be used during rehabilitation are non-dispersive. As a result, given the implementation of these plans, risks associated with sediment and erosion control will be adequately managed.

6.2.1.11 Ongoing Management of Biological Resources for Use in Rehabilitation

The following management measures will be implemented to manage biological resources within the Mine Site.

- Construct topsoil stockpiles no more than 2m high, with side slopes no more than 1:3 (V:H) and stabilised immediately with suitable pasture grasses.
- Ensure that topsoil and other growth medium stockpiles are separated and appropriately signposted.
- Prevent vehicles from driving on growth medium stockpiles to limit compaction.
- Manage weeds on the stockpiles to minimise the potential for build-up of a weed seed bank on the stockpile.
- Ensure that between 0.75m and 1.0m of rooting depth is provided across the floor of the Extraction Area to be rehabilitated. This may be achieved through the spreading of growth medium to the full depth required or through a combination of growth medium and broken rock. A minimum of 25cm of growth medium will be spread across all areas to be rehabilitated.

- Ensure that seed of species representative of vegetation community LA217 - Box Gum Woodland is harvested and used for rehabilitation operations, with harvesting operations to commence 3 years prior to Mine closure.

6.2.1.12 Mine Subsidence

No risks to rehabilitation associated with mine subsidence are present and no management measures related subsidence are required.

6.2.1.13 Management of Potential Cultural and Heritage Issues

Aboriginal Heritage

OzArk (2015) identified one Aboriginal object in the vicinity of the Mine Site, an isolated artefact referenced as Cargo-IF1 (**Figure 2**). That object is located outside the area of M(M)L5 and is separated from Mine-related disturbance by a fence. The Company will ensure that the unanticipated finds protocol presented in Appendix 3 of OzArk (2015) is implemented throughout the life of the Mine.

As no Aboriginal objects will be disturbed by the Mine, including during rehabilitation operations, no management measures other than those identified above are required.

Historic Heritage

No items of historic heritage significance occur within the Mine Site and no management measures related to historic heritage are required.

6.2.1.14 Exploration Activities

All exploration activities have been fully rehabilitated and no further exploration outside approved areas of disturbance are proposed.

6.2.2 Decommissioning

Decommissioning will include the cessation of infrastructure usage, disconnection of remaining services, demolition and removal of plant and buildings from the Mine Site. Remediation of any contamination will also be undertaken during this phase.

6.2.2.1 Site Security

Existing site security measures will be maintained during decommissioning and active rehabilitation operations. The Company will maintain lockable security gates at the intersection of the Site Access Road and Canomodine Lane.

A safety bund will be retained on the crest of the Extraction Area and a stock-proof fence will be constructed around the void perimeter to prevent inadvertent access to the highwall.

6.2.2.2 Infrastructure to be Removed or Demolished

At the completion of extraction and processing activities, the Company will demolish and remove from site the following infrastructure unless there is a lawful final use for the infrastructure and retention is approved by the landholder.

- All processing infrastructure, including ancillary equipment.
- All buildings, including the office, crib room, ablutions and workshop.
- The weighbridge.
- The waste water treatment facility.
- The fuel store and oil/water separator.

All concrete footings and foundations of buildings or structures will be broken up and removed or covered. Materials used to form roads and hardstands will be removed and/or the areas ripped.

The rehabilitation methods and procedures to be employed during infrastructure decommissioning will include the following.

- Buildings will be inspected by a suitably qualified or experienced person and all identified asbestos or other hazardous material removed from the Mine Site.
- Demolish all buildings in accordance with the relevant standard applicable at the time.
- Recycle demolition material such as corrugated iron and other metal where practicable.

6.2.2.3 Buildings, Structures and Fixed Plant to be Retained

Infrastructure that will remain for ongoing land management purposes, with landholder approval, will include the following.

