Escott Zeolite Mine

Rehabilitation Management Plan

Zeolite Australia Pty Ltd

234 Escott Road, Werris Creek NSW 2341

Prepared by:

SLR Consulting Australia

10 Kings Road, New Lambton NSW 2305,
Australia

SLR Project No.: 630.30206.00200

7 November 2025

Revision: 07

Summary Table

Summary Table	
Name of Mine	Escott Zeolite Mine
Rehabilitation Management Plan Commencement Date	July 2022
Rehabilitation management plan revision dates and version numbers	Refer to Revision Record
Mining Authorisations (Lease / Licence No.)	ML1356 AMA1012
Name of Authorisation holder(s)	Zeolite Australia Pty Ltd
Date of Submission	September 2025
Version	7: RMP Updated following approval of the ROBJs and FLRP (incorporating AMA 1012), dated 10 October 2025

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
630.30206-Zeolite RMP_V7	**07 November 2025**	**Stephen Shoesmith**	**Andrew O'Brien**	**Stephen Shoesmith**
630.30206-Zeolite RMP_V6	30 September 2025	Stephen Shoesmith	Andrew O'Brien	Stephen Shoesmith
630.30206-Zeolite RMP_V5	24 September 2024	Stephen Shoesmith	Andrew O'Brien	Stephen Shoesmith
630.30206-Zeolite RMP_V4	5 December 2023	Stephen Shoesmith	Andrew O'Brien	Stephen Shoesmith
630.30206-Zeolite RMP_V3	18 August 2023	Sam McDonald	Stephen Shoesmith	Stephen Shoesmith
630.30206-Zeolite RMP_V2	13 March 2023	Sam McDonald	Stephen Shoesmith	Stephen Shoesmith
630.30206-Zeolite RMP_V1	19 August 2022	Joel Cook	Reine Byrne	Stephen Shoesmith

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Zeolite Australia Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

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Acronyms and Abbreviations

AL	Assessment Lease
AMA	Ancillary Mining Activities
AMD	Acid Mine Drainage
bcm	Bank Cubic Metre
Council	Liverpool Plains Shire Council
DA	Development Application
EEC	Endangered ecological communities
EIS	Environmental Impact Statement
EL	Exploration Licence
EPA	Environment Protection Authority
EPBC Act	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
EPL	Environment Protection Licence
Escott	Escott Zeolite Mine
ha	Hectare
km	Kilometre
km^2	Square kilometres
LOM	Life of mine
LGA	Local Government Area
m	Metre
mm	Millimetre
ML	Mining lease
MNES	Matters of National Environmental Significance
MOP	Mining Operation Plan
PIRMP	Pollution Incident Response Management Plan
PMA	Private Mining Agreement
PPV	Peak particle velocity
RMP	Rehabilitation Management Plan
RMP Form and Way	*Form and way: Rehabilitation Management Plan for Large Mines*
ROBJ	Rehabilitation Objectives statement
ROM	Run of mine
RQAP	Rehabilitation Quality Assurance Process
RR	Resources Regulator
SLR	SLR Consulting Australia Pty Limited
T	Tonnes
tpa	Tonnes per annum
TARP	Trigger Action Response Plan
Werris Creek	Werris Creek Coal Pty Ltd
ZAPL	Zeolite Australia Pty Limited

1.0 Introduction to Mining Project

Escott Zeolite Mine (Escott) is an open cut zeolite mine and processing plant owned and operated by Zeolite Australia Pty Limited (ZAPL). Zeolite comprises Mining Lease (ML1356), approximately 1.5 kilometres (km) south of Werris Creek and 11km north-northwest of Quirindi in the northwest slopes and plains region of New South Wales, within an area defined as Gunnedah Coalfield (**Figure 1**).

This Rehabilitation Management Plan (RMP; the Plan) has been prepared by SLR Consulting Australia Pty Limited (SLR) in conjunction with ZAPL in accordance with the Mining Exploration and Geoscience – Resources Regulator's (RR) *Form and Way: Rehabilitation Management Plan for Large Mines* (Resource Regulator, 2024) and associated guidelines (refer **Section 1.3**). The Plan has also been prepared to satisfy the relevant conditions of ML1356.

1.1 History of Operations

1.1.1 Historic Consent

ZAPL was granted development consent by the former Quirindi Shire Council (now Liverpool Plains Shire Council (Council)) in 1988 (DA18/88) and a Private Mining Agreement (PMA25), authorising the resource activity of open cut mining of zeolite for the title owner within a two-hectare (2ha) boundary. Rehabilitation of surface disturbance has been completed in PMA 25 and signed off by the NSW Government.

This was followed by the issue of consents (DA27/88) and (DA29/93) in 1989 and 1994, which approved the development of a zeolite mine in ML1356 (encompassing an area of 96.55ha) and the construction and operation of an offsite processing plant at 234 Escott Road, Werris Creek, part portion 139 that became Lot 34 in DP856002 (now Lot 341 in DP1262866).

Since the commencement of exploration activities in 1988, subsequent small scale mining campaigns have produced between 2,000 and 6,000 tonnes of zeolite a year. Since 2018, production was increased to up to 9,000T of zeolite per annum, due to increasing demands.

In 1999, Environmental Protection Licence (EPL6378) was granted and remains in place for current operations.

1.1.2 Current Consent

ZAPL continues to operate the zeolite mine, haul road and processing plant. DA 27/88 and 29/93 remain in place, along with EPL6378. Surface disturbance activities carried out at Escott, including mining operations, ancillary mining activities and exploration, are relatively minor.

No rehabilitation has been undertaken and due to the nature of mining at Escott and, no rehabilitation is included in the Forward Program.

Under these consents and licence, Escott is authorised to produce up to 30,000T of zeolite annually. All authorisations, licences and consents are listed in **Section 1.2**.

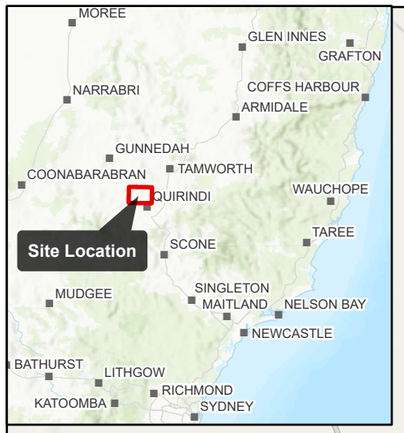
ML1356 was varied on 30 November 2023 to include Special Conditions for Ancillary Mining Activities (AMA1012) over land described in Schedule C of the amended Mining Lease. On 11 November 2024, ML1356 was renewed until 1 August 2046.

ZAPL is continuing its mine optimisation planning activities, which may include infrastructure upgrades and conducting mining operations in additional areas. These works are acknowledged but have not been included within the Forward Program.

ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

REGIONAL LOCALITY

FIGURE 1



LEGEND

- Project Approval Boundary
- Zeolite Processing Plant
- Assessment Lease
- Exploration Licence
- Mining Lease

Data sources:
Basemap: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, Geoscience Australia, NASA, NGA, USGS, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, USGS
Project Approval Boundary and mining boundaries: © State Government of NSW and Department of Regional New South Wales 2019

0 1 2 km

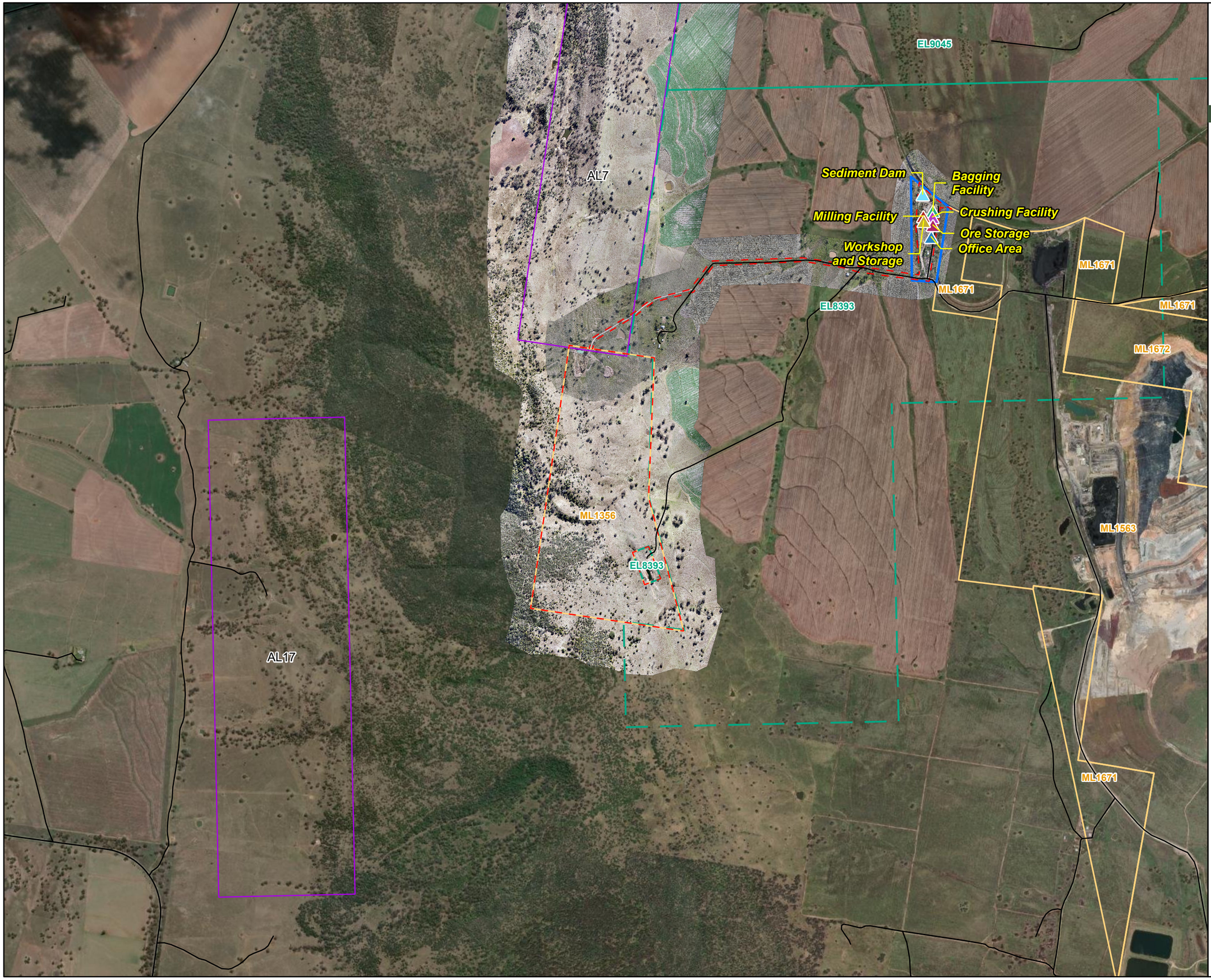
Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:70,000 at A3
Project Number:	630.30206
Date Drawn:	19-Sep-2025
Drawn by:	JH

SLR

ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

SITE LAYOUT

FIGURE 2



LEGEND

- Project Approval Boundary
- Zeolite Processing Plant
- Assessment Lease
- Exploration Licence
- Mining Lease
- Roads
- Bagging Facility
- Crushing Facility
- Milling Facility
- Office Area
- Ore Storage
- Sediment Dam
- Workshop and Storage

Data sources:
NSW SS
Basemap: Maxar
Project Approval Boundary and mining boundaries: © State Government of NSW and Department of Regional New South Wales 2019
High resolution imagery: Stewart Surveys (2023 & 2025)

0 250 500 m

Coordinate System:	GDA2020 MGA Zone 56
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Drawn by:	JH

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1.2 Current Development Consents, Leases and Licences

1.2.1 Development Consents

Table 1 presents the development consents held by ZAPL.

Table 1: Development Consents

Development Consents				
Consent	**Issuing/Responsible Authority**	**Date of Consent**	**Expiry**	**Comments**
DA27/88	Liverpool Plains Shire Council (Formerly Quirindi Shire Council)	16/02/1989	N/A	Proposed zeolite mine within portions 163, 215 and part 235 Parish of Grenfell (Mining Lease Area 212, now ML 1356).
DA29/93	Liverpool Plains Shire Council (formerly Quirindi Council)	23/05/1994	N/A	Zeolite Mineral Processing Plant, part portion 139, Parish of Grenfell. (now Lot 341 in DP1262866).
DA60/2019	Liverpool Plains Shire Council (formerly Quirindi Council)	2019	N/A	Approved the subdivision and consolidation of Lots 34 & 35 in DP856002 to create Lot 341 in DP1262866
DA29/93 – Modification 1	Liverpool Plains Shire Council (formerly Quirindi Council)	04/06/2024	3 June 2029*	Construction of one high bay storage shed installation of water tank and formalisation and minor realignment of the existing internal haul road at an existing processing plant.
*If not activated				

1.2.2 EPBC Approval

The EPBC Act requires consideration of the potential for a “significant impact” to be imposed by an activity on a ‘matter of national environmental significance’ (MNES). If such an impact is likely to occur, the activity must be referred to the Commonwealth for determination as to whether it constitutes a “controlled action”.

The Escott operation does not constitute a controlled action under the EPBC Act, and therefore no approval from the Australian Government Minister for the Environment is required.

1.2.3 Authorisations

ZAPL currently holds ML1356. This authorisation is outlined in **Table 2**.

Table 2: Authorisations

Mining/Exploration Authorisations				
Tenements (issue date)	**Issuing / Responsible Authority**	**Date of last renewal**	**Expiry**	**Comments**
ML356 (1992), including AMA1012	Resources Regulator	11/11/2024	01/08/2046	ML1356 was varied on 30 November 2023, to include Special Conditions for AMA1012 over land described in Schedule C and renewed on 11 November 2024 until 1 August 2046.
AL7 (1992)	Resources	19/04/2023	29/11/2028	N/A

Mining/Exploration Authorisations				
	Regulator			
AL17 (1992)	Resources Regulator	17/08/2023	12/05/2029	N/A
Exploration Licence (EL8393) (1992)	Resources Regulator	19/05/2006	01/08/2025	Renewal sought for 21 years over the full area on 3/07/2024, renewal pending.
*EL7901 expired on 14/02/2020				

1.2.4 Licences

A summary of all licences held by ZAPL for the mining operations are included in **Table 3.**

Table 3: Licences

Approval	Issuing/Responsible Authority	Date of last renewal	Licence Review	Comments
EPL6378 (1999)	Environment Protection Authority	12-03-2021	12-03-2026	Mining for minerals (0-30,000T obtained)

1.2.5 Applicable Guidelines

In addition to the regulatory requirements identified above, this Plan has been prepared with consideration for the following guidelines, standards, and policies (updated versions):

- *Form and way: Rehabilitation Management Plan (large mines)* (RMP Form and Way)*;*
- *Form and way: Rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan for large mines;*
- *Guideline: Rehabilitation risk assessment;*
- *Guideline: Rehabilitation objectives and rehabilitation completion criteria;*
- *Planning for Integrated Mine Closure Toolkit (ICMM, 2008);*
- *Mining Amendment (Standard Condition of Mining Leases – Rehabilitation) Regulation 2021;*
- *Strategic Framework for Mine Closure (ANZMEC, 2000);*
- *Leading Practice Sustainable Development Program for the Mining Industry – Mine Closure and Completion, Mine Rehabilitation (Commonwealth Department of Industry, Tourism and Resources);*
- Best Practice Environmental Management in the Mining Industry Series;
- Enduring Value (Mineral Council of Australia 2015); and
- *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP).*

1.3 Land Ownership and Land Use

1.3.1 Land Ownership

ML1356, including AMA1012 occupies an area of 105.55 ha (excluding the 2ha of former PMA25) and is located within parts of freehold land described as Lots 215, 235, 170, 156, 65, 62, and 163 in DP751017, Lot 5 in DP1184235, Lot 1 in DP1204207, and Lot 341 in DP1262866 as indicated in **Figure 1** and **Figure 2.**

This land (excluding the Process Plant on Lot 341 in DP126866) is owned by Werris Creek Coal Pty Limited and is in the Parish of Grenfell, County of Buckland in the Liverpool Plains Shire Council Local Government Area (LGA). Access to ML1356 is via Escott Road, sections of Crown Road then by mutual agreement with the landowner across Lots 163 and 215 in DP751017.

Two Assessment Leases (ALs), AL7 covering an area of 129ha immediately north and adjoining ML1356 and AL17 covering an area of 2.2km^2 separate and to the west are also held by ZAPL. In addition, and encompassing the above authorities, EL7901 covering 3 units was granted on 14 February 2012, renewed for a 3-year period with expiry of 14 February 2020 has now lapsed. Refer to **Figure 3.**

1.3.2 Historic Land Use

Land use in the surrounding area is smaller scale mixed farming operations, however, this transitions to larger more intensive cropping operations further west on the Liverpool Plains. To the south of Escott, between Taylors Lane and Paynes Road, several landholders are dependent on irrigation to sustain relatively high intensity lucerne cropping with cattle grazing. Land in the Escott specific area is cropping land and sloping grazing land with scattered tree coverage.