- Water supply infrastructure, including the proposed bore and pipeline.
- Sediment basin which will be converted to a stock watering dam.
- Site Access Road, reduced in width to that require for ongoing light vehicle access.
- Stock proof fencing and safety bunds to ensure that access to final void areas remains effectively restricted.

6.2.2.4 Management of Carbonaceous/Contaminated Material

No known contaminated land is present within the Mine Site. A contamination assessment will be undertaken by a suitably qualified or experienced person and any contaminated material excavated and transferred to a licensed facility.

No carbonaceous material exists within the Mine Site.

6.2.2.5 Hazardous Materials Management

All hydrocarbons will be stored in banded areas or on banded pallets and will be removed at the end of the life of the Mine. No other hazardous materials will be stored or used within the Mine Site.

6.2.2.6 Underground Infrastructure

No underground mining will be undertaken and no specific risk controls are required.

6.2.3 Landform Establishment

Plan 2 presents the final landform contours for the Mine. In summary, the final landform will include the following.

- A free-draining revegetated Extraction Area with a flat to gently east sloping floor and benches 15m in height. A safety bund will be retained on crest of the Extraction Area and a stock proof fence will be constructed to prevent inadvertent access to the highwall.
- A stock watering dam with stabilised spillway.
- All other areas will be returned to the pre-existing landform.

6.2.3.1 Water Management Infrastructure

Water management infrastructure to be retained for the final landform will include the following.

- A clean water diversion to divert water to the south of the Extraction Area.
- A stock watering dam within the Extraction Area.

The following measures will be implemented to ensure that the retained water management infrastructure will be fit-for-purpose and appropriately licenced.

- A suitably qualified or experienced person will be engaged to assess the stability of the clean water diversion and remedial actions will be implemented as required.
- A suitably qualified or experienced person will be engaged to undertake a geotechnical assessment of the sediment basin/stock watering dam to ensure that the structure, including the spillway, is long-term stable.
- The capacity of the sediment basin/stock watering dam will be determined and will be compared with the harvestable right for the property. If required, the volume of the structure will be reduced to ensure that it does not require a licence under the *Water Management Act 2000*.

6.2.3.2 Final Landform Construction

General Requirements

The approved final landform will include the following (**Plan 2**).

- A free-draining revegetated Extraction Area with a flat to gently east sloping floor and benches up to 15m in height. A safety bund will be retained on the crest of the Extraction Area and a stock proof fence will be constructed to prevent inadvertent access to the highwall.
- A stock watering dam with stabilised spillway.
- All other areas will be returned to the pre-existing landform.

The design criteria for the terminal faces of the final void will be determined during mining operations, with faces of 75° from the horizontal conservatively assumed. The long-term stability of the final void will be assessed by a suitably qualified person who will prepare a geotechnical assessment for inclusion in a relinquishment report.

The final void is not visible from publicly accessible locations and, as a result, characteristics of surrounding landforms have not been incorporated into the approved final landform design.

Finally, the final landform will, with the exception of a Stock Watering Dam, be free draining and will incorporate a clean water diversion. As a result, the final landform will not be adversely impacted by surface water flows.

Reject Emplacement Areas and Tailings Dams

No reject emplacement area or tailings dam is approved for the Mine.

Final Voids, Highwalls and Low Walls

The approved final void includes the following (**Plan 2**).

- A free-draining revegetated Extraction Area approximately 12.3ha in size
- A flat to gently east sloping floor with an elevation that varies from 376m AHD in the western section to 374m AHD in the eastern section.
- Bench heights of up to 15m in height.
- A Stock Watering Dam in the eastern section of the Extraction Area.
- A safety bund and stock proof fence around the crest of the Extraction Area to prevent inadvertent access to the highwall.

The final Extraction Area will not intersect groundwater and, with the exception of a Stock Watering Dam, will be free draining. The volume of the Stock Watering Dam, together with other farm dams on the wider landholding, will be less than the harvestable right for the property. As a result, no licences or approvals under the *Water Management Act 2000* will be required.

6.2.3.3 Construction of Creek/River Diversion Works

No creek or river diversion works will be required.

6.2.4 Growth Medium Development

The growth medium development phase involves the establishment and maintenance of growth medium on the completed landform.

As identified in Section 6.2.1.1, topsoil will be selectively striped from areas with a lower abundance of outcrop, with the resulting growth medium to incorporate soil and limited quantities of limestone. Additional growth media will be recovered from clay filled voids within the limestone during extraction operations consistent with current operations at the Company's Nelungaloo Limestone Mine. A minimum of 30,000m³ of growth medium will be required for rehabilitation of the Mine Site.

The following procedures will be implemented in the 3 years prior to the commencement of the growth medium development phase.

- Confirm the volume of growth medium stockpiled within the Mine Site and implement procedures to salvage infill clay from limestone voids to ensure that the minimum required volume is available.
- Engage a suitably experienced or qualified person to assess the condition of the growth medium and provide recommendations in relation to ameliorants required.
- Establish one or more trial rehabilitation sites to test preferred rehabilitation methodologies and determine the preferred methodology.

The following procedures will be implemented during growth medium development.

- Undertake growth medium development in late summer to mid-autumn.
- Prepare the area to be rehabilitated as follows.
 - Within the Extraction Area – deep rip or maintain a minimum depth of fractured rock to permit root development and moisture retention.
 - Within other areas – remove hardstand material and deep rip the area to be rehabilitated.
- Spread a minimum of 25cm of growth medium across the area to be rehabilitated. Within the Extraction Area, ensure that between 0.75m and 1.0m of material suitable for root development is maintained. This may comprise 25cm of growth medium and 50cm to 75cm of broken limestone or the full depth of growth medium.
- Apply required ameliorants as recommended.

6.2.5 Ecosystem and Land Use Establishment

The ecosystem and land use establishment phase involves the establishment and maintenance of vegetation on the completed landform.

The approved final land use will be agriculture – grazing within a native vegetation community with a land capability of Class 6 or Low capability land suitable for a limited set of land uses. As a result, the approved final vegetation communities will comprise native tree, shrub and grass species comparable with the surrounding Box Gum Woodland.

The following procedures will be implemented in the 3 years prior to the commencement of the ecosystem and land use establishment phase.

- Collect and store seed of local provenance of species representative of the surrounding Box Gum Woodland (**Table 13**).
- Propagate or source selected species to generate an adequate supply of tube stock for use in rehabilitation operations.

The following procedures will be implemented during ecosystem and land use establishment.

- Lightly scarify and mechanically seed the area to be rehabilitated with grass/pasture species as directed by the landholder.
- Direct seed and plant tube stock of the species identified in **Table 13** around the perimeter of the floor of the Extraction Area and elsewhere as directed by the landholder.
- Exclude stock and feral herbivores until the vegetation community has become sufficiently established.
- Undertake weed management programs as required.

Table 13
Rehabilitation Tree Species

Species		
Common name	Scientific name	Location
White Box	<i>Eucalyptus albens</i>	Hilltops, slopes and undulating plains
Fuzzy Box	<i>Eucalyptus conica</i>	Flat landscapes and near creeks
Inland Grey Box	<i>Eucalyptus microcarpa</i>	Undulating low hills
Tumbledown Red Gum	<i>Eucalyptus dealbata</i>	Undulating low hills, lower slopes and alluvial plains
Yellow Box	<i>Eucalyptus melliodora</i>	Undulating plains, slopes or hills
Blakely's Red Gum	<i>Eucalyptus blakelyi</i>	Undulating plains, slopes or hills
Poplar Box	<i>Eucalyptus populnea ssp. bimbil</i>	Undulating plains, slopes or hills
Kurrajong	<i>Brachychiton populneus ssp. populneus</i>	Lower slopes and alluvial plains
Rough-Barked apple	<i>Angophora floribunda</i>	Undulating plains, slopes or hills

6.2.6 Ecosystem and Land Use Development

The ecosystem and land use sustainability phase occurs once monitoring illustrates the achievement of relevant performance indicators with respect to ecosystem development and the stability and function of built structures such as the final open void or water management structures. Areas of the landform may remain within this phase for extended periods whilst progress is made towards achieving completion criteria.