Other notable current or previous land uses within or immediately surrounding Escott are as follows:

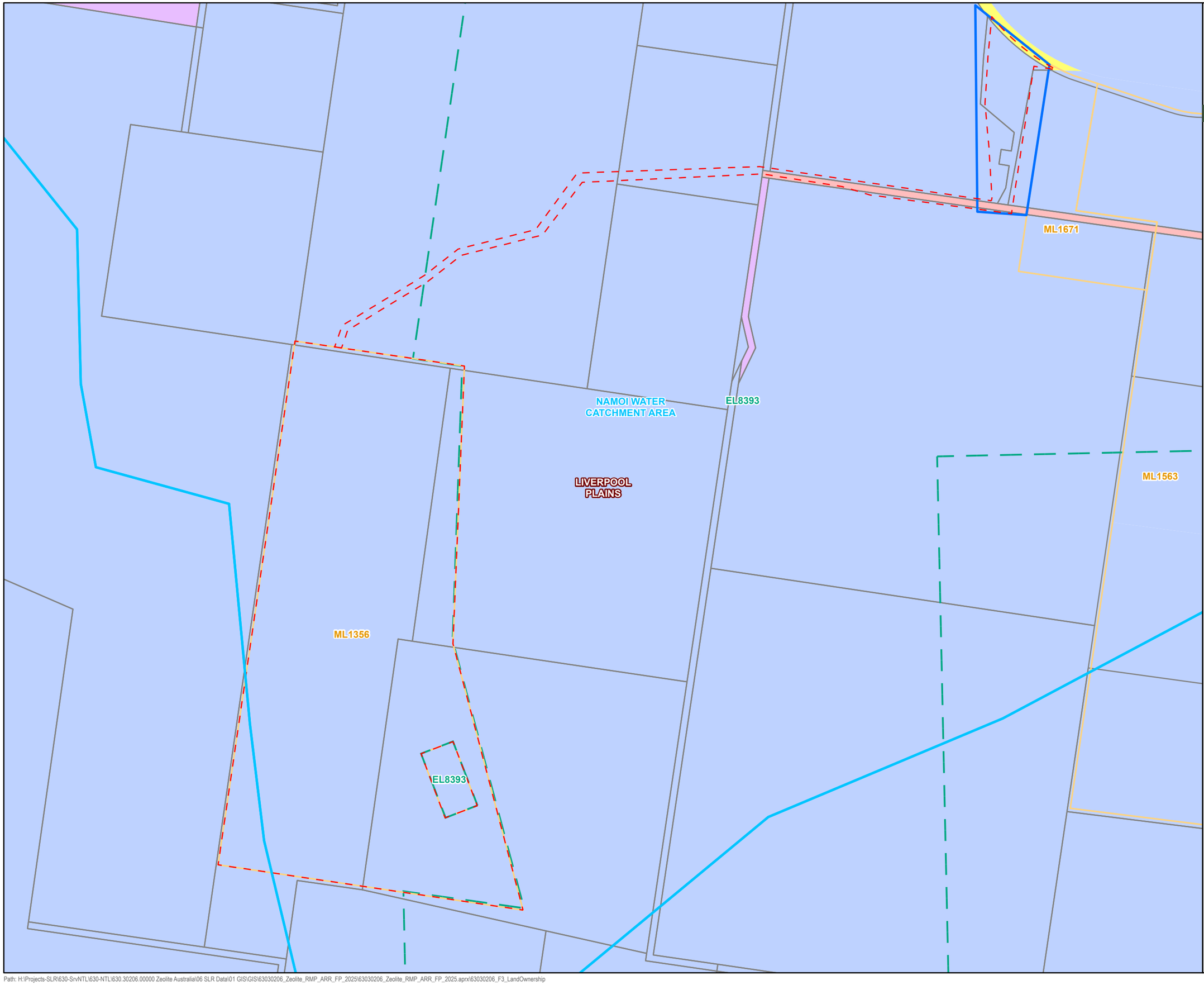
- Former gravel extraction quarries of Council and Tamworth Regional Council which have been incorporated into the open cut of Escott;
- A large open cut coal mine owned, run and serviced by Werris Creek Coal Pty Limited;
- The former Werris Creek Colliery, remnants of which have been identified on the “Preston Park” property; and
- A biodiversity offset area on lands of Escott and surrounding properties.

In the sites early history, it had evidence of European disturbance by grazing and clearing, but no evidence pre-European disturbance.

ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

LAND OWNERSHIP

FIGURE 3



LEGEND

- Project Approval Boundary
- Zeolite Processing Plant
- Exploration Licence
- Mining Lease
- Water Catchment Area
- Property Boundaries
- Local Government Area

Land Ownership Category

- Crown
- Freehold
- Local Government Authority
- NSW Government

Data sources:
NSW SS
Project Approval Boundary and mining boundaries: © State Government of NSW and Department of Regional New South Wales 2019

0 150 300 m

Coordinate System:	GDA2020 MGA Zone 56
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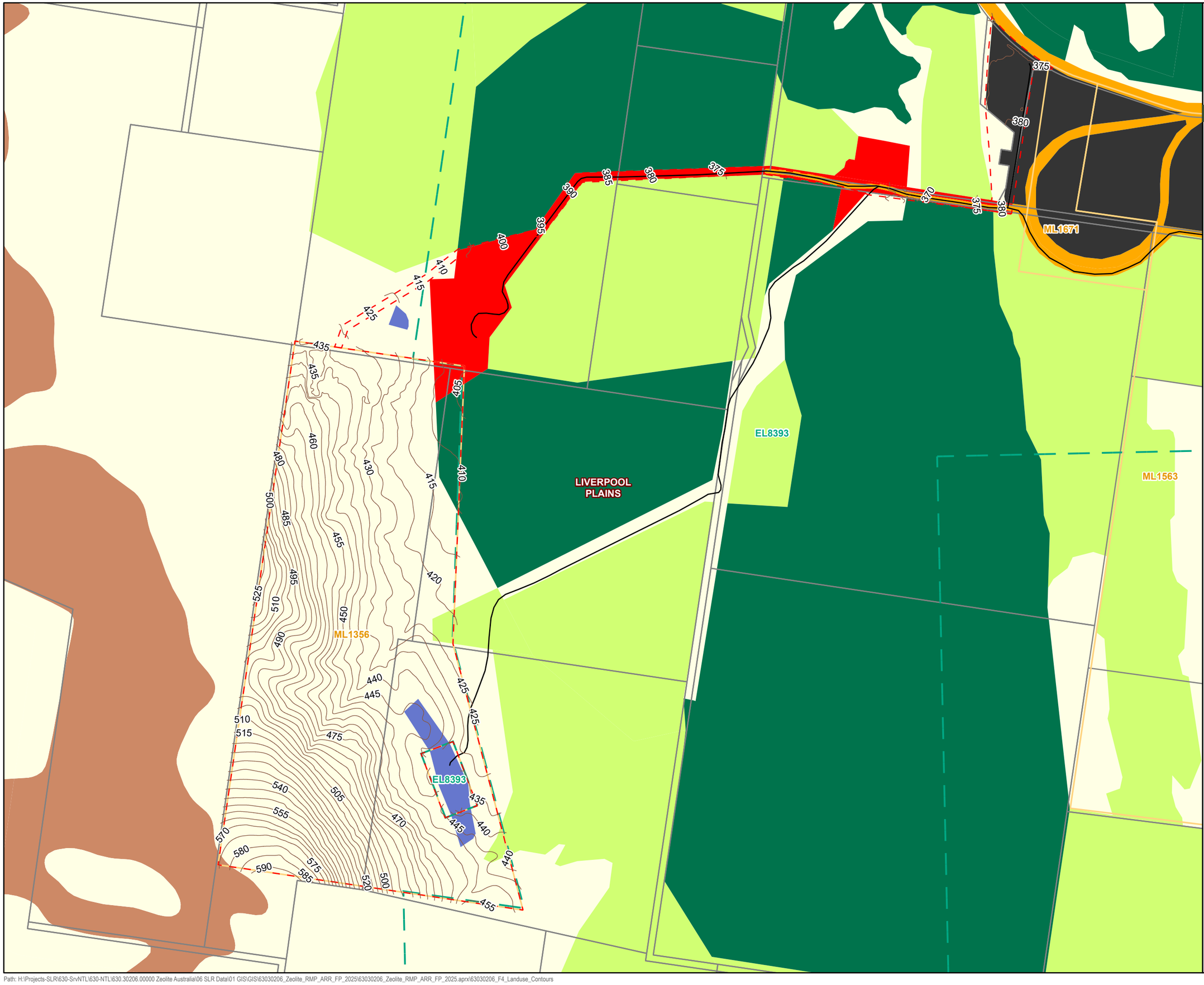
ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

LAND USE AND CONTOURS

FIGURE 4



LEGEND

- Project Approval Boundary
- Exploration Licence
- Mining Lease
- Current Landform Contour (5m)
- Roads
- Property Boundaries
- Local Government Area

Land Use

- 1.3.0 Other minimal use
- 2.1.0 Grazing native vegetation
- 3.2.0 Grazing modified pastures
- 3.3.0 Cropping
- 5.4.0 Residential and farm infrastructure
- 5.7.0 Transport and communication
- 5.8.0 Mining
- 6.2.0 Reservoir/dam

Data sources:
NSW SS
Project Approval Boundary and mining boundaries: © State Government of NSW and Department of Regional New South Wales 2019
Landuse: © State Government of NSW and Department of Planning and Environment 2020

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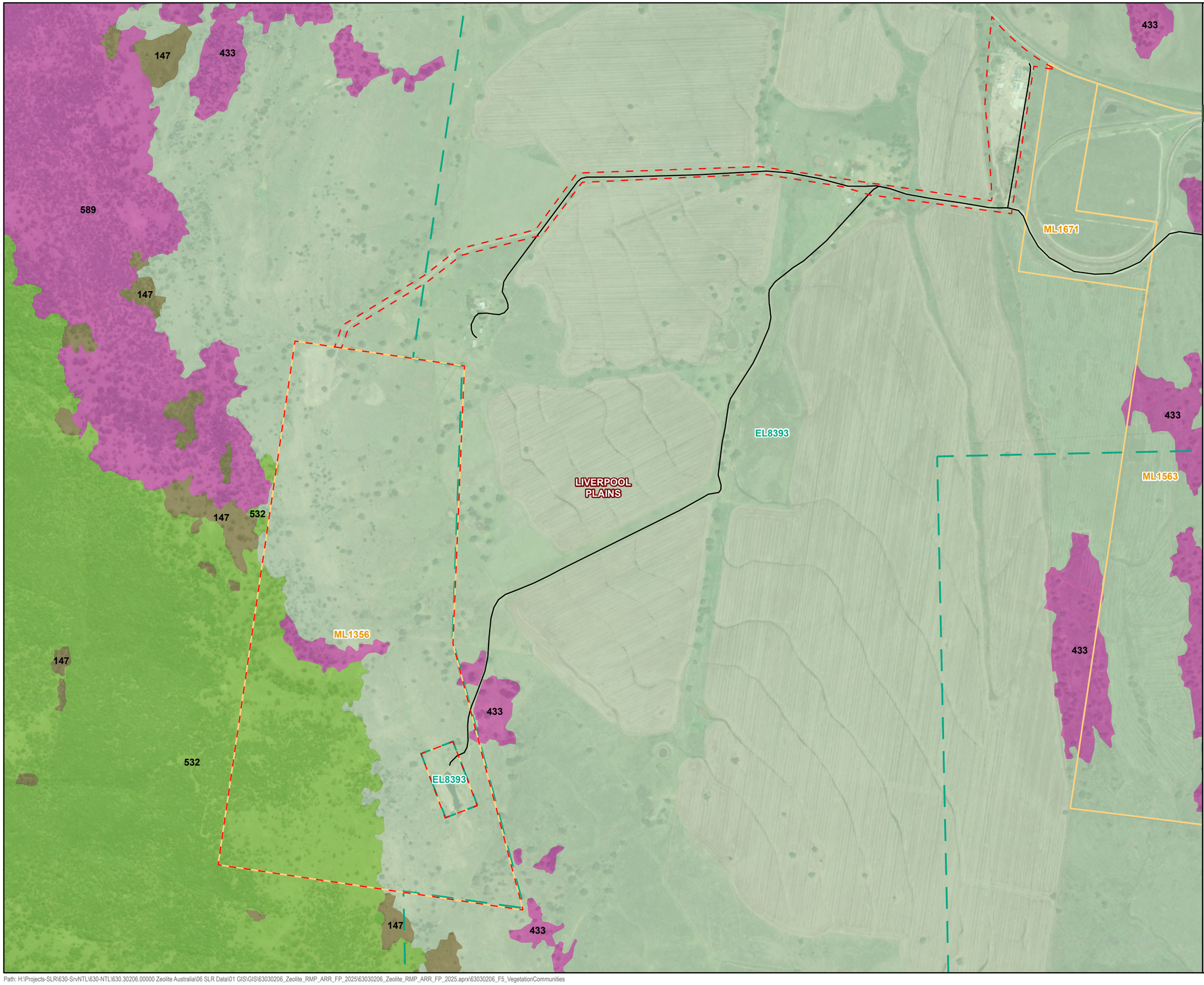
ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

VEGETATION COMMUNITIES

FIGURE 5



LEGEND

- Project Approval Boundary
- Exploration Licence
- Mining Lease
- Roads
- Local Government Area

Vegetation Mapping

- Dry Sclerophyll Forests (Shrubby sub-formation)
- Grassy Woodlands
- Not classified
- Rainforests

Data sources:
NSW SS
Project Approval Boundary and mining boundaries: © State Government of NSW and Department of Regional New South Wales 2019
Landuse: © State Government of NSW and Department of Planning and Environment 2020
Vegetation: NSW State Vegetation Type Mapping, Version C2.0.M2.1 (NSW DCCEEW 2024)

0 150 300 m

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1.3.3 Current Land Use

The current land use for the site is a zeolite mineral mine and processing plant. ZAPL will continue to develop the northern block of ML1356. Areas within ML1356 not disturbed by mining will remain as native pasture with scattered trees that fits the description of Box Gum Grassy Woodland, a Critically Endangered ecological community under the *Biodiversity Conservation Act 2016* and the Environment Protection and *Biodiversity Conservation Act 1999* (EPBC Act).

1.3.4 Future Land Use

The future land use nominated for Escott consists of a safe, stable, non-polluting and sustainable landform.

It is anticipated that areas disturbed by mining will be revegetated to predominately native vegetation. Revegetation will include woodland vegetation communities, generally consistent with the pre-mining landscape to facilitate a range of post mining land uses which may include grazing, woodland vegetation, habitat features for fauna and flora corridors.

Drainage structures will re-establish water flows within and around rehabilitated landforms. Backfilling of mining areas will be undertaken to form depressions within the landform, with mine voids to remain as functional water storages. Water stored within void areas could be used for stock watering, bushfire response or ecosystem features.

For the disturbance areas within the processing plant and haul road, it is planned that infrastructure will be retained and repurposed for agricultural uses, buffer areas will be landscaped, and water management structures will be retained to provide water for dust management and stock watering.

2.0 Final Land Use

2.1 Regulatory Requirements for Rehabilitation

The regulatory requirements specific to post mining land use, rehabilitation, and closure at Escott are summarised in **Table 4**. **Appendix C** details Schedule 8A requirements under the Mining Regulation 2016.

Table 4: Regulatory Requirements Rehabilitation

Condition	Requirement	Domain	Timing	Section Addressed
ML1356				
Condition 13	Rehabilitation a) Land disturbed must be rehabilitated to a stable and permanent form suitable for a subsequent land use acceptable to the Director-General and in accordance with the Mining Operations Plan so that: a. There is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion b. the state of the land is compatible with the surrounding land and the land use requirements c. the landforms, soils, hydrology and flora require no greater maintenance that that in the surrounding land. d. In cases where revegetation is required and native vegetation has been removed or damaged, the original species must be re-established with close reference to the flora survey included in the Mining Operations Plan. If the original vegetation was not native, any re-established vegetation must be appropriate to the area and at an acceptable density. e. The land does not pose a threat to public safety. b) Any topsoil that is removed must be stored ad maintained in a manner acceptable to the Director-General.	1, 4, 5	It is noted that the RMP (this document) has superseded the Mining Operation Plan (MOP)	Sections 4.1, 4.2, 6
Condition 16	**Prevention of Soil Erosion and Pollution** Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operation Plan. For the purpose of this condition, water shall be taken to include any watercourse, water body, or groundwater. The lease holder must observe and perform any instructions given by the Director- General in this regard.	1, 4, 5		Sections 4.1, 4.2, 6

Condition	Requirement	Domain	Timing	Section Addressed
Condition 20	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Planning.	1, 4, 5		Section 6.2.2
Condition 21	a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attached unreasonable conditions to the consent, without the approval of a warden. b) The lease holder must not cut, destroy, ringbark or remove any timber or other vegetation cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions on the Native Vegetation Conservation Act 1997. c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.	1, 4, 5		Section 6
Condition 25	**Security** a) A security in the sum of $30,000.00 must be given and maintained with the Minister be the lease holder for the purpose on ensuring the fulfilment by the lease holder of obligations under this lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of this lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder, or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulation made thereunder. b) The lease holder must provide the security required by sub-clause (a) in one of the following forms: a. Cash b. A security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.	1, 4, 5		Section 6.2.2

2.2 Final Land Use Options Assessment

The 1988 EIS for Escott nominated a post mining land use objectives of a stable final landform with minimal ongoing maintenance and a landform capable of grazing. The MOP (approved prior to the 2022 reforms) nominated woodland as the post mining land use.

On this basis and in accordance with Section 2.2 of the RMP Form and Way, rehabilitation will be undertaken to facilitate a range of post mining land uses which may include grazing, woodland vegetation and habitat features for fauna and flora corridors. No further land use options assessments are proposed.

Detailed assessment of alternate final land use options will be undertaken as part of future mine extensions and detailed mine closure planning processes.

2.3 Final Land Use Statement

The final land use goal is to establish a safe, stable, non-polluting and sustainable landform revegetated with woodland vegetation communities generally consistent with the pre-mining landscape. For the area within AMA1012, infrastructure will be retained and repurposed for agricultural uses, buffer areas will be landscaped, and water management structures will be retained to provide water for dust management and stock watering.

Detailed assessment of alternate final land use options will be undertaken as part of detailed mine closure planning processes and in consultation with the relevant stakeholders.