6.2.6.1 Weed and Pest Management and Monitoring

The following procedures will be implemented to manage and monitor weeds and pests within the rehabilitated area.

- Regular weed and pest inspections, with control programs to be implemented if required.
- Regular vegetation monitoring by a suitably qualified agronomist or ecologist to ensure that the vegetation community becoming established on the rehabilitated landform will be suitable for occasional grazing operations and will generally be consistent with surrounding vegetation communities.

6.2.6.2 Environmental Management and Monitoring Program

Surface Water

Visual inspections of erosion and drainage control structures will be undertaken following significant rainfall events.

Groundwater

Groundwater levels will continue to be monitored within monitoring bore WB4 and the volume pumped from production bore WB3 will continue to be monitored, with the results presented in the Annual Rehabilitation Report.

Ecology

Following the establishment of the identified vegetation community, the Company will undertake the following ecosystem development and monitoring activities.

- Annual weed and pest inspections, with control programs to be implemented if required.
- Annual vegetation monitoring by a suitably qualified agronomist or ecologist to ensure that the vegetation community will be suitable for occasional grazing operations and will generally be consistent with surrounding vegetation communities.

Land Capability

The following procedures will be implemented to manage and monitor land capability within the rehabilitated area.

- The rehabilitated area will be fenced to exclude stock and control grazing.
- Grazing trials, including maintenance of records related to agricultural productivity, will be undertaken in consultation with the landholder to determine the capability of the rehabilitated landform to withstand grazing pressures.
- The rehabilitated landform and the results of the grazing trials will be presented to a suitably experienced and qualified person to determine the Land Capability of the landform and progression towards achieving the nominated Class 6 Land Capability in accordance with OEH (2012).

6.2.6.3 Revegetation

Vegetation establishment activities within the Mine Site, including growth medium spreading and seeding operations, will occur only where favourable climatic conditions are expected to occur. Consequently, prolonged drought periods may result in extended delays to these rehabilitation conditions. Should extended drought periods occur at the Mine Site, rehabilitation schedules will be updated to prioritise other rehabilitation activities and opportunities to prepare additional areas for revegetation once favourable conditions return will be investigated.

Seed to be used for revegetation activities will be sourced from within the Mine Site or obtained from a local, reputable nursery or seed wholesaler and until required will be stored off the Mine Site in a cool, dry place (preferably the source nursery or wholesaler).

The following revegetation measures will be implemented in the event that monitoring identifies that ecosystem and land use development is not progressing towards the nominated completion criteria.

- The advice of a suitably qualified rehabilitation expert or agronomist would be sought and recommended actions would be implemented as required. This may include revegetation of sections of the rehabilitated area when the initial ecosystem establishment operations have not been successful.
- Monitoring and grazing trials would continue until compliance with the completion criteria has been achieved.

The results of rehabilitation monitoring, as well as records of rehabilitation activities will be included in the Annual Rehabilitation Report.

6.2.6.4 Land Management and Infrastructure Maintenance

Site infrastructure including roads, security and stock-proof fencing, safety bunds and signage will be inspected on an annual basis. Additionally, infrastructure vulnerable to erosion, namely unsealed roads and diversion drains, will be inspected following significant rainfall events.

The results of infrastructure inspections as well as records of annual infrastructure maintenance activities and costs will be included as part of an Annual Rehabilitation Report until relinquishment.

6.3 Rehabilitation of Areas Affected by Subsidence

There is no subsidence present or expected to occur and no subsidence-related management and maintenance programs are required.

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.

Appendix 2 presents the risk control checklist based on Guideline 3 applicable to the remaining active mining and planned rehabilitation phases 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 occur in accordance with the rehabilitation schedule identified on **Plans 3** and **4**.

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 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 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 14 outlines key responsibilities for the Company and Mine personnel with regards to rehabilitation operations.

Table 14
Key Roles and Responsibilities

Role	Responsibility
Mine Manager	<ul style="list-style-type: none"> 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. Ensure that the Rehabilitation Quality Assurance register is maintained and up to date based on site activities. Ensure that the workforce is 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 and Appendix 2 is implemented as required. Ensure that the documentation and recording of rehabilitation risk controls occurs within a suitable timeframe Ensure that specialist contractors adhere to the guidelines and methodologies outlined in this Plan where required, or that the guidelines and methodologies in this Plan are updated to reflect those employed at the Mine Site.
All Mine Personnel	<ul style="list-style-type: none"> Follow direction provided by the Mine Manager. Notify the Mine Manager in the event that uncontrolled rehabilitation risks are identified at the Mine.

8. Rehabilitation Monitoring Program

8.1 Analogue Site Baseline Monitoring

OzArk (2016) undertook an assessment of the vegetation within the Mine Site. Sections 6.2.1.2 and 6.2.1.3 present a brief overview of that assessment which provides a baseline/pre-mining condition for the Mine.

Two indicative analogue sites have been identified within undisturbed sections of the Mine Site as follows (**Figure 6**).

- Analogue Site 1 – representative of LA138 – Derived Grasslands.
- Analogue Site 2 – representative of LA217 – Box Gum Woodland.

These sites have been selected to be representative of the two end-member vegetation communities proposed for the final landform.

Annual monitoring of these analogue sites would commence 3 years prior to the commencement of rehabilitation operations and would continue until the compliance criteria in **Table 10** have been achieved.

8.2 Rehabilitation Establishment Monitoring

Rehabilitation establishment monitoring will commence following the commencement of rehabilitation activities, indicatively during Stage 3 of the Mine and will involve inspections of each progressive phase, and will consist of the following.

- Photo monitoring of rehabilitated areas, including prior landform establishment, growth medium development, revegetation, immediately following revegetation and regularly (initially quarterly then annually) after revegetation.
- Visual inspections and documentation 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.

These recommendations would be implemented as soon as reasonably practicable, and the above steps would be repeated until the nominated rehabilitation criteria have been achieved.

8.3 Measuring Performance against Rehabilitation Objectives and Rehabilitation Completion Criteria

Measuring performance against rehabilitation objectives and rehabilitation completion criteria will commence following the commencement of rehabilitation activities, indicatively during Stage 3 of the Mine. **Table 10** presents the rehabilitation objectives and rehabilitation completion criteria for the mine and identifies the validation method for each.

Detailed validation methods to be employed to measure performance against the rehabilitation completion criteria will be developed 3 years prior to the commencement of rehabilitation operations. In summary, however, the Annual Rehabilitation Reports will form the foundation of long-term rehabilitation monitoring at the Mine Site. In addition, 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.

9. Rehabilitation Research and Trials

9.1 Current Rehabilitation Research and Trials

Given the fact that rehabilitation operations are not expected to commence until Stage 3 of the Mine, no rehabilitation research or rehabilitation trials are currently being undertaken within the Mine Site.

9.2 Future Rehabilitation Research and Trials

Rehabilitation research and trials will commence 3 years prior to the commencement of rehabilitation operations. Indicatively, this will include trials to confirm the optimal:

- substrate and growth medium depth and treatment;
- revegetation species and methodologies.

The results of the rehabilitation research and trials will be presented in the Annual Rehabilitation Report for the Mine.

In addition to the above and as outlined in Section 6.2.6, grazing trials will be undertaken to manage and monitor land capability within rehabilitated areas where grazing is the intended final land use. Grazing trials, including maintenance of records related to agricultural productivity, will be undertaken in consultation with the landholder to determine the capability of the rehabilitated landform to withstand grazing pressures. The results of the grazing trials will be presented to a suitably experienced and qualified person to determine the Land Capability of the landform and progression towards achieving the nominated Class 6 Land Capability in accordance with OEH (2012).