2.4 Final Land Use and Mining Domains

2.4.1 Final Land Use Domains

The final land use domains have been defined as land management units characterised by a similar post mining land use objective. Each final land use domain will require specific rehabilitation methods.

The final land use domains are presented in **Table 5** and will be shown on the final landform plans presented in **Section 5**.

Table 5: Final Land Use Domains

Code	Final Land Use Domain	Description
A	Native Ecosystem	Areas to be rehabilitated with native grasses, shrubs and plants species reflective of the composition of Box Gum Grassy Woodland to support the agreed final land use of native ecosystem that can facilitate a range of post mining land uses which may include grazing, woodland vegetation, habitat features for fauna and flora corridors. Includes rehabilitation to be undertaken on some existing infrastructure areas, overburden emplacement areas and open cut mining areas.
G	Water Storage	This domain includes those water storage areas that will remain in the final landform i.e. dams.
I	Infrastructure	This domain includes those items of infrastructure that will remain following mine closure for a lawful land use, namely a land use permitted without consent or following granting of development consent. In the absence of further approvals, this would indicatively include the infrastructure area of the Zeolite mine.
J	Final Void	The voids will include grassed safe slopes angling to the water filled void(s). The voids will remain as a functional water storage that could be used for a range of final land uses with a slope f 1 in 3 or less to prevent people or stock from getting trapped in the water

2.4.2 Mining Domains

Mining domains identify the footprint of areas disturbed for mining related activities. For this Plan, mining domains have been defined as the set of discrete areas that have a particular operational or functional purpose, therefore having similar geophysical and geochemical characteristics that will have similar rehabilitation requirements.

Mining domains are presented in **Table 6.**

Table 6: Mining Domains

Code	Mining Domain	Description
1	Infrastructure Area	This domain includes the haul road and soil stockpiles.
3	Water Management Area	This domain includes all clean and dirty water dams; diversion drains and associated infrastructure.
4	Overburden Emplacement Areas	This domain will include the overburden emplacement area, both in-pit and out-of-pit components, in its entirety. This area also includes historic rehabilitation activities.
5	Active Mining Area (Open Cut Void)	This domain refers to the active area of mining beyond the toe of the in-pit component of the overburden emplacement. The size, depth and catchment of final voids will be minimised.
7	Beneficiation facility	Beneficiation facility includes plant used for the processing of minerals such as cyanidation plant, concentrators, thickeners, crushers, separators, etc.

3.0 Rehabilitation Risk Assessment

3.1 Summary of Risk Assessments

Prior to the Rehabilitation Reforms, no previous risk assessments have been completed specifically for the rehabilitation works associated with Escott.

The Environmental Impact Statement (EIS) prepared by R.W. Corkery & Co. Pty Limited in 1988, along with the subsequent Ecological and Archaeological Due Diligence Assessments completed by RPS in 2013, provide an assessment of the risks associated with the proposed mining operations.

An inaugural risk assessment workshop was undertaken on 18 May 2022. The workshop was used to identify the key issues that presented a risk to achieving satisfactory rehabilitation at Escott.

The risk assessment for this RMP was performed in conjunction with ZAPL and SLR, detailing the potential rehabilitation risks for this specific site. The key outcomes from this workshop are investigated in this section.

An update to the rehabilitation risk assessment was undertaken in August 2023 as part of updates to the Forward Program and Rehabilitation Objectives and in September 2025 as part of the AMA1012 inclusion into ML1356.

The ZAPL Risk Assessment will be reviewed and if required, updated across ongoing Forward Programs, as required by the ML1356 Standard Conditions.

3.2 Rehabilitation Risk Assessment

Conditions of a mining lease granted under the *Mining Act 1992* require the lease holder to conduct a rehabilitation risk assessment and implement measures to eliminate, minimise or mitigate the risks in accordance with the RR's *Guideline: Rehabilitation risk assessment.*

The risk assessment included key ZAPL and SLR personnel and was undertaken in accordance with *AS/NZS ISO 31000:2018 Risk Management – Guidelines and the Risk Management Handbook for the Mining Industry* (MDG1010). ZAPL's Risk Matrix was used to calculate the consequence and likelihood of an event and to evaluate the subsequent risk level (risk rank).

The risk assessment has been used to inform the preparation of this Plan. The objectives of the risk assessment were to:

- Identify and assess the risks associated with achieving the rehabilitation objectives, completion criteria and/or the final land use;
- Identify control measures required to address the risks identified;
- Consider systems and processes in place to monitor the implementation and effectiveness of the risk controls;
- Consider where monitoring identifies that controls are not effective and how risks are reassessed and additional controls are identified and implemented;
- Consider schedules for review and update of the rehabilitation risk assessment; and
- Inform the RMP (due in 2025).

A copy of the Rehabilitation Risk Assessment is maintained onsite and is available as a record in accordance with Clause 17 of Schedule 8A, to the Mining Regulation 2016.

Multiple risks assessments related to Rehabilitation have not been conducted. A single risk assessment updated as required has been prepared for Schedule 8A requirements.

3.2.1 Rehabilitation Risks

The risk workshop identified that there were no key risks (high, significant, or extreme level) to the successful rehabilitation of the site when considering associated risk controls.

Due to the size and scale of this operation however, SLR and ZAPL recognised several moderate level risks that required some improvement. Improvement actions for managing rehabilitation risks are tracked and managed by ZAPL.

Table 7: Key Rehabilitation Risks and Identified Controls

Key Risk	Key Controls	Sections Addressed
Insufficient skills and experience of rehabilitation personnel	Experienced ZAPL personnel	6.1
	Specialist consultants engaged to develop the RMP and provided advice as required	6.1
	Quality Assurance Process	7.0
	Rehabilitation Plan (Updated)	7.0
Lack of clearly defined responsibilities	Experienced ZAPL personnel	6.1
	Quality Assurance Process	7.0
	Rehabilitation Plan (Updated)	7.0
Insufficient funding for or prioritisation of rehabilitation activities	Rehabilitation Cost Estimate	6.2
	Closure Planning Process	6.2
	Rehabilitation Plan (Updated)	7.0
	Forward Program	6.1
Planning does not factor in rehabilitation requirements and approval conditions	Consideration of current regulatory guidelines and recommendations, including Mining Licence (ML) conditions	This Document
	Rehabilitation Management Plan	This Document
	Closure Planning Process	6.2

Key Risk	Key Controls	Sections Addressed
Biological resource salvage and maintenance (e.g. subsoil, topsoil, vegetative material, seedbank, rocks, habitat resources) through clearing, salvage and handling practices	Rehabilitation Management Plan	This Document
	Rehabilitation Plan (Updated)	7.0
	Forward Program	6.1
Limited pre-existing biological resources for salvage (e.g. topsoil, weeds)	Rehabilitation Management Plan	This Document
	Rehabilitation Plan (Updated)	7.0
	Forward Program	6.1
Clearing in adverse seasonal and weather conditions when salvaging biological resources	Operations do not take place during adverse weather conditions due to the nature of zeolite.	6.2
	Ground Disturbance Protocols	6.2
	Rehabilitation Management Plan	This Document
	Short term operations planning	Forward Program
Adverse surface quality and quantity	Sediment and erosion control in place, separation of clean water and mine water catchments.	6.2
	Operational Environmental Management Plan	
Uncontrolled run off from mine infrastructure, roads, waste dumps etc. can lead to sedimentation Large, cleared areas/ landforms with incomplete runoff control Extreme weather events	Surface water management structures	6.2
	Hazard and incident reporting and investigation requirements	Site Pollution Incident Response Management Plan (PIRMP)
	Short term operations planning	Forward Program
Hazards associated with retained infrastructure	Rehabilitation Management Plan	This Document
	Operational Environmental Management Plan	6.1
	Rehabilitation Plan (Updated)	7.0
	Closure Planning Process	6.2
Generation of material and waste products from the demolition process	Operational Environmental Management Plan	6.1
	Rehabilitation Plan (Updated)	7.0
	Closure Planning Process	6.2
	Short term operations planning	Forward Program
Unstable landform due to erosion and/or mass movement issues associated with inappropriate design and/or quality assurance during landform construction	Topsoil / subsoil management	6.2
	Rehabilitation management plan	This Document
	Rehabilitation Plan (Updated)	7.0
	Quality Assurance Process	7.0
Ability to sustain safe, stable and non-polluting in pit and future	Topsoil / subsoil management	6.2
	Rehabilitation management plan	This Document
	Rehabilitation Plan (Updated)	7.0

Key Risk	Key Controls	Sections Addressed
	Closure Planning Process	6.2
Weed infestation	Rehabilitation Management Plan	6.2
	Rehabilitation Plan	Separate document
	Quality Assurance Processes	7.0
Adopting inappropriate or inadequate rehabilitation techniques, including equipment fleet.	Rehabilitation Plan (Updated)	7.0
	Quality Assurance Processes	7.0
Insufficient establishment of target species and limited species diversity to allow transition into Ecosystem Development	Rehabilitation Plan (Updated)	7.0
	Quality Assurance Processes	7.0
Limited vegetation structural development and habitat for targeted fauna species	Rehabilitation Plan (Updated)	7.0
	Quality Assurance Processes	7.0
Erosion and failure of landform, drainage and water management/storage structures	Rehabilitation Plan (Updated)	7.0
	Rehabilitation Management Plan	This Document
	Quality Assurance Processes	7.0
Lack of infrastructure to support intended final land use (e.g. dams, fences, watering facilities)	Rehabilitation Plan (Updated)	7.0
	Closure Planning Processes	6.2
	Quality Assurance Processes	7.0

3.2.2 Action Plan

Through identifying risks that needed improvement, the risk workshop showed some areas that needed further actions. ZAPL maintains a Rehabilitation Risk Action Plan, which forms part of the single risk assessment prepared for Schedule 8A requirements.

4.0 Rehabilitation Objectives and Rehabilitation Completion Criteria

4.1 General Rehabilitation Requirements

ZAPL will:

a) Rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*;

b) Rehabilitate the site generally in accordance with commitments and requirements of EISs and Development Consents; and

c) Rehabilitate the site to achieve the Rehabilitation Objectives shown in **Table 8.**

Table 8: Rehabilitation Domain Objectives

Aspect	Objective
Site	Safe, stable, non-polluting and sustainable landform. Fit for the intended final land use(s). Final landform integrated with surrounding natural landforms as far as is reasonable and feasible, and minimising visual impacts when viewed from surrounding land. The condition of the vegetation on the rehabilitated areas is trending towards the conditions that occur in the same vegetation type in the locality. Rehabilitate all mined land to facilitate the Final Land Use Statement.
Infrastructure	All infrastructure decommissioned and removed, unless required by intended post-quarrying operations land use(s). Retained infrastructure complies with relevant standards and guidelines.
Final Void	Shaped and rehabilitated with native woodland vegetation species. Backfilled to support the native vegetation outcomes. Battered to a grade of 1 in 3 or less to prevent people or stock from getting trapped in the water. Minimise the size and depth of final voids, drainage catchment of final voids, and landform instability risk.
Revegetation	Landscaped and revegetated with native woodland vegetation species.
Drainage	Hydraulically and geomorphologically stable. Landscaped and revegetated using aquatic ecology and riparian vegetation consistent with surrounding watercourses.
Community	Ensure public safety. Minimise negative socio-economic impacts of quarry closure. Opportunities to provide long term strategic benefits are pursued.

4.2 Rehabilitation Objectives

To achieve the broad rehabilitation objectives presented in **Section 4.0**, ZAPL has developed specific domain rehabilitation objectives (ROBJs). The ROBJs were approved by the RR on 7 November 2023 (ROBJ0001323) and on 10 October 2025 (ROBJ0001556). An extract of the approved ROBJs is presented in **Table 9** and copies of the approval documents are provided in **Appendix B**.

Table 9: Rehabilitation Objectives

Number	Final Land Use Domain	Mining Domain	Spatial Reference (e.g. A3)	Rehabilitation Objective Category	Rehabilitation Objective
ROB0033987	Native Ecosystem	Infrastructure Area	A1	Bushfire	The risk of bushfire and impacts to the community, environment and infrastructure is managed in accordance with regulatory requirements.
ROB0033988	Native Ecosystem	Infrastructure Area	A1	Ecological rehabilitation	Ecological rehabilitation objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native vegetation community of Box-Gum Woodland found in the local area.
ROB0033989	Native Ecosystem	Infrastructure Area	A1	Ecological rehabilitation	Ecological rehabilitation objective 2: The vegetation structure of the rehabilitation is similar to that of native vegetation communities of Box Gum Woodland found in the local area.
ROB0033990	Native Ecosystem	Infrastructure Area	A1	Ecological rehabilitation	Ecological rehabilitation objective 3: Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.
ROB0033991	Native Ecosystem	Infrastructure Area	A1	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land (original rough grazing land capability).
ROB0033992	Native Ecosystem	Infrastructure Area	A1	Groundwater	Groundwater quality is similar to background water quality.
ROB0033993	Native Ecosystem	Infrastructure Area	A1	Groundwater	Impacts to groundwater are similar to the background environment.
ROB0033994	Native Ecosystem	Infrastructure Area	A1	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
ROB0033996	Native Ecosystem	Infrastructure Area	A1	Landform stability	Landform that is commensurate with surrounding natural landform
ROB0033995	Native Ecosystem	Infrastructure Area	A1	Landform stability	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 or negatively impact the community socially or economically.
ROB0033997	Native Ecosystem	Infrastructure Area	A1	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.

Number	Final Land Use Domain	Mining Domain	Spatial Reference (e.g. A3)	Rehabilitation Objective Category	Rehabilitation Objective
ROB0033998	Native Ecosystem	Infrastructure Area	A1	Removal of infrastructure	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.
ROB0033999	Native Ecosystem	Infrastructure Area	A1	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community and supports a native ecosystem final land (use access tracks for example)
ROB0034000	Native Ecosystem	Infrastructure Area	A1	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality
ROB0034001	Native Ecosystem	Overburden Emplacement Area	A4	Bushfire	The risk of bushfire and impacts to the community, environment and infrastructure is managed in accordance with regulatory requirements
ROB0034002	Native Ecosystem	Overburden Emplacement Area	A4	Ecological rehabilitation	Ecological rehabilitation objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native vegetation community of Box-Gum Woodland found in the local area.
ROB0034003	Native Ecosystem	Overburden Emplacement Area	A4	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native vegetation communities of Box Gum Woodland found in the local area.
ROB0034004	Native Ecosystem	Overburden Emplacement Area	A4	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.
ROB0034005	Native Ecosystem	Overburden Emplacement Area	A4	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land (original rough grazing land capacity).
ROB0034006	Native Ecosystem	Overburden Emplacement Area	A4	Groundwater	Groundwater quality is similar to background water quality.
ROB0034007	Native Ecosystem	Overburden Emplacement Area	A4	Groundwater	Impacts to groundwater are similar to the background environment.
ROB0034008	Native Ecosystem	Overburden Emplacement Area	A4	Land Contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
ROB0034010	Native Ecosystem	Overburden Emplacement Area	A4	Landform stability	Landform that is commensurate with surrounding natural landform
ROB0034009	Native Ecosystem	Overburden Emplacement Area	A4	Landform stability	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

Number	Final Land Use Domain	Mining Domain	Spatial Reference (e.g. A3)	Rehabilitation Objective Category	Rehabilitation Objective
					public/stock/native fauna or negatively impact the community socially or economically.
ROB0034011	Native Ecosystem	Overburden Emplacement Area	A4	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
ROB0034012	Native Ecosystem	Overburden Emplacement Area	A4	Removal of infrastructure	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.
ROB0034013	Native Ecosystem	Overburden Emplacement Area	A4	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community and supports a native ecosystem final land use (access tracks for example)
ROB0034014	Native Ecosystem	Overburden Emplacement Area	A4	Surface Water	Runoff water quality from mine site is similar to, or better than the background runoff water quality
ROB0034015	Native Ecosystem	Active Mining Area (Open cut void)	A5	Bush fire	The risk of bushfire and impacts to the community, environment and infrastructure is managed in accordance with regulatory requirements
ROB0034016	Native Ecosystem	Active Mining Area	A5	Ecological rehabilitation	Ecological rehabilitation objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native vegetation community of Box-Gum Woodland found in the local area.
ROB0034017	Native Ecosystem	Active Mining Area	A5	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native vegetation communities of Box Gum Woodland found in the local area.
ROB0034018	Native Ecosystem	Active Mining Area	A5	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.
ROB0034019	Native Ecosystem	Active Mining Area	A5	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land for original rough grazing land capability)
ROB0034020	Native Ecosystem	Active Mining Area	A5	Groundwater	Groundwater quality is similar to background water quality.
ROB0034021	Native Ecosystem	Active Mining Area	A5	Groundwater	Impacts to groundwater are similar to the background environment.

Number	Final Land Use Domain	Mining Domain	Spatial Reference (e.g. A3)	Rehabilitation Objective Category	Rehabilitation Objective
ROB0034022	Native Ecosystem	Active Mining Area	A5	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
ROB0034024	Native Ecosystem	Active Mining Area	A5	Landform stability	Landform that is commensurate with surrounding natural landform
ROB0034023	Native Ecosystem	Active Mining Area	A5	Landform stability	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 or negatively impact the community socially or economically.
ROB0034025	Native Ecosystem	Active Mining Area	A5	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
ROB0034026	Native Ecosystem	Active Mining Area	A5	Removal of infrastructure	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.
ROB0034027	Native Ecosystem	Active Mining Area	A5	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community and supports a native ecosystem final land use access tracks for example)
ROB0034028	Native Ecosystem	Active Mining Area	A5	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality.
ROB0034036	Water Management Areas	Water Management Areas	F3	Ecological rehabilitation	Ecological Rehabilitation Objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native riparian vegetation found in the local area.
ROB0034037	Water Management Areas	Water Management Areas	F3	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native riparian vegetation found in the local area.
ROB0034038	Water Management Areas	Water Management Areas	F3	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function within native riparian vegetation have been established that demonstrate the rehabilitation is self-sustainable.
ROB0034029	Water Management Areas	Water Management Areas	F3	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.

Number	Final Land Use Domain	Mining Domain	Spatial Reference (e.g. A3)	Rehabilitation Objective Category	Rehabilitation Objective
ROB0034030	Water Management Areas	Water Management Areas	F3	Landform stability	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 or negatively impact the community socially or economically. Landform that is commensurate with surrounding natural landform.
ROB0034031	Water Management Areas	Water Management Areas	F3	Management of waste and	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
ROB0034032	Water Management Areas	Water Management Areas	F3	Removal of infrastructure	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.
ROB0034033	Water Management Areas	Water Management Areas	F3	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community.
ROB0034034	Water Management Areas	Water Management Areas	F3	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality
ROB0034035	Water Management	Water Management Area	F3	Water approvals	Structures that take or divert water such as final voids, dams, levees etc. are appropriately licensed fees under the Water Management Act 2000 and where required ensure sufficient licence shares are held in the water sources to account for water take.
ROB0034040	Water Storage	Water Management Area	G3	Ecological rehabilitation	Ecological Rehabilitation Objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native riparian vegetation found in the local area.
ROB0034041	Water Storage	Water Management Area	G3	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native riparian vegetation found in the local area.
ROB0034042	Water Storage	Water Management Area	G3	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function within native riparian vegetation have been established that demonstrate the rehabilitation is self-sustainable.
ROB0034039	Water Storage	Water Management Area	G3	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land (original rough grazing land capability).

Number	Final Land Use Domain	Mining Domain	Spatial Reference (e.g. A3)	Rehabilitation Objective Category	Rehabilitation Objective
ROB0050459	Water Storage	Water Management Area	G3	Groundwater	Groundwater quality is similar to background water quality.
ROB0050460	Water Storage	Water Management Area	G3	Groundwater	Impacts to groundwater are similar to the background environment.
ROB0050461	Water Storage	Water Management Area	G3	Land contamination	There is no residual contamination on site that is incompatible with intended final land use or that poses a threat of environmental harm.
ROB0050463	Water Storage	Water Management Area	G3	Landform stability	Landform that is commensurate with surrounding natural landform and where appropriate, incorporates geomorphic design principles.
ROB0034043	Water Storage	Water Management Area	G3	Landform stability	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 or negatively impact the community socially or economically. Landform that is commensurate with surrounding natural landform.
ROB0050462	Water Storage	Water Management Area	G3	Landform stability	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 or negatively impact the community socially or economically.
ROB0050464	Water Storage	Water Management Area	G3	Removal of infrastructure	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.
ROB0050465	Water Storage	Water Management Area	G3	Retention of infrastructure	Where necessary, development consents and/or land owner agreements are obtained for all infrastructure that is to remain as part of the final land use.
ROB0034044	Water Storage	Water Management Area	G3	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality
ROB0050466	Water Storage	Water Management Area	G3	Surface water	Runoff water quality from mine site meets the requirements of the relevant development consent) / Environment Protection Licence and does not present a risk of environmental harm.
ROB0050467	Water Storage	Water Management Area	G3	Water approvals	Structures that take or divert water such as final voids, dams, levees etc. are appropriately licensed (e.g. - under the Water Management Act 2000) and where required sufficient licence shares are held in the water sources) to account for water take.

Number	Final Land Use Domain	Mining Domain	Spatial Reference (e.g. A3)	Rehabilitation Objective Category	Rehabilitation Objective
ROB0034045	Water Storage	Water Management Area	G3	Water approvals	Structures that take or divert water such as final voids, dams, levees etc. are appropriately licensed (e.g. under the Water Management Act 2000) and where required sufficient licence shares are held in the water sources) to account for water take.
ROB0050452	Infrastructure	Infrastructure Area	I1	Bushfire	The risk of bushfire and impacts to the community, environment and infrastructure is managed in accordance with regulatory requirements
ROB0050453	Infrastructure	Infrastructure Area	I1	Land and water contamination	There is no residual soil contamination on site that is incompatible with intended final land use or that poses a threat of environmental harm.
ROB0050454	Infrastructure	Infrastructure Area	I1	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
ROB0050455	Infrastructure	Infrastructure Area	I1	Landform stability	Landform that is commensurate with surrounding natural landform
ROB0050456	Infrastructure	Infrastructure Area	I1	Landform stability	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 or negatively impact the community socially or economically.
ROB0050457	Infrastructure	Infrastructure Area	I1	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community
ROB0050458	Infrastructure	Infrastructure Area	I1	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality
ROB0050440	Infrastructure	Beneficiation Facility	I7	Bushfire	The risk of bushfire and impacts to the community, environment and infrastructure is managed in accordance with regulatory requirements
ROB0050441	Infrastructure	Beneficiation Facility	I7	Groundwater	Groundwater quality is similar to background water quality.
ROB0050442	Infrastructure	Beneficiation Facility	I7	Groundwater	Impacts to groundwater are similar to the background environment.
ROB0050443	Infrastructure	Beneficiation Facility	I7	Land and water contamination	There is no residual soil contamination on site that is incompatible with intended final land use or that poses a threat of environmental harm.

Number	Final Land Use Domain	Mining Domain	Spatial Reference (e.g. A3)	Rehabilitation Objective Category	Rehabilitation Objective
ROB0050444	Infrastructure	Beneficiation Facility	I7	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
ROB0050445	Infrastructure	Beneficiation Facility	I7	Landform stability	Landform that is commensurate with surrounding natural landform
ROB0050446	Infrastructure	Beneficiation Facility	I7	Landform stability	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 or negatively impact the community socially or economically.
ROB0050447	Infrastructure	Beneficiation Facility	I7	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
ROB0050448	Infrastructure	Beneficiation Facility	I7	Removal of infrastructure	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.
ROB0050449	Infrastructure	Beneficiation Facility	I7	Removal of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community.
ROB0050450	Infrastructure	Beneficiation Facility	I7	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality.
ROB0050451	Infrastructure	Beneficiation Facility	I7	Water Approvals	Structures that take or divert water such as final voids, dams, levees etc. are appropriately licensed (e.g. under the Water Management Act 2000) and where required ensure sufficient licence shares are held in the water sources) to account for water take.
ROB0034046	Final Void	Active Mining Area	J5	Ecological rehabilitation	Ecological rehabilitation objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native vegetation community of Box-Gum Woodland and native riparian vegetation found in the local area.
ROB0034047	Final Void	Active Mining Area	J5	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native vegetation communities of Box Gum Woodland native riparian vegetation found in the local area.
ROB0034048	Final Void	Active Mining Area	J5	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.

Number	Final Land Use Domain	Mining Domain	Spatial Reference (e.g. A3)	Rehabilitation Objective Category	Rehabilitation Objective
ROB0034049	Final Void	Active Mining Area	J5	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land (original rough grazing land capability) .
ROB0034050	Final Void	Active Mining Area	J5	Groundwater	Groundwater quality is similar to background water quality.
ROB0034051	Final Void	Active Mining Area	J5	Groundwater	Impacts to groundwater are similar to the background environment.
ROB0034052	Final Void	Active Mining Area	J5	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
ROB0034053	Final Void	Active Mining Area	J5	Landform stability	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 or negatively impact the community socially or economically. Landform that is commensurate with surrounding natural landform
ROB0034054	Final Void	Active Mining Area	J5	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
ROB0034055	Final Void	Active Mining Area	J5	Removal of infrastructure	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.
ROB0034056	Final Void	Active Mining Area	J5	Retention of Infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community.
ROB0034057	Final Void	Active Mining Area	J5	Surface water	Runoff water quality from mine site is similar to , or better than the pre-disturbance runoff water quality.
ROB0034058	Final Void	Active Mining Area	J5	Water approvals	Structures that take or divert water such as final voids, dams, levees etc. are appropriately licensed (e.g. under the Water Management Act 2000) and where required ensure sufficient licence shares are held in the water sources to account for water take.

4.3 Rehabilitation Completion Criteria

Completion criteria are objective target levels or values assigned to a variety of indicators (e.g., slope, species diversity, percent groundcover), which can be measured to demonstrate progress and ultimate success of rehabilitation. As such, they provide a defined end point, at which a point in time rehabilitation can be deemed successful and the lease relinquishment process can proceed. The draft rehabilitation completion criteria for all areas of Escott are listed in **Table 10**.

These completion criteria will be utilised to demonstrate achievement of rehabilitation objectives. It is noted that the completion criteria may be subject to refinement as rehabilitation progresses, including as an outcome of ongoing consultation with the relevant stakeholders, closure studies yet to be completed, and continuous improvement processes informed by rehabilitation monitoring results. The achievement (or otherwise) of the completion criteria will be monitored and reported with Annual Rehabilitation Reports.

Closure criteria have been informed by the following information:

- Relevant conditions of ML1356;
- Rehabilitation guideline documents including:
    - *Form and way: Rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan for large mines;*
    - *Guideline: Rehabilitation objectives and rehabilitation completion criteria;*
- Completion criteria from the previously approved Escott MOP;
- Similar rehabilitation projects; and
- Specific information collected to date during detailed planning investigations.

It is noted that the rehabilitation completion criteria for Escott will remain in draft until approved by the RR. It is noted that ZAPL has committed to submitting final rehabilitation completion criteria for approval no later than three years prior to the proposed completion of rehabilitation for the whole or any identified part of Escott. This submission will align with the timing of the Forward Program that covers the relevant rehabilitation period, in accordance with clause 15(3) of Schedule 8A of the Mining Regulation 2016.

Once approved, **Table 10** will be updated based on the approved ROBJs and Completion Criteria.

Table 10: Escott Draft Rehabilitation Completion Criteria

Final Land Use Domain	Mining Domain	Rehabilitation Objective (Describe the Desired Feature and/or Characteristics of the Final Land Use Domain)	Indicator (Specific Attribute Associated with the Objective)	Rehabilitation Completion Criteria (Benchmark for the Indicator, Based on Analogue Data where Appropriate)	Example Justification Validation Method (Evidence that the Benchmark has been Achieved)
Decommissioning					
All Mining Domains					
All final land use domains	Infrastructure Area	All surface infrastructure will be decommissioned and removed, unless approved otherwise by the Secretary.	Potential hazards (e.g. electrical, mechanical) have been effectively isolated and secured.	Hazards isolated and secured.	Statement provided by suitably qualified engineer.
			Infrastructure not required for final land use removed.	Relevant infrastructure removed.	Plan showing redundant structures photos.
			Roads not required for final land use are removed.	Roads removed unless permitted for agricultural or other approved activity.	• Plan showing redundant structures. • Photos.
			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.
			Infrastructure not required for final land use removed.	Relevant infrastructure removed.	• Plan showing redundant structures. • Photos.
		All infrastructure that is to remain as part of the final land use is safe and does not pose any hazard to the community and is approved by the Secretary for retention.	The structural integrity of the infrastructure is suitable and safe for use as part of the intended final land use.	The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be suitable and safe as part of the intended final land use.	Engineering report/statement, photos, risk assessment verifying modes of failure are adequately addressed to minimise risks to public safety or the environment.

Final Land Use Domain	Mining Domain	Rehabilitation Objective (Describe the Desired Feature and/or Characteristics of the Final Land Use Domain)	Indicator (Specific Attribute Associated with the Objective)	Rehabilitation Completion Criteria (Benchmark for the Indicator, Based on Analogue Data where Appropriate)	Example Justification Validation Method (Evidence that the Benchmark has been Achieved)
		Domain safe and free from hazardous materials.	Contamination will be appropriately remediated so that appropriate guidelines for land use are met.	Hazards isolated and secured.	Statement provided by suitably qualified engineer.
Landform Establishment					
Domain – Rehabilitation Area – Woodland					
Final Void	Active Mining Area (Open cut void)	The size, depth and slopes of the final void will be minimised to be accordance with the approved final landform.	Landforms are surveyed and demonstrated to be constructed in accordance with the final landform plan.	The western batters of the mine void(s) are benched at 12 metre intervals with 8-metre-wide berms remaining Reshaping proposed to form an overall slope angle of approximately 45 degrees.	Survey verifies final landform construction in accordance with the Approved Final Landform plan.
				The eastern batters cut in overburden will be mined/battered back to approximately 1:3 and grassed. Formation of safe slopes down to the water filled void(s) for grazing.	
				The 1:10 access ramps will remain. Drainage will be re-directed back into the mined-out voids that will retain surface water run-off. Ramps being kept for easy vehicular access. Proposed drainage will prevent erosion and/or contamination because of surface water run-off.	
Growth Medium Development					
Domain – Rehabilitation Area – Woodland					

Final Land Use Domain	Mining Domain	Rehabilitation Objective (Describe the Desired Feature and/or Characteristics of the Final Land Use Domain)	Indicator (Specific Attribute Associated with the Objective)	Rehabilitation Completion Criteria (Benchmark for the Indicator, Based on Analogue Data where Appropriate)	Example Justification Validation Method (Evidence that the Benchmark has been Achieved)
Agricultural – Grazing (Rehabilitation Area – Pasture)	All domains	Growth media is appropriate to support the final land use.	Soil characteristics in the range of pre-mining soil characteristics.	Application of respective amelioration actions described in Table 1 of Appendix A to achieve desired values. The combination of parameters will be used to determine the progress of amelioration of soil and are key parameters associated with growth of native species and therefore are important for rehabilitation success.	• Rehabilitation records. • As constructed survey.
Phase 5 – Ecosystem and Land Use Establishment					
All Final Land Use Domains					
All Domains	All Domains	Weeds and feral animal species do not present a risk to rehabilitation.	Weed presence.	Monitoring verifies there are no significant weed infestations and weeds do not comprise a significant proportion of the species in any stratum.	Rehabilitation monitoring reports.
				Records indicate that noxious weeds are controlled.	
			Feral animal density.	Records indicate that feral animal pests are controlled.	
		Erosion does not present a safety hazard or compromise the post mining land capability.	Erosion and Settlement Control.	Visual monitoring indicates that there is no significant erosion present that constitutes a safety hazard or compromises the intended final land use.	• Water quality testing. • Photographs.
		Soil fertility and soil structure is comparable between rehabilitation areas and reference sites.	Soil Quality.	Testing verifies that soil characteristics (pH, EC and Exchangeable Sodium Percentage (ESP), nitrogen and phosphorus) are within 20% of analogue sites.	Soil Sampling, testing and analyses of other contributing factors by a qualified soil scientist or agronomist.

Final Land Use Domain	Mining Domain	Rehabilitation Objective (Describe the Desired Feature and/or Characteristics of the Final Land Use Domain)	Indicator (Specific Attribute Associated with the Objective)	Rehabilitation Completion Criteria (Benchmark for the Indicator, Based on Analogue Data where Appropriate)	Example Justification Validation Method (Evidence that the Benchmark has been Achieved)
		Fauna habitat available.	Presence of a range of fauna habitats.	Fauna habitat is available.	Rehabilitation Records.
Domain – Rehabilitation area – Woodland					
Native Ecosystem	All domains	Assisted revegetation of disturbed areas. Stable and permanent landform established. Runoff and/or leachate from the landlord are non-polluting. Vegetation consistent with the Box Gum Grassy Woodland. Soils, hydrology, and woodland ecosystem with maintenance needs no greater than those of a local analogue site.	• Species composition. • Ground Cover. • Surface Cover. • Vegetation density. • Vegetation health. • Weeds. • Soils capable of supporting pasture. • Area capable of retaining stock. • Access made safe for public and livestock.	• Ground cover percentage is comparable to that of the analogue sites. • The diversity of species within the rehabilitated pastures is representative of the specified species mix and comparable to that of the analogue sites. • Rehabilitation monitoring verifies species diversity is characteristic of Box Gum Grassy Woodland. • Number of weeds species diversity and surface area cover ≤ analogue site. • Soil test results comparable to analogue sites. • No access to high walls.	• Rehabilitation monitoring records. • Photographs. • Soil Sampling.
Ecosystem and land use Development					
Domain – Rehabilitation area – Woodland					
Native Ecosystem	All domains	Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land.	Ground Cover. Species composition. Vegetation health. Weeds.	• Comparison with undisturbed areas. Aim for 75% ground cover of existing grass and ground cover species recorded in Appendix A. • Analogue sites provide an appropriate guide for pre-disturbance values and therefore a realistic goal for rehabilitation.	Rehabilitation monitoring reports.

Final Land Use Domain	Mining Domain	Rehabilitation Objective (Describe the Desired Feature and/or Characteristics of the Final Land Use Domain)	Indicator (Specific Attribute Associated with the Objective)	Rehabilitation Completion Criteria (Benchmark for the Indicator, Based on Analogue Data where Appropriate)	Example Justification Validation Method (Evidence that the Benchmark has been Achieved)
		Species composition of revegetated areas is comparable with undisturbed areas or Box Gum Grassy Woodland.	Species diversity.	• Comparisons with undisturbed areas of Box Gum Grassy Woodland. • Analogue sites provide an appropriate guide for pre-disturbance values and therefore a realistic goal for rehabilitation.	Rehabilitation monitoring reports.
			Species Composition.		
			Ecosystem growth and natural recruitment.		
		Weed control.	Weed presence.	Number of weeds species diversity and surface area cover ≤ analogue site.	Rehabilitation monitoring reports.

4.4 Rehabilitation Objectives and Rehabilitation Completion Criteria – Stakeholder Consultation

4.4.1 Stakeholder Engagement

Council, the Environment Protection Authority (EPA), Werris Creek Coal Pty Ltd (Werris Creek) and the local landholders of the land parcels adjacent to the Mine are recognised stakeholders in relation to Escott.

ZAPL maintains an active relationship with the Council and all mining operations, and rehabilitation activities are being conducted in accordance with the existing Development Consents listed in **Table 11**.

The land parcels subject to Escott are owned by Werris Creek. ZAPL maintains a great relationship with Werris Creek and engages in regular consultation with them to ensure all rehabilitation activities are completed in accordance with the expectations and standards required.

4.4.1.1 Relevant Statutory Authorities

ZAPL has consulted with and will continue to consult with the following regulatory bodies in relation to their operations and rehabilitation:

- RR;
- EPA; and
- Council.

4.4.1.2 Other Key Stakeholders

ZAPL will continue to consult with several community groups and landholders in relation to the Escott operations and rehabilitation, including:

- Local community and affected landowners; and
- Werris Creek.

4.4.2 Proposed Future Consultation

Consultation will continue with stakeholders during the life of mine, in accordance with the Stakeholder Engagement Plan. **Table 11** presents a summary of the proposed future consultation activities key stakeholders.

Table 11: Summary of Proposed Future Stakeholder Engagement Activities

Stakeholder	Activities
RR	• Ongoing revisions of the RMP. • Annual Rehabilitation Report. • Forward Program. • Detailed Mine Closure Planning.
Council	• Approval Matters. • Detailed Mine Closure Planning.
Local community and affected landowners	• Detailed Mine Closure Planning.
Werris Creek	• Detailed Mine Closure Planning.

5.0 Final Landform and Rehabilitation Plan

5.1 Final Landform and Rehabilitation Plan

In accordance with the requirements of the RMP Form and Way, a Final Landform and Rehabilitation Plan has been prepared to show the proposed final land use and final landform for Escott (refer **Figure 6** and **Figure 7).**

ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

FINAL LAND USES AND LANDFORM FEATURES

FIGURE 6

AMA 1012 Authorisation

Previously submitted Final Land Use areas ROBJ0001323 approved November 2023 (no changes)

ML1356 Authorisation

Haul Road
Final Land Use:
Final Land Use Domain - Infrastructure
Mining Domain - Infrastructure Area
Spatial Reference - I1

Existing Dam
Final Land Use:
Final Land Use Domain - Water Storage (excluding final void)
Mining Domain - Water Management Area
Spatial Reference - G3

Processing Plant
Final Land Use:
Final Land Use Domain - Infrastructure
Mining Domain - Beneficiation Facility
Spatial Reference - I7

Area of Processing Plant not included in AMA 1012

LEGEND

- Development Consent Boundary
- Current Authorisations
- Additional Processing Plant Area (outside of AMA 1012 boundary)

Final Landform Feature

- Final Void

Final Land Use Domain

- Final Void
- Infrastructure
- Native Ecosystem
- Water Management Areas
- Water Storage (Excluding Final Void)

Data sources:
NSW SS
Basemap: Maxar
Project Approval Boundary: © State Government of NSW and Department of Regional New South Wales 2019
High resolution imagery: Zeolite Mine - Stewart Surveys (2023 & 2025)

0 150 300 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:10,000 at A3
Project Number:	630.30206
Date Drawn:	19-Sep-2025
Drawn by:	JH

SLR

Path: H:\Projects-SLR\630-SrvNTL\630-NTL\630.30206.00000 Zeolite Australia\06 SLR Data\01 GIS\GIS\63030206_Zeolite_RMP_ARR_FP_2025\63030206_Zeolite_RMP_ARR_FP_2025.aprx\63030206_F6_FinalLandformFeatures

ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

FINAL LANDFORM CONTOURS

FIGURE 7

LEGEND

- Development Consent Boundary
- Current Authorisations
- Additional Processing Plant Area (outside of AMA 1012 boundary)
- Contour (5m interval)
- Contour (1m interval)

Data sources:
NSW SS
Basemap: Maxar
Project Approval Boundary: © State Government of NSW and Department of Regional New South Wales 2019
High resolution imagery: Zeolite Mine - Stewart Surveys (2023 & 2025)

0 150 300 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:10,000 at A3
Project Number:	630.30206
Date Drawn:	19-Sep-2025
Drawn by:	JH

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6.0 Rehabilitation Implementation

6.1 Life of Mine Rehabilitation Schedule

The rehabilitation schedule over the life of mine (LOM), from the commencement of the RMP until expected lease relinquishment is described in the following sections. A snapshot of mine progression is shown in **Figure 8** to **Figure 12**.

Rehabilitation planning and execution is undertaken by the experienced personnel employed by ZAPL. Where required, ZAPL engages experienced contractors and consultants to provide specialist advice.

Rehabilitation planning is integrated into mine planning using the ZAPL Rehabilitation Plan to maximise the utilisation of salvaged materials, seasonal conditions, rehabilitation effectiveness and the chances of successful rehabilitation campaigns within the Forward Program.

Estimated timing for the key final landform establishment activities, particularly associated with highwalls, final void and the overburden dump is towards the end of the LOM.

Investigations and studies to improve rehabilitation performance and progress towards achieving the final land use will commence when rehabilitation is included in the Forward Program (towards the end of the LOM; refer to LOM Plans). Planning for investigations and studies will be facilitated by implementation of the Rehabilitation Plan.

It is noted that there are limited opportunities for progressive rehabilitation at Escott for an extended period (beyond the current Forward Program). This is due to the small scale of operations, the confined area of mining activities and a minimisation of disturbance by focusing production within a small area. It is also noted that infrastructure associated with Escott is required for the operational LOM.

6.1.1 Infrastructure

Construction activities planned during the LOM for approved infrastructure at the processing plant include:

- Construction of a high bay storage shed to the south of the existing office and crib rooms and to the north of the existing on-site dwelling to provide additional general all-weather storage;
- Installation of a water tank; and
- Formalisation and minor realignment of existing internal haul road with associated stormwater infrastructure works and intersection upgrade at Escott Road.

Other infrastructure upgrades may be subject of future modifications during the LOM.

Some infrastructure will be decommissioned following the close of mining activities. Infrastructure that supports or facilitates the approved post mining land use will be retained. Planning for infrastructure decommissioning will be included as part of a Decommissioning Strategy and Contamination Assessments that form part of the detailed mine closure process.

6.1.2 Mining Activities

Mining is currently approved under ML1356 at Escott up until 1 August 2046 and incorporates the following assumptions and principles that are relied on for the development of the LOM rehabilitation schedule to ensure that rehabilitation is undertaken progressively and as soon as reasonably practicable:

- Continued mining of the northern block at rate of up to 30,000 tonnes per annum (tpa);
- Operation of a processing plant to produce saleable crushed and screened product;
- ROM material is blasted zeolite rock in the 100 millimetre (mm) to 500mm size range. This material is transported approximately 2.5km by truck to the Zeolite Mineral Processing Plant located within AMA1012; and
- Rock and overburden produced from the north block mine will be transported to the north block mine waste emplacement area 50m to the east of the north block mine.

ZAPL is considering opportunities to improve operational efficiencies as well as processing overburden within the existing pit or on the overburden stockpile/dump for sale as a separate product (gravel/road base/soil conditioner).

6.1.3 Mine Operations

Mine operations are undertaken using conventional open cut mining methods.

Zeolite and overburden are drilled and blasted using contract services on a campaign basis. All blasts are monitored at either 'Escott homestead' or the Zeolite Mineral Processing Plant residence for ground vibration peak particle velocity (PPV) and blast overpressure.

At a production rate of up to 15,000 tpa zeolite, one annual blast is likely to meet production requirements for a 12-to-18-month period. Typical drill and blast campaigns involving up to 10,000 bank cubic metre (bcm) of rock have to date utilised small diameter (89 to 102mm) blast holes of between 6 and 12 metres in depth, in patterns varying between 3 and 4.5 metres subject to ground conditions.

All blasting will be conducted in accordance with a blast management plan to ensure the safety of any occupants of 'Escott homestead' and to minimise potential impacts from noise and vibration.

Conventional equipment including D7 to D9 size bulldozer, 30 to 50 tonne excavators, (with attachments including rock breaker, sieve and crusher buckets), frontend loader and both "on road" and "off road" dump trucks (10 to 35 tonne capacity) will continue to be used to excavate and haul materials to run of mine (ROM) stockpiles at the processing plant or to the nominated overburden waste emplacements.

In accordance with EPL6378 - Condition L4, mining activities are carried out between the hours of 0700 and 1900 Monday to Friday and between 0700 and 1900 on Saturdays as required. No mining activities are conducted on Sundays and Public Holidays.

ZAPL will maintain relevant landholder and leaseholder agreements regarding potential noise, dust and visual impacts at 'Escott homestead' associated with mine operations.

Any access tracks created for the mining phases follow specifications according to the relevant guidelines and are kept to a minimum and positioned so that they do not cause unnecessary damage. Once they are no longer being used, they will be rehabilitated according to the areas final land use domain.

At the Zeolite Mineral Processing Plant:

- Material is received on the ROM pad, from where it can be stockpiled, crushed using two mobile crushing units, or stored under roof in an open sided storage shed;
- Material is crushed in the crushing shed, and/or pulverised in the Ball Mill;
- The Crushing Shed produces zeolite crushed to a specified size, material to 2mm size before it goes to the Ball Mill;

- The Ball Mill has two large pulverisers which can pulverise material to 75 micron or smaller; and
- Product is bagged in the large shed to the north of the Ball Mill, (typically bulka bags) and placed onto pallets. There is a large racking system used to store product. Trucks drive into this shed and can be loaded both sides at once.

ZAPL is considering opportunities to process overburden within the existing pit or on the overburden stockpile/dump for sale as a separate product (gravel/road base/soil conditioner).

Environmental management and compliance aspects of operations are managed in accordance with the site Operational Environmental Management Plan.

6.1.4 Mine Production Schedule

The assumptions and principles that have been used to develop the LOM rehabilitation schedule are detailed in **Table 12**.

Table 12 - Mine Production Schedule

Material	Unit	Year 1	Year 2	Year 3	Years 4 to 9	Years 9 to 13
Rock/overburden (waste rock)	m^3	15,000	10,000	5,000	8,000	TBD
Zeolite	Mt	0.02	0.02	0.02	0.02	TBD

Importantly, the staging of the open cut mining operations will be determined by the requirements of the minerals market. As these requirements are likely to vary over the LOM, the development sequence of the open cut, extraction rates and rehabilitation areas may vary.

ZAPL is currently undertaking mine optimisation planning activities, which may include infrastructure upgrades and conducting mining operating is additional areas. These works have not been included within the Forward Program. In conjunction with the mine optimisation planning, ZAPL has commenced works on establishing conceptual closure process. Outcomes of these activities may change the production schedule for Escott.

ZEOLITE MINE
ANNUAL REHABILITATION REPORT 2025

CURRENT STATUS OF MINING AND REHABILITATION

Figure 8

LEGEND

- Project Approval Boundary
- Current Authorisations

Disturbance

- Beneficiation Facility
- Infrastructure Area
- Overburden Emplacement Area
- Active Mining Area (Open cut void)
- Water Management Area

Rehabilitation Phase

- Ecosystem and Land Use Development

Data sources:
NSW SS
Basemap: Maxar
Project Approval Boundary: © State Government of NSW and Department of Regional New South Wales 2019
High resolution imagery: Stewart Surveys (2023 & 2025)

0 150 300 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:10,000 at A3
Project Number:	630.30206
Date Drawn:	11-Sep-2025
Drawn by:	JH

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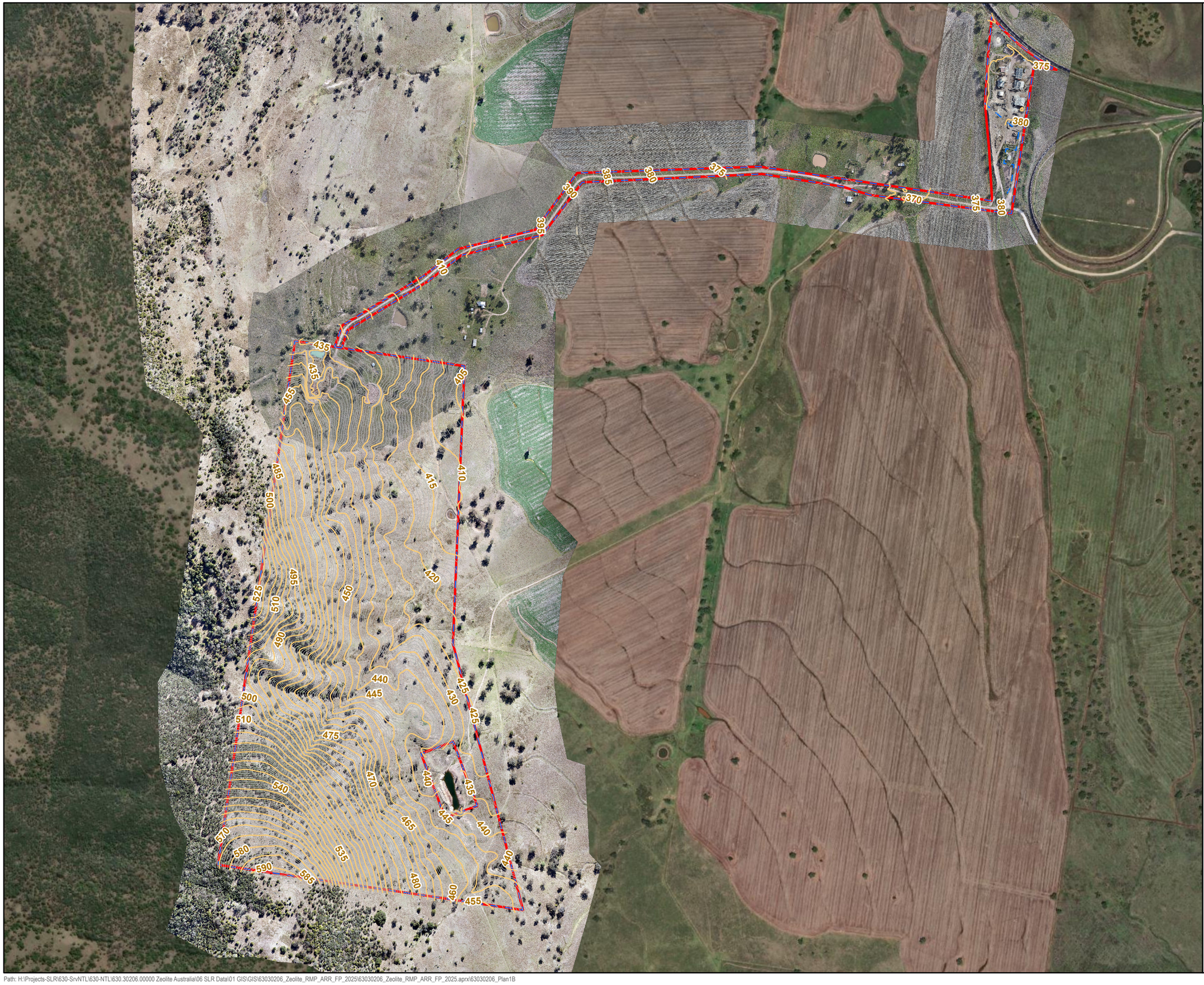
ZEOLITE MINE
ANNUAL REHABILITATION REPORT 2025

CURRENT LANDFORM CONTOURS

Figure 9



LEGEND

- Project Approval Boundary
- Current Authorisations
- Current Landform Contours (5m interval)
- Current Landform Contours (1m interval)

Data sources:
NSW SS
Basemap: Maxar
Project Approval Boundary: © State Government of NSW and Department of Regional New South Wales 2019
High resolution imagery: Stewart Surveys (2023 & 2025)

0 150 300 m

Coordinate System:	GDA2020 MGA Zone 56
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ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

LOM PLAN 1 REHABILITATION AND DISTURBANCE AS END OF 2026

FIGURE 8

LEGEND

- Project Approval Boundary
- Mine Workings Extent
- Active Mine Disturbance

Final Landuse Domain

- Native Ecosystem

Data sources:
NSW SS
Basemap: Maxar
Project Approval Boundary: © State Government of NSW and Department of Regional New South Wales 2019
High resolution imagery: Stewart Surveys (2023 & 2025)

0 100 200 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:7,000 at A3
Project Number:	630.30206
Date Drawn:	19-Sep-2025
Drawn by:	JH

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ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

LOM PLAN 2 REHABILITATION AND DISTURBANCE AS END OF 2031

FIGURE 9

LEGEND

- Project Approval Boundary
- Mine Workings Extent
- Active Mine Disturbance
- Ecosystem and Land Use Establishment

Final Landuse Domain

- Native Ecosystem

Data sources:
NSW SS
Basemap: Maxar
Project Approval Boundary: © State Government of NSW and Department of Regional New South Wales 2019
High resolution imagery: Stewart Surveys (2023 & 2025)

0 100 200 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:6,444 at A3
Project Number:	630.30206
Date Drawn:	19-Sep-2025
Drawn by:	JH

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ZEOLITE MINE REHABILITATION MANAGEMENT PLAN

LOM PLAN 3 REHABILITATION AND DISTURBANCE AS END OF 2036

FIGURE 10

LEGEND

- Project Approval Boundary
- Mine Workings Extent

Final Landuse Domain

- Native Ecosystem

Final Landform Feature

- Final Void

Data sources:
NSW SS
Basemap: Maxar
Project Approval Boundary: © State Government of NSW and Department of Regional New South Wales 2019
High resolution imagery: Stewart Surveys (2023 & 2025)

0 100 200 m

Coordinate System:	GDA2020 MGA Zone 56
Scale:	1:7,000 at A3
Project Number:	630.30206
Date Drawn:	19-Sep-2025
Drawn by:	JH

SLR

Path: H:\Projects-SLR\630-SrvNTL\630-NTL\630.30206.00000 Zeolite Australia\06 SLR Data\01 GIS\GIS\630302O6_Zeolite_RMP_ARR_FP_2025\630302O6_Zeolite_RMP_ARR_FP_2025.aprx\630302O6_F10_LOMPlan3_RehabDisturbance_2036

6.2 Phases of Rehabilitation and General Methodologies

Achievement of the agreed post mining land use will be reached through a series of conceptual rehabilitation phases. As defined by the RMP Form and Way, the rehabilitation phases are presented in **Table 13.**

Table 13: Rehabilitation Phases

Rehabilitation Phase	Description
Phase 1: Active Mining	This phase is associated with active mining operations across the domains.
Phase 2: Decommissioning	This phase of rehabilitation includes activities associated with the removal of mining infrastructure, unless agreed to be retained, and the removal, remediation or management of contaminated and hazardous materials.
Phase 3: Landform Establishment	This phase of rehabilitation consists of the processes and activities required to construct the approved final landform. In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (that is, rock raking or ameliorating sodic materials).
Phase 4: Growth Medium Development –	This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short-lived pioneer species) to ensure achievement of the approved or, if not yet approved, the proposed: • Rehabilitation objectives; • Rehabilitation completion criteria; and • Final landform and rehabilitation plan. This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.
Phase 5: Ecosystem and Land Use Establishment	This phase of rehabilitation consists of the processes to establish the final land use following construction of the final landform. For vegetated land uses this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control.
Phase 6: Ecosystem and Land Use Development	This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved or, if not yet approved, the proposed: • Rehabilitation objectives; • Rehabilitation completion criteria; and • Final landform and rehabilitation plan. For vegetated land uses this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile. This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.
Phase 7: Rehabilitation Completion (sign-off)	The final phase of rehabilitation when a rehabilitation area has achieved the final land use for the mining area: • As stated in the approved rehabilitation objectives and the approved rehabilitation completion criteria; and • As spatially depicted in the approved final landform and rehabilitation plan. Rehabilitation areas may be classified as complete when the RR has determined in writing that rehabilitation has achieved the final land use following submission of the relevant application by the lease holder.

The following chapters provide detailed descriptions of the proposed rehabilitation actions, methods and controls to rehabilitate each mining domain through each phase of rehabilitation. These descriptions should be considered in conjunction with the Forward Program and the Rehabilitation Plan.

6.2.1 Active Mining Phase

Appropriate measures and strategies are implemented during the active phase of mining to enhance rehabilitation outcomes. Works in this phase are summarised below.

6.2.1.1 Soils and Materials

Management protocols for soils and subsoils are implemented to minimise risks and enable soil resources within disturbance areas to be characterised, stripped, stockpiled and re-used appropriately. The management protocols also enable consideration of the main soil types observed within the project disturbance boundary and any specific constraints or management measures to be adopted for each soil type.

Seasonal and weather conditions when salvaging biological resources is considered during clearing. No clearing will occur during adverse weather conditions.

Soil Resources

Soil characterisation has not yet been undertaken for Escott.

Soil Resources Balance

Estimated topsoil volumes available for rehabilitation include:

- North block: 260m^3 or 300T of topsoil materials assuming 10mm depth. Assuming 70% recovery approximately 200T could be pre-stripped and stockpiled; and
- Waste emplacements, stockpiling and processing sites (approximately 2.4ha): 480m^3 or 500T of topsoil materials assuming 20mm depth. Assuming 70% recovery 350T could be pre-stripped and stockpiled.

A topsoil inventory review and characterisation analysis (including a geochemical and soil biota constraints and opportunities analysis) will be undertaken within 3 years of planned rehabilitation activities being undertaken (included in Forward Program) to confirm topsoil suitability, amelioration, revegetation methodologies and quantities required for rehabilitation activities.

Management

Management of topsoil will include:

- A ground disturbance permit will be prepared;
- The area to be stripped of soil will be surveyed and clearly demarcated;
- Where practical, stripped material will be placed directly onto rehabilitation areas to avoid the requirement for stockpiling and costs with double handling;
- Topsoil to be stripped when soils are moist;
- As part of the planning process, temporary drainage, sediment control and structures to prevent erosion will be implemented;
- Stockpiles will be constructed <2m in height and set out as windrows;
- Weeds will be actively managed;

- Stockpiles will be seeded or other suitable dust control measures will be utilised, as soon as possible;
- Erosion and sediment controls will be installed and remain in place at least until the stockpile is used, or it re-vegetates naturally;
- Diversion of clean water around Site and back into natural flow channels;
- Mulching or the installation of biodegradable blankets on high-erosion risk areas; and
- Planting of sterile cover species e.g., Sterile Rye Corn.

Where topsoil is unavailable or of insufficient quality, subsoil spoil may be able to be ameliorated to form a suitable growing media.

6.2.1.2 Flora

Resources

Salvage of flora resources is limited due to the scattered trees and dead timber located on the site as well as the management practice of avoiding clearing of mature tress wherever possible.

However, where possible, felled trees and dead timber will be salvaged and re-distributed within rehabilitation areas to enhance the bushland habitat values.

Seed is also salvaged as a resource:

- Native seed collection is undertaken opportunistically and where practicable. Seed collection is generally undertaken by suitable experienced or qualified person; and
- Natural regeneration has been shown to be successful, with sufficient seed bank reserves observed.

Seed will be purchased from local suppliers to supplement seed collected, as required.

Testing and treatment of seeds/tubestock will be undertaken based on recommendations from suitably qualified experts.

Management

Risks of impacts to flora are avoided, mitigated and managed through the implementation of clearing protocols, including a Ground Disturbance Permit. Clearing protocols will include:

- Clearly identifying vegetation to be retained within on all design, construction and operational drawings;
- The removal of mature trees should be avoided wherever possible;
- Stockpiling, storage, disposal or mixing of materials/liquids, parking of vehicles or machinery or positioning of sheds or offices within the drip lines of trees on-site will be avoided;
- Protection of trees will be in accordance with Australian Standards AS 4970-2009 *'Protection of Trees on Development Sites';*
- Topsoil and any woody debris displaced by mining operations to be retained to allow for its re-establishment in disturbed areas during the rehabilitation phase to assist re-colonisation from soil seed banks;
- Weed control techniques such as vehicle wash-downs, ongoing monitoring and treatment if required;
- Erosion and sedimentation controls;

- Ensure that the placement of any mine related infrastructure minimises impacts to the surrounding vegetation i.e., locate infrastructure and access tracks so that a minimal number of mature trees are removed;
- Prior to clearing, a qualified ecologist is consulted regarding clearing method, to assist in the relocation of any displaced fauna species and to ensure that clearing works do not unnecessarily encroach on adjacent native vegetation;
- A site Rehabilitation Plan has been prepared that allows for the disturbed areas on site to be effectively restored in parts to the agreed post mining land use; and
- Trees felled, bark stripped, cut, ringbarked, or destroyed will be done with the permission of the land leaseholder and will not be done unless necessary for operations. The right approvals and licenses will be gained before using any removed timber.

6.2.1.3 Fauna

Management

Fauna is managed during the active mining phase to minimise impacts and ensure rehabilitation objectives and outcomes related to biodiversity are achieved.

Prior to clearing, a qualified ecologist is consulted regarding the clearing method, to assist in the relocation of any displaced fauna species and to ensure that clearing works do not unnecessarily encroach on adjacent native vegetation.

Resources

Salvaged habitat features will be used throughout rehabilitation and offsets to create habitat to achieve the specific fauna outcomes.

6.2.1.4 Rock and Overburden Emplacement

Escott will continue to be mined with an overburden to zeolite ratio of 3:1 to a depth of 30m.

Rock and overburden are placed on the mine waste emplacement area 50m to the east of the north block open pit **(Figure 2**).

Overburden is used as backfill for the previous mining area and the north block open pit itself to reduce the operations disturbance footprint.

6.2.1.5 Waste Management

Wastes produced at Escott are comprised of:

- General domestic-type wastes from on-site buildings and routine maintenance consumables;
- Scrap building materials;
- Batteries, tyres, vehicle parts;
- Oils and grease; and
- Sewage.

Domestic-type wastes will be collected and disposed of by a licensed waste disposal contractor, with recyclable materials separated, where possible.

Staff onsite will be equipped to manage hydrocarbon waste, such as spills. Spill kits are available to contain and deal with spills immediately. Hydrocarbon waste is disposed of off-site by a licenced contractor.

Waste management education and training programs for all staff on site will encompass issues ranging from waste reduction, through to correct disposal of waste materials.

6.2.1.6 Geology and Geochemistry

Escott targets a zeolitized tuff with an interbedded sequence of sandstone and conglomerate. Mineable reserves have been identified to a depth of 40m.

6.2.1.7 Materials Prone to Spontaneous Combustion

The risk of a spontaneous combustion event at Escott is negligible given the geology and geochemistry of the site. Materials prone to spontaneous combustion (particularly adjacent coal measures) are not exposed by mining activities at Escott.

A detailed spontaneous combustion assessment, specific for Escott will be undertaken in conjunction with future studies associated with AL7.

6.2.1.8 Materials Prone to Generating Acid Mine Drainage

The risk of acid mine drainage (AMD) at Escott is negligible given the geology and geochemistry of the site. Materials prone to generate AMD (particularly adjacent coal measures) are not exposed by mining activities at Escott.

Assessments and subsequent management strategies, specific for Escott will be undertaken in conjunction with studies associated with AL7 or as part of detailed mine closure planning. These include:

- Acid mine drainage;
- Groundwater/surface water monitoring and management strategy;
- Geochemically unstable materials;
- Capping Strategies;
- Geotechnical Stability;
- Erosion Stability and Modelling; and
- Water Management.

6.2.1.9 Ore Beneficiation Waste Management (Reject and Tailings)

Tailings

Escott operations do not result in the production of rejects or tailings and there is no tailings storage facility. In the event future operations (subject to further approvals), require a tailings storage facility, ZAPL will consider:

- Geochemical and geotechnical constraints of tailings and tailings storage facilities construction materials, to enable management strategies to be implemented during the construction phase;
- Measures to control or limit the release of contaminants from the tailings storage facilities or other form of tailings containment;
- Deposition methods so that tailings consolidation/settlement is maximised during placement to reduce impacts from settlement post closure. Tailings deposition maintains environmental freeboard;
- Providing a final barrier to contain tailings and prevent release to environment, manage seepage and to support final land use; and

- Constructing a containment structure (embankments) and capping that is protected from scour/erosion from water movement resulting from rainfall.

Assessments and subsequent management strategies, specific for Escott will be undertaken in conjunction with studies associated with AL7 or as part of detailed mine closure planning. These include:

- Final Landform water management strategy; and
- Final Void monitoring and management strategy.

Overburden

Options for small quantities of overburden (crushed rock and aggregates) suitable for drill hole stemming, road and construction use are being investigated.

6.2.1.10 Erosion and Sediment Control

Key sources of erosion and sedimentation are generally related to surface water runoff from exposed surfaces, including cleared areas, stockpiles (soil and waste rock) and unsealed roads, and to a lesser degree caused by wind erosion from emplacement areas and stockpiles.

Erosion and sediment control at Escott is managed in accordance with the Managing Urban Stormwater Volume 1: Soils and Construction (Landcom 2004), Managing Urban Stormwater Volume 2E: Mines and Quarries (DECC 2008a) and the conditions of ML1356.

6.2.1.11 Ongoing Management of Biological Resources for Use in Rehabilitation

Biological resources such as native seeds and habitat features (stag trees, fallen logs and large flat rocks) will be managed to ensure viability for use in rehabilitation. Management measures include but are not limited to the management of weeds, effective storage, regular inspections and maintenance programs.

6.2.1.12 Mine Subsidence

Escott is in an area where no historic underground mining has been undertaken. Subsequently, no specific management controls or monitoring programs are considered necessary.

6.2.1.13 Management of Potential Cultural and Heritage Issues

Assessments to date (record search and visual inspection) indicate that no Aboriginal objects or sites have been identified in the area investigated. However, the following procedure is available in the event of a unexpected find:

- All relevant staff and contractors will be made aware of their statutory obligations for heritage under NSW *National Parks and Wildlife Act 1974* and the NSW *Heritage Act 1977*, which may be implemented as a heritage induction;
- The due diligence assessment must be kept by ZAPL so that it can be presented, if needed, as a defence from prosecution under Section 86(2) of the *National Parks and Wildlife Act 1974*;
- If unrecorded Aboriginal object/s are identified in the Project Area during works, then all works in the immediate area must cease and the area should be cordoned off. Heritage NSW will be notified so that the site can be adequately assessed and managed;

- In the unlikely event that skeletal remains are identified, work must cease immediately in the vicinity of the remains, and the area must be cordoned off. The proponent must contact the local NSW Police who will make an initial assessment as to whether the remains are part of crime scene or possible Aboriginal remains. If the remains are thought to be Aboriginal, Heritage NSW will be contacted. Heritage NSW, Heritage Consultants and local Aboriginal groups will be consulted to determine if the remains are Aboriginal or not; and a management plan must be developed in consultation with the relevant Aboriginal stakeholders before works recommence; and
- If, during development works, suspected European cultural heritage material is uncovered, work should cease in that area immediately. Heritage NSW will be notified and works only recommence when an approved management strategy has been developed.

6.2.1.14 Exploration Activities

Exploration activities will be undertaken in accordance with the requirements of the *Exploration Code of Practice: Rehabilitation* and the conditions of ML1356*:*

- All cored holes will be accurately surveyed and permanently marked in accordance with Department guidelines so that their location can be easily established;
- All holes cored or otherwise will be sealed to prevent the collapse of the surrounding surface;
- All drill holes will be permanently sealed with cement plugs to prevent surface discharge of groundwaters;
- If any drill hole meets natural or noxious gases it will be plugged or sealed to prevent their escape;
- If any drill hole meets an artesian or sub-artesian flow it will be effectively sealed to prevent contamination of aquifers;
- Once any drill holes cease to be used the hole will be sealed in accordance with Departmental guidelines. Alternatively, the hole will be sealed as instructed by RR; and
- Once any drill hole ceases to be used the land in its immediate vicinity will be left in a clean, tidy and stable condition.

6.2.2 Decommissioning

The Decommissioning Phase encompasses all works required to prepare land for rehabilitation including removal of any unnecessary built infrastructure, foundation and hardstand materials, services, equipment and materials including wastes and contamination.

Decommissioning, demolition, and removal of infrastructure from the mine site will generally be undertaken during the mine closure phase. Any infrastructure including dams, roads and buildings which is beneficial for future use by post mining landowners may be left in place subject to relevant landowner agreements and regulatory approvals.

Decommissioning and demolition activities will be appropriately planned and documented to ensure that appropriate approvals are in place for the works.

Further detail regarding demolition activities will be determined as the operation approaches closure. Detail in this regard will be reported in the Forward Program.

Following decommissioning, ZAPL will undertake to relinquish the mining authorisations and have the bonds addressed through site Rehabilitation Cost Estimate released.

Decommissioning, Heritage Assessments and Contamination Assessments will be included as part of a Decommissioning Strategy and Contamination Assessments that form part of the detailed mine closure process.

6.2.2.1 Site Security

Site security measures will be implemented during and following the decommissioning process to prevent access by members of the public and secure rehabilitation areas, including any heritage places or objects and any retained infrastructure items. Site security measures include:

- Site sign-in and induction processes;
- Maintenance of existing security fences and signage; and
- Restricted offroad access to rehabilitated areas.

6.2.2.2 Infrastructure to be Removed or Demolished

Site features, services and structures to be decommissioned and demolished to achieve the final land use are described in **Table 14**.

Table 14: Infrastructure to be Decommissioned

Code	Mining Domain	Description
1	Infrastructure	• Haul Road • Internal structures within site Zeolite Mineral Processing Plant sheds • Processing Plant

Demolition work on site will be carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.

The Detailed Mine Closure Planning process conducted over the LOM, will further identify key actions, assessments, studies, detailed designs, and regulatory approvals required to decommission and/or demolish built infrastructure.

6.2.2.3 Buildings, Structures and Fixed Plant to be Retained

Site features, services and structures to be retained for future use as part of the final land use are described in **Table 15.**

Table 15: Infrastructure to be Retained

Code	Mining Domain	Description
1	Infrastructure	Housing (Non Associated)
		Minor roads
		Site Sheds, Buildings, Etc within the Processing Plant
3	Water Management Area	Water tanks Dams

Closure Planning Process

The Detailed Mine Closure Planning process conducted over the life of mine will:

- Identify and obtain necessary approvals;
- Determine the structural integrity of the building/structure/infrastructure to be retained;
- Identify the associated short-term and long-term risks to public safety and the environment from the structures remaining in place, which should identify potential modes of failure;
- Address any potential residual risks such as potential for structures to fail;
- Engage (where required) a suitably qualified engineer to verify that any risks have been satisfactorily addressed; and
- Assessments and Studies noted in the ZAPL Rehabilitation Risk Assessment, Rehabilitation Management Plan, the RR bowtie risk assessment and associated Targeted Assessment Programs and the unique operational context of ZAPL.

6.2.2.4 Management of Carbonaceous/Contaminated Material

Carbonaceous Material

Escott is an open cut mineral mine and does not produce material with high rates of carbonaceous materials or properties. Subsequently, carbonaceous material is not applicable to Escott.

Contaminated Material

Contamination assessments will be completed as part of the detailed mine closure planning and decommissioning processes:

- ZAPL will engage a suitably experienced and qualified expert to conducted contamination and remediation assessments;
- Phase 1 and Phase 2 (where required) assessments will be undertaken for all features, services and structures within the Infrastructure Area domain;
- Subject to the findings and recommendations of the Phase 1 assessment, a targeted Phase 2 assessment will be completed; and
- If contamination is identified, a Remedial Action Plan will be developed, detailing remediation strategies for potential contamination.

Contaminated materials with be managed so that remedial works are completed prior to rehabilitation being completed within the relevant domains.

6.2.2.5 Hazardous Material

During decommissioning, hazardous materials (hydrocarbons and chemicals) will be managed and stored in accordance with regulatory requirements. Removal of hazardous materials will be undertaken by a licensed waste disposal contractor and disposed/recycled at a licensed waste facility. In the context of this site, it is unlikely that an abundance of hazardous material will become present.

6.2.2.6 Underground Infrastructure

Escott is an open cut mine and does not have any portals, decline entries, shafts, underground workings, underground equipment, or subsidence monitoring lines. Subsequently, underground infrastructure is not applicable to Escott.

6.2.3 Landform Establishment

Landform establishment is the process of shaping the final landform to a safe, stable and non-polluting landform that is appropriate for the desired final land use and consistent with the surrounding landscape. The final landform for Escott is shown on the Final Landform Plan in **Section 5**.

ZAPL will implement a range of measures to protect and secure substrates and revegetation areas from physical damage.

6.2.3.1 Water Management Infrastructure

Water management infrastructure will be installed as required within the final landform. Contour and catch drains are designed to collect surface runoff from rehabilitation or disturbed areas. Water management structures that will remain following mine closure are detailed on the Final Landform Plans in **Section 5**.

6.2.3.2 Final Landform Construction: General Requirements

The general requirements for final landform construction include:

- Operation of suitable equipment to prevent damage;
- Maintain safe access or restrict access as required in and around rehabilitated areas for all persons and stock;
- Limited occurrences of erosion events, consistent with what would be expected had the area not been disturbed;
- Seek guidance in regard to erosion and sediment controls, rehabilitation earthworks, topsoil management and revegetation activities;
- Rehabilitate all mined land to its original rough grazing land capability;
- Landform rehabilitation to achieve safe, stable, non-polluting and sustainable landforms. Slopes greater than 1 in 3 may require additional protection to restrict access including rock placement, bund walls or fencing as agreed with the landholder;
- Mine voids to remain in part as functional water storages;
- Revegetate to achieve 75% ground cover of existing grass and groundcover species found in pre-mining photographs or selected analogue sites;
- Adopt an initial target to revegetate 20% of mined land with native species to encourage the regeneration of characteristics from the surrounding area. Regeneration of the Box Gum Grassy Woodland; and
- Consultation with Landowner required.

6.2.3.3 Final Landform Construction: Reject Emplacement Areas and Tailings Dams

Escott does not have any reject emplacement areas or tailings dams. Subsequently, management of rejects within the final landform is not applicable.

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

Construction of the final void will include:

- The western batters of the mine void(s) are benched at 12m intervals with 8m wide berms remaining, forming an overall slope angle of approximately 45 degrees;
- The eastern batters cut in overburden will be mined/battered back to approximately 1:3 and grassed, forming safe slopes down to the water filled void to facilitate grazing; and
- The 1:10 access ramps will remain. Drainage will be re-directed back into the mined-out voids that will retain surface water run-off.

6.2.3.5 Final Landform Construction: Infrastructure Areas and / Overburden Emplacement Area

Construction of the overburden emplacement area will include:

- Backfilling of all small excavations with waste material, covering with available stockpiled topsoil, contour ripping prior to seeding;
- Battering/backfilling of larger northern and southern excavations (once remaining blasted zeolite mined) to form small depressions with 1 in 3 slopes;
- Clean up/batter all waste emplacement areas and spread with available topsoil; and
- Re-establish drainage in and around re-contoured, disturbed areas to drain into existing water filled mine voids and farm surface water management system.

6.2.3.6 Final Landform Construction: Creek / River Diversion Works

The Escott final landform does not include creek or diversion works. Subsequently, construction of creek/river diversion works is not applicable to Escott.

6.2.4 Growth Medium Development

In the context of this RMP, growth medium development encompasses activities to reinstate soils with the initial physical, chemical and biological characteristics required to establish the desired vegetation community.

Characterisation

Soil sampling has been conducted to establish the quality of topsoils and determine soil amelioration requirements. Soil amelioration will be undertaken according to **Table 16** or outcomes of subsequent characterisation analysis.

Table 16: Generic Soil Amelioration Rates

Soil Parameter	Value	Action	Rate
PH	Low PH < 5.0	Application of Gypsum	2.5t/ha initially 3-5t/ha
		Application of organic matter	3-5t/ha
	High PH > 8.0	Application of Lime	1t/ha initially
EC	>4 mS/cm	Application of Gypsum	Minimum 2.5 t/ha
CEC	Individual cation deficiencies	Application of lime	1t/ha initially

Soil Parameter	Value	Action	Rate
Emerson Aggregate Test	Dispersion classes 1, 2, 3 and 5	Application of Gypsum Addition of organic matter Bury dispersive soils beneath topsoil	2.5t/ha initially 3-5t/ha

Topsoil Respreading

Topsoil will be spread onto areas requiring rehabilitation to a nominal depth of 100-200mm for rehabilitation areas.

Soil testing results will be used to determine if physical and/or chemical amelioration is required, and the rates and method of application. The spreading of soil, addition of soil ameliorants, fertiliser, and application of seed will be carried out where possible in consecutive operations to reduce the potential for soil loss to wind and water erosion.

All soils will be ripped prior to seeding. This will be conducted on the contour where possible and will be managed to minimise the potential for unsuitable spoil material being ripped up to the surface.

Where possible, topsoil and subsoil layers are returned in sequential order.

Seed Bed Preparation

Seedbed preparation will be undertaken to ensure optimum establishment and growth of vegetation. All top-dressed areas will be contour ripped (after top-dressing) to create a “key” between the soil and the subsoil / capping prior to placement of materials.

Ripping will be undertaken along the contour, where possible and preferably when soil is moist and immediately prior to sowing. The spread top-dressed surface will be scarified with the contour immediately prior to seeding to reduce runoff and increase infiltration. Deep ripping lines every 20m with the contour will occur in areas of poor water infiltration.

6.2.5 Ecosystem and Land Use Establishment

In the context of this RMP, ecosystem establishment includes activities to establish the desired floristic composition (species diversity and density) and habitat features. The phase incorporates management actions such as weed and feral pest control to achieve species establishment and growth to juvenile communities, and habitat augmentation.

Revegetation activities will be planned to occur after the completion of reshaping, topdressing with growth media and construction of drainage structures.

The primary post mining land use for this mine site will be Box Gum Grassy Woodland to facilitate a range of final land uses.

6.2.5.1 Tube Stock Planting

There is no tube stock Planting currently undertaken at the Escott rehabilitation site. If required, tube stock planting will be undertaken in accordance with the Rehabilitation Plan.

6.2.5.2 Weed Control

Site Weed Infestations

To date, there are no major weed infestations recorded at Escott. Throughout the pasture there will be introduced species and potentially some noxious weeds. St Johns’ Wort (*Hypericum perforatum*), a declared noxious weed in the Liverpool Plains LGA, occurs within the Site and will require control. ZAPL Mine staff will monitor Escott to determine the need

for weed control measures. Any weeds of national significance, noxious weeds or environmental weeds will be controlled.

Weed Management

Weed removal shall include any species likely to significantly invade bushland, prevent natural regeneration, or impede native seedling growth. Priority shall be given to species listed as Weeds of National Significance and Noxious Weeds.

Weed management measures will include be appropriate to the weed type, growth form, ecology, and to the existing site condition and include reactive and preventative measures. Detailed measures to management weeds are detailed in the Rehabilitation Plan.

6.2.6 Ecosystem and Land Use Development

For the purposes of this RMP and all domains, the ecosystem and land use development phase represent those activities required to develop sustainable ecosystems that have characteristics comparable to similar undisturbed vegetation associations in the area.

Activities are generally ongoing maintenance and land management activities and rehabilitation monitoring. Ongoing environmental management to minimise rehabilitation risks include:

- Comparing specific ecosystem characteristics such as soil profile development, floristic composition and structure and faunal diversity and abundance with the characteristics of appropriate analogue sites; and
- Undertaking adaptive management and remedial works where characteristics of the rehabilitation are not trending toward desired outcomes.

Rehabilitation monitoring will be undertaken throughout the ecosystem and land use development phase until it can be demonstrated that rehabilitation areas have met all conditions for relinquishment. Rehabilitation maintenance activities will be identified by rehabilitation monitoring and ongoing requirements will be reported annually in the Forward Program.

6.2.7 Rehabilitation Completion (Sign-Off)

Rehabilitated areas will be progressively signed-off by the RR as they meet the rehabilitation criteria outlined in **Section 4**, in accordance with the *Guideline: Achieving Rehabilitation Completion (Sign-off).*

6.3 Rehabilitation of Areas Affected by Subsidence

Escott is in an area where no historic underground mining has been undertaken. Subsequently, mine subsidence is not applicable to Escott.

7.0 Rehabilitation Quality Assurance Process

A Rehabilitation Plan has been developed by ZAPL to provide a practical framework for implementing the RMP, practical rehabilitation and to fulfill the regulatory requirements of the relevant approvals, licences, and authorisations.

It is noted that whilst the Rehabilitation Plan has been prepared, no rehabilitation has been featured within the Forward Program.

Review, revision and implementation of the Rehabilitation Plan will be triggered when landform establishment is featured in Forward Program Year 2. Until such time, rehabilitation monitoring and reporting is managed outside of the Rehabilitation Plan.

Review and revision of the Rehabilitation Plan will carefully consider the ZAPL Rehabilitation Risk Assessment, Rehabilitation Management Plan, the RR bowtie risk assessment and associated Targeted Assessment Programs and the unique operational context of ZAPL.

The Rehabilitation Plan provides the frameworks for ZAPLs Rehabilitation Quality Assurance Process (RQAP) that will be implemented when undertaking rehabilitation. This will include details of inspections, monitoring and record keeping which will be required to ensure that:

- Rehabilitation is being implemented in accordance with the nominated methodologies; and
- Identified risks to rehabilitation are being adequately addressed at each phase of rehabilitation.

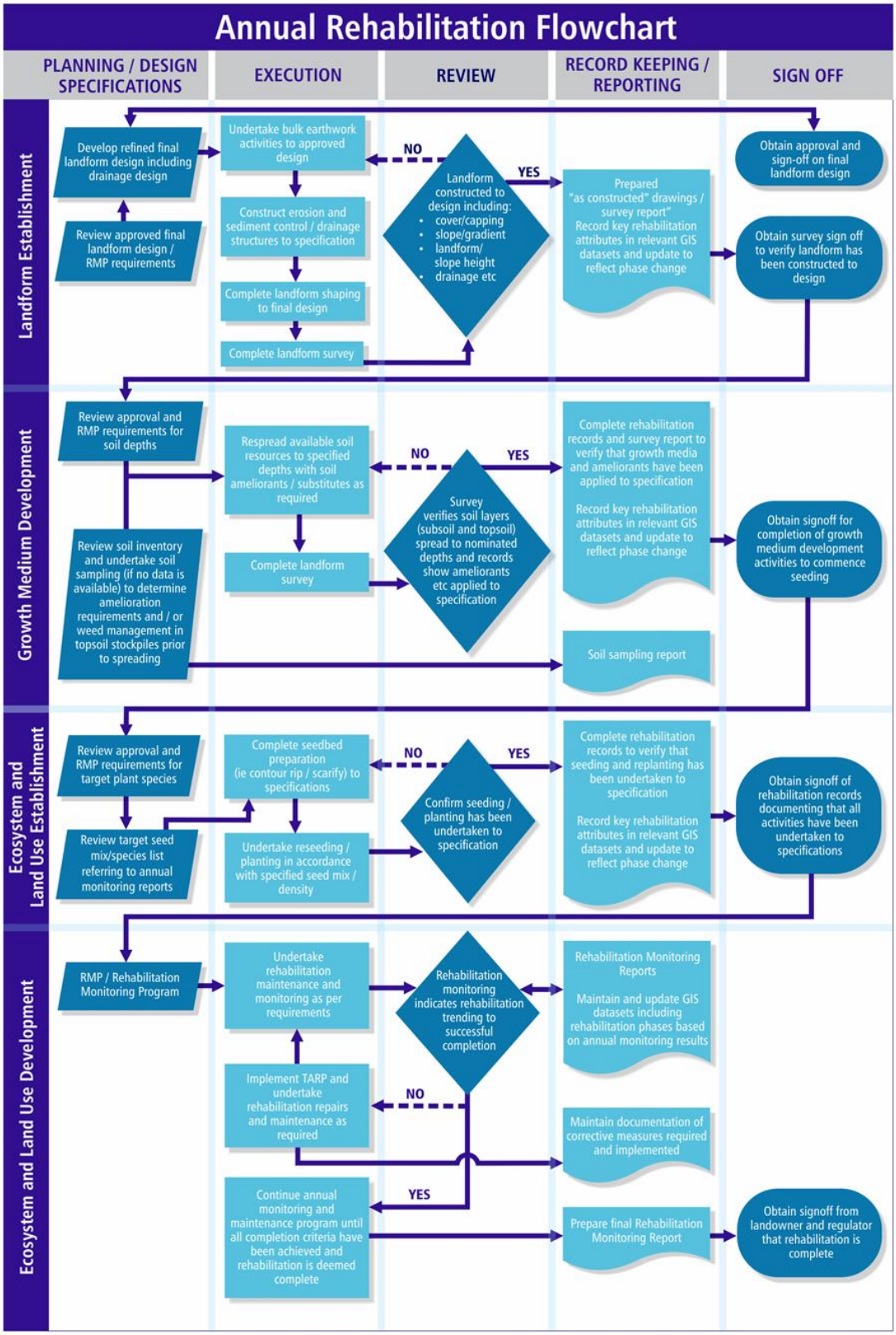
ZAPL will implement the RQAP through every phase of rehabilitation to confirm that the rehabilitation strategies outlined in this RMP have been completed in accordance with the nominated methodologies. The RQAP will also include inspections and documentation to verify that each phase of demolition and rehabilitation has been completed and has met the completion criteria detailed in **Section 6**. Documentation to be maintained would include (but not limited to):

- **Phase 1 – Active Mining:**
  - Documentation of pre-clearance surveys and GDPs;
  - Resource salvage records (soil, rocks, habitat trees);
  - Dumping plans and surveys; and
  - Detailed Landform designs.
- **Phase 2 – Decommissioning:**
  - Documentation of boreholes sealing and sign off by the RR;
  - Inspection and demolition reports to confirm all infrastructure to be demolished has been removed;
  - Documentation to identify the future landowner responsible for the ongoing upkeep and management of retained infrastructure; and
  - Validation testing to ensure any contamination has been appropriately remediated and/or removed.
- **Phase 3 – Landform Establishment:**
  - Survey and preparation of as constructed drawings of final constructed slopes, landforms and water drainage structures; and
  - Verification reporting to confirm the specified depth of capping has been implemented (i.e., aerial surveys).

- **Phase 4 – Growth Medium Development:**
  - Maintenance of a topsoil inventory to document stripped, stockpiled and re-spread resources;
  - Site records of re-spread topsoil, ameliorants, fertiliser etc.; and
  - Soil testing results to confirm appropriate soil geochemical parameters for plant establishment.
- **Phase 5 – Ecosystem and Land Use Establishment:**
  - Documentation of reseeding or planting activities undertaken, such as date of planting, weather conditions, seeding rates and/or planting rates; and
  - Site inspections and monitoring of rehabilitated areas to allow early identification of any emerging threats to rehabilitation.
- **Phase 6 – Ecosystem and Land Use Development:**
  - Inspections of temporary and permanent erosion and sediment controls;
  - Inspections to identify potential weed infestations;
  - Documentation of Rehabilitation Monitoring; and
  - Documentation of weed and feral animal management and eradication programs and follow-up inspections.

Review, revision and implementation of the Rehabilitation Plan will include development of quality control tools signed off after each phase of rehabilitation prior to proceeding to the next phase (**Figure 13**).

Figure 13: Rehabilitation Quality Assurance Process



8.0 Rehabilitation Monitoring Program

Escott has no rehabilitation currently planned across the Forward Program. The small active mining area and LOM infrastructure results in limited opportunity for progressive rehabilitation.

There is currently no rehabilitation being undertaken and therefore no monitoring program for rehabilitation areas.

ZAPL has established a monitoring program that will focus on reference sites for assessing achievement of rehabilitation objectives and completion.

8.1 Analogue Site Baseline Monitoring

Analogue sites will be used as a baseline to compare and monitor performance in meeting various rehabilitation criteria, in particular revegetation. Studies previously conducted have used analogue sites in determining baseline values for the existing ecological community. These studies, and sites (where possible) will be used for future comparisons to determine the progress of rehabilitation efforts.

Inaugural base line monitoring was undertaken in 2023. Ongoing monitoring data will be collected in accordance with Annual Rehabilitation Reporting and the Forward Program.

8.2 Rehabilitation Establishment Monitoring

ZAPL currently do not have any established rehabilitation monitoring.

8.3 Measuring Performance against Rehabilitation Objectives and Rehabilitation Completion Criteria

Following establishment of rehabilitation within ML1356, the monitoring program developed by ZAPL will include ongoing monitoring of erosion and revegetation works, photo monitoring of rehabilitation, annual walk over inspections/monitoring and a final assessment of the rehabilitation areas to establish that they have satisfied the rehabilitation objectives and completion criteria.

8.3.1 Rehabilitation Performance

Following establishment of rehabilitation within ML1356, regular inspections (event based ((significant storms)) and annual) will be conducted to review establishment, erosion, weeds, pests and other qualitative aspects.

A final assessment of the rehabilitation will be conducted to establish that the rehabilitation has met the completion criteria. This will be conducted by an experienced ecologist and will involve the assessment of a reference site in an undisturbed area and the assessment of a site within the rehabilitation areas to determine if the rehabilitation is trending towards the conditions that occur within the undisturbed areas.

9.0 Rehabilitation Research, Modelling and Trials

9.1 Current Rehabilitation Research, Modelling and Trials

Two analogue sites have been established. These sites will be used to compare and monitor performance in meeting various rehabilitation criteria, in particular revegetation criteria as outlined in **Appendix A**. Studies previously conducted have used analogue sites in determining baseline values for the existing ecological community. These studies, and sites (where possible) will be used for future comparisons to determine the progress of rehabilitation efforts.

9.2 Future Rehabilitation Research, Modelling and Trials

There are no planned future rehabilitation research, modelling or trials.

10.0 Intervention and Adaptive Management

Where rehabilitation performance is not trending toward the nominated completion criteria this may indicate that there is a potential threat to long term rehabilitation success. Threats to rehabilitation may include events such as extended periods of drought, bushfire events, or pressures from weeds and feral/pest animals.

A Rehabilitation and Closure Trigger Action Response Plan (TARP) has been developed to provide a framework to manage potential key risks to rehabilitation. The Rehabilitation and Closure TARP includes:

- Identification of the principal contributing factors and impacts for each major risk to rehabilitation;
- Identification of upper limits (trigger values) for causes and impacts that are considered to represent an unacceptable level of risk; and
- Identification of appropriate responses to mitigate or remediate the causes and impacts, including a notification protocol.

The Rehabilitation and Closure TARP provides management responses for lower (first tier) and upper (second tier) trigger values. First tier trigger values identify opportunities for closer monitoring or early intervention that may mitigate potential impacts before notable impact to rehabilitation occurs. Second tier trigger values identify when indicators have reached a threshold that requires more substantive or widespread remedial actions to remediate or mitigate rehabilitation failure.

Should any trigger conditions be met resulting in the requirement for intervention or adaptive management, actions will be reported in the Annual Rehabilitation Report. ZAPL will notify the RR and other relevant stakeholders of any incident (such as bushfire or disease) that results in major impacts to rehabilitation that are likely to significantly impact the potential to achieve rehabilitation success.

The Rehabilitation and Closure TARP is provided in **Table 17**, and will be revised as conditions at Escott change or new risks to rehabilitation are identified.

Reporting of non-compliances identified as part of intervention and adaptive management will be undertaken in accordance with the mining lease conditions, refer to **Appendix C**.

Table 17: Trigger Action Response Plan

Aspect/Category	Key Element	Element Number	Tripper/Response	Condition Green	Condition Red
Final Landform	Stability of final landform	**1**	Trigger	The final landform maintains a safe level of stability	Inspection of final landform reveals that the final landform does not maintain an acceptable level of stability.
			Response	No Response needed	• Arrange for further inspection. • Arrange consultation with suitably qualified professional and provision of possible solutions. • Carry out suitable solution following consultation with department.
	Shape of final landform	**2**	Trigger	Final landform has conformed to the approved and agreed upon shape	Final Landform does not conform to the approved shape.
			Response	No response needed	Reshape the final landform until shape complies with the previously approved landform shape.
Surface Water, Sediment and Erosion Controls	Failure of erosion controls	**3**	Trigger	There is no evidence of erosion or sedimentation pollution in rehabilitated areas	Inspections of rehabilitated areas show that the final landform is polluting the surrounding areas through erosion and sedimentation
			Response	No response needed	• Provide reinforcement to erosion control systems, targeting areas of weakness identified by trigger. • Arrange consultation with suitable qualified professional and provision of possible solutions. • Carry out solutions proposed because of consultation activities.
Surface Water Management	Failure of surface water management	**4**	Trigger	There is no evidence of uncontrolled surface water	There is evidence of uncontrolled surface water
			Response	No response needed	• Review surface water management protocols and structures. • Repair or improve surface water management protocols and structures where required.

Aspect/Category	Key Element	Element Number	Tripper/Response	Condition Green	Condition Red
					• Arrange consultation with suitably qualified professional and provision of possible solutions.
Sustainability	Sustainability of rehabilitated ecosystem Impacts of weeds	**5**	Trigger	Biodiversity monitoring shows that species targets are being met through rehabilitation procedures	Biodiversity species numbers are significantly lower than the predetermined species target. The targets will not be met
			Response	No response needed	• Arrange consultation with suitable qualified professional and provision of possible solutions. • Plant additional vegetation as required. • Improve substrate quality. • Introduce further weed control measures.
Hazards	Impacts of Weeds	**6**	Trigger	There is no evidence suggesting an increase in the number of weeds at the rehabilitated site	Assessment of rehabilitated areas reveals a significant increased number of weeds
			Response	No response needed	• Introduce further weed control measures. • Consult a qualified professional for their possible solutions
	Bushfire	**7**	Trigger	There is no evidence suggesting the site is at an increased danger of a bushfire	An assessment of circumstances suggests the site danger of a bushfire has increased significantly
			Response	No response needed	• Prevent or minimise use of flammable substances. • Compliance with bush fire management provisions of the Liverpool Plain Shire Council

11.0 Review, Revision and Implementation

11.1 Review and Revision of the Plan

The Plan will be reviewed and if required revised in the event of the following:

- An amendment to the rehabilitation objectives, completion criteria or proposed final land use;
- Changes to risks, risk control measures or rehabilitation strategies being identified during the completion of rehabilitation risk assessment or additional investigations;
- When directed to by the RR Secretary; and
- When triggered by consent conditions (Annual Reviews, Independent Environmental Audits, Incident Reports, Modifications). It is noted that there are no consent conditions in approvals currently held by ZAPL that would trigger a review to the RMP.

11.2 Implementation

The process for ensuring that mining and rehabilitation are conducted in accordance with the RMP is the preparation and implementation of an Annual Rehabilitation Plan.

The Annual Rehabilitation Plan is prepared and managed by the Mine Manager.

Note: The trigger for preparing Annual Rehabilitation Plans is when rehabilitation activities are included in the Forward Program.

Appendix A Land Ownership

Escott Zeolite Mine

Rehabilitation Management Plan

Zeolite Australia Pty Ltd

SLR Project No.: 630.30206.00200

7 November 2025

Appendix A

Land Ownership

Escott Zeolite Mine

Rehabilitation Management Plan

Zeolite Australia Pty Ltd

Land Ownership	Land Description
Freehold	Lot 341 in DP1262866
Werris Creek Coal Pty Limited	Lots 215, 235, 170, 156, 65, 62, and 163 in DP751017, Lot 5 in DP1184235 and Lot 1 in DP1204207

Appendix B ROBJ0001323 and ROBJ0001556 Approval Documents

Escott Zeolite Mine

Rehabilitation Management Plan

Zeolite Australia Pty Ltd

SLR Project No.: 630.30206.00200

7 November 2025

NSW GOVERNMENT

NSW Resources Regulator

ROBJ0001323

APPROVED REHABILITATION OBJECTIVES STATEMENT

Escott Zeolite Mine

TUESDAY 7 NOVEMBER 2023

NSW Resources Regulator

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Summary.....3
Important note.....-1
Rehabilitation Objectives.....4

Summary

DETAIL	APPROVAL
Reference	ROBJ0001323
Date of approval	Tuesday 7 November 2023
Mine	Escott Zeolite Mine
Contact	Joel Cook

Important note

The Regulator may make the information in your application and any supporting information (including this approval) available for inspection by members of the public, including by publication on its website or by displaying the information at any of its offices. If you consider any part of your application to be confidential, please communicate this to the Regulator via the message function on this application within the Portal.

Rehabilitation Objectives

The following rehabilitation objectives have been approved.

FINAL LAND USE DOMAIN	MINING DOMAIN	SPECIFY OTHER DOMAIN	SPATIAL REF	REHABILITATION OBJECTIVE CATEGORY	REHABILITATION OBJECTIVES
Native Ecosystem	Infrastructure Area		A1	Bushfire	The risk of bushfire and impacts to the community, environment and infrastructure is managed in accordance with regulatory requirements
Native Ecosystem	Infrastructure Area		A1	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land (original rough grazing land capability)
Native Ecosystem	Infrastructure Area		A1	Ecological rehabilitation	Ecological rehabilitation objective 2: The vegetation structure of the rehabilitation is similar to that of native vegetation communities of Box Gum Woodland found in the local area.
Native Ecosystem	Infrastructure Area		A1	Ecological rehabilitation	Ecological rehabilitation objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native vegetation community of Box-Gum Woodland found in the local area.
Native Ecosystem	Infrastructure Area		A1	Ecological rehabilitation	Ecological rehabilitation objective 3: Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.
Native Ecosystem	Infrastructure Area		A1	Groundwater	Impacts to groundwater are similar to the background environment.
Native Ecosystem	Infrastructure Area		A1	Groundwater	Groundwater quality is similar to background water quality.
Native Ecosystem	Infrastructure Area		A1	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
Native Ecosystem	Infrastructure Area		A1	Landform stability	Landform that is commensurate with surrounding natural landform

APPROVED REHABILITATION OBJECTIVES STATEMENT

ROBJ0001323 | Escott Zeolite Mine

NSW Resources Regulator

FINAL LAND USE DOMAIN	MINING DOMAIN	SPECIFY OTHER DOMAIN	SPATIAL REF	REHABILITATION OBJECTIVE CATEGORY	REHABILITATION OBJECTIVES
Native Ecosystem	Infrastructure Area		A1	Landform stability	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 or negatively impact the community socially or economically.
Native Ecosystem	Infrastructure Area		A1	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
Native Ecosystem	Infrastructure Area		A1	Removal of infrastructure	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.
Native Ecosystem	Infrastructure Area		A1	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community and supports a native ecosystem final land use (access tracks for example)
Native Ecosystem	Infrastructure Area		A1	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality
Native Ecosystem	Overburden Emplacement Area		A4	Bushfire	The risk of bushfire and impacts to the community, environment and infrastructure is managed in accordance with regulatory requirements
Native Ecosystem	Overburden Emplacement Area		A4	Ecological rehabilitation	Ecological rehabilitation objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native vegetation community of Box-Gum Woodland found in the local area.
Native Ecosystem	Overburden Emplacement Area		A4	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native vegetation communities of Box Gum Woodland found in the local area.
Native Ecosystem	Overburden Emplacement Area		A4	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land (original rough grazing land capability)

APPROVED REHABILITATION OBJECTIVES STATEMENT

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FINAL LAND USE DOMAIN	MINING DOMAIN	SPECIFY OTHER DOMAIN	SPATIAL REF	REHABILITATION OBJECTIVE CATEGORY	REHABILITATION OBJECTIVES
Native Ecosystem	Overburden Emplacement Area		A4	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.
Native Ecosystem	Overburden Emplacement Area		A4	Groundwater	Groundwater quality is similar to background water quality.
Native Ecosystem	Overburden Emplacement Area		A4	Groundwater	Impacts to groundwater are similar to the background environment.
Native Ecosystem	Overburden Emplacement Area		A4	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
Native Ecosystem	Overburden Emplacement Area		A4	Landform stability	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 or negatively impact the community socially or economically.
Native Ecosystem	Overburden Emplacement Area		A4	Landform stability	Landform that is commensurate with surrounding natural landform
Native Ecosystem	Overburden Emplacement Area		A4	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
Native Ecosystem	Overburden Emplacement Area		A4	Removal of infrastructure	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.
Native Ecosystem	Overburden Emplacement Area		A4	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community and supports a native ecosystem final land use (access tracks for example)
Native Ecosystem	Overburden Emplacement Area		A4	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality

APPROVED REHABILITATION OBJECTIVES STATEMENT

ROBJ0001323 | Escott Zeolite Mine

NSW Resources Regulator

FINAL LAND USE DOMAIN	MINING DOMAIN	SPECIFY OTHER DOMAIN	SPATIAL REF	REHABILITATION OBJECTIVE CATEGORY	REHABILITATION OBJECTIVES
Native Ecosystem	Active Mining Area (Open cut void)		A5	Bushfire	The risk of bushfire and impacts to the community, environment and infrastructure is managed in accordance with regulatory requirements
Native Ecosystem	Active Mining Area (Open cut void)		A5	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.
Native Ecosystem	Active Mining Area (Open cut void)		A5	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native vegetation communities of Box Gum Woodland found in the local area.
Native Ecosystem	Active Mining Area (Open cut void)		A5	Ecological rehabilitation	Ecological rehabilitation objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native vegetation community of Box-Gum Woodland found in the local area.
Native Ecosystem	Active Mining Area (Open cut void)		A5	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land (original rough grazing land capability)
Native Ecosystem	Active Mining Area (Open cut void)		A5	Groundwater	Impacts to groundwater are similar to the background environment.
Native Ecosystem	Active Mining Area (Open cut void)		A5	Groundwater	Groundwater quality is similar to background water quality.
Native Ecosystem	Active Mining Area (Open cut void)		A5	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
Native Ecosystem	Active Mining Area (Open cut void)		A5	Landform stability	Landform that is commensurate with surrounding natural landform

APPROVED REHABILITATION OBJECTIVES STATEMENT

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FINAL LAND USE DOMAIN	MINING DOMAIN	SPECIFY OTHER DOMAIN	SPATIAL REF	REHABILITATION OBJECTIVE CATEGORY	REHABILITATION OBJECTIVES
Native Ecosystem	Active Mining Area (Open cut void)		A5	Landform stability	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 or negatively impact the community socially or economically.
Native Ecosystem	Active Mining Area (Open cut void)		A5	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
Native Ecosystem	Active Mining Area (Open cut void)		A5	Removal of infrastructure	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.
Native Ecosystem	Active Mining Area (Open cut void)		A5	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community and supports a native ecosystem final land use (access tracks for example)
Native Ecosystem	Active Mining Area (Open cut void)		A5	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality
Water Management Areas	Water Management Area		F3	Ecological rehabilitation	Ecological Rehabilitation Objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native riparian vegetation found in the local area.
Water Management Areas	Water Management Area		F3	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function within native riparian vegetation have been established that demonstrate the rehabilitation is self-sustainable.
Water Management Areas	Water Management Area		F3	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native riparian vegetation found in the local area.
Water Management Areas	Water Management Area		F3	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
Water Management Areas	Water Management Area		F3	Landform stability	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 or

FINAL LAND USE DOMAIN	MINING DOMAIN	SPECIFY OTHER DOMAIN	SPATIAL REF	REHABILITATION OBJECTIVE CATEGORY	REHABILITATION OBJECTIVES
					negatively impact the community socially or economically. Landform that is commensurate with surrounding natural landform
Water Management Areas	Water Management Area		F3	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
Water Management Areas	Water Management Area		F3	Removal of infrastructure	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.
Water Management Areas	Water Management Area		F3	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community
Water Management Areas	Water Management Area		F3	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality
Water Management Areas	Water Management Area		F3	Water approvals	Structures that take or divert water such as final voids, dams, levees etc. are appropriately licensed (e.g. under the Water Management Act 2000) and where required ensure sufficient licence shares are held in the water source(s) to account for water take.
Water Storage (Excluding Final Void)	Water Management Area		G3	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land (original rough grazing land capability)
Water Storage (Excluding Final Void)	Water Management Area		G3	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native riparian vegetation found in the local area.
Water Storage (Excluding Final Void)	Water Management Area		G3	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function within native riparian vegetation have been established that demonstrate the rehabilitation is self-sustainable.

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FINAL LAND USE DOMAIN	MINING DOMAIN	SPECIFY OTHER DOMAIN	SPATIAL REF	REHABILITATION OBJECTIVE CATEGORY	REHABILITATION OBJECTIVES
Water Storage (Excluding Final Void)	Water Management Area		G3	Ecological rehabilitation	Ecological Rehabilitation Objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native riparian vegetation found in the local area.
Water Storage (Excluding Final Void)	Water Management Area		G3	Landform stability	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 or negatively impact the community socially or economically. Landform that is commensurate with surrounding natural landform
Water Storage (Excluding Final Void)	Water Management Area		G3	Surface water	Runoff water quality from mine site is similar to, or better than the background runoff water quality
Water Storage (Excluding Final Void)	Water Management Area		G3	Water approvals	Structures that take or divert water such as final voids, dams, levees etc. are appropriately licensed (e.g. under the Water Management Act 2000) and where required ensure sufficient licence shares are held in the water source(s) to account for water take.
Final Void	Active Mining Area (Open cut void)		J5	Ecological rehabilitation	Ecological Rehabilitation Objective 4: Ecosystem is established and needs no greater maintenance than those of surrounding, undisturbed land (original rough grazing land capability)
Final Void	Active Mining Area (Open cut void)		J5	Ecological rehabilitation	Ecological Rehabilitation Objective 2: The vegetation structure of the rehabilitation is similar to that of native vegetation communities of Box Gum Woodland native riparian vegetation found in the local area.
Final Void	Active Mining Area (Open cut void)		J5	Ecological rehabilitation	Ecological rehabilitation objective 1: The vegetation composition of the rehabilitation contains species that are commensurate with native vegetation community of Box-Gum Woodland and native riparian vegetation found in the local area.

APPROVED REHABILITATION OBJECTIVES STATEMENT

ROBJ0001323 | Escott Zeolite Mine

NSW Resources Regulator

FINAL LAND USE DOMAIN	MINING DOMAIN	SPECIFY OTHER DOMAIN	SPATIAL REF	REHABILITATION OBJECTIVE CATEGORY	REHABILITATION OBJECTIVES
Final Void	Active Mining Area (Open cut void)		J5	Ecological rehabilitation	Ecological Rehabilitation Objective 3: Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.
Final Void	Active Mining Area (Open cut void)		J5	Groundwater	Impacts to groundwater are similar to the background environment.
Final Void	Active Mining Area (Open cut void)		J5	Groundwater	Groundwater quality is similar to background water quality.
Final Void	Active Mining Area (Open cut void)		J5	Land contamination	There is no residual contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.
Final Void	Active Mining Area (Open cut void)		J5	Landform stability	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 or negatively impact the community socially or economically. Landform that is commensurate with surrounding natural landform
Final Void	Active Mining Area (Open