10. Intervention and Adaptive Management

Table 15 presents the Trigger Action Response Plan for each of the rehabilitation threats and potential adverse outcomes identified in **Table 8** as having a risk rating of moderate or above.

The results of rehabilitation monitoring assessments, including the development of procedures to be implemented during rehabilitation operations as outlined in Section 9, will be continually reviewed and reported in the Annual Rehabilitation Report for the Mine. Where rehabilitation monitoring assessment outcomes suggest that rehabilitation methods outlined in this Plan may not support the realisation of rehabilitation completion criteria, this Plan will be updated to detail additional or alternative rehabilitation methods as required. Additionally, where the development of procedures or plans described in Section 9 is completed, this Plan will be updated to reflect specific management implications for individual areas of the Mine Site and/or target values associated with rehabilitation completion criteria.

Table 15
Trigger Action Response Plan

Rehabilitation Threat	Potential Adverse Outcome	Trigger	Action/ Response
Unstable landform due to mass movement issues	Final landform is unstable or a source of pollution or final land use is unable to be achieved	Evidence of geotechnical instability in operational or terminal faces Evidence of erosion of the final faces	<ul style="list-style-type: none"> Engage a suitably qualified and experienced geotechnical engineer or similar to assess the stability of the Extraction Area faces and provide recommendations in relation to Extraction Area design and/or stabilisation of the affected areas. Implement recommended actions.
Weed or pest management fails.	Weeds and pests become established and require significant resources to manage.	Rehabilitation monitoring identifies that weed species are substantially more abundant on the final landform than undisturbed analogue sites. Rehabilitation monitoring identifies significant numbers of exotic fauna, such that vegetation establishment or ecosystem sustainability is threatened.	<ul style="list-style-type: none"> Undertake, in consultation with surrounding neighbours, an immediate program of weed or pest control consistent with current management practices. Review success of control program within 6 months. If weed or pest management is not successful engage a suitably qualified ecologist to assess reasons for failure of management measures and recommend additional measures. Implement the recommended actions.
Adverse weather and climatic influences	Vegetation does not become established on final landform or fails to achieve the relevant completion criteria.	Vegetation does not become established fails to achieve the relevant completion criteria on final landform due to adverse weather and climatic influences.	<ul style="list-style-type: none"> Engage a suitably qualified ecologist or revegetation expert to assess reasons for failure of revegetation and recommend actions to ensure that the final vegetation community corresponds as closely as possible to analogue sites. Implement the recommended actions.

11. Review and Implementation

Table 16 presents the triggers for reviewing the 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 16
Rehabilitation Management Plan Review Triggers

Trigger	Review
Request from the Resources Regulator or other relevant government agency to review the Plan.	As required by any notice
Approval of or amendment to a Rehabilitation Outcome Document.	Within 30 days.
Preparation of a revised Rehabilitation Risk Assessment.	Within 30 days.
Modification of an existing development consent.	Within 3 months
Submission of each Annual Rehabilitation Report and Forward Schedule.	Within 1 month
Completion of a rehabilitation trial.	Within 1 month
Receipt of a specialist consultant report prepared in response to a trigger outlined in Section 10.	Within 3 months

In addition to reviews of this Plan, 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 and requirements under relevant development consents, leases and licences. Additionally, the Rehabilitation Quality Assurance Register will include:

- records of any contaminated water or hazardous materials collected at the Mine Site and disposed of off site;
- the latest map of any contamination at the Mine Site; and
- details of any additional rehabilitation measures and/or risk controls implemented within individual subdomains during rehabilitation operations.

12. References

Department of Environment, Climate Change and Water (DECCW) (2008). *Managing Urban Stormwater: Soils and construction - Volume 2C.*

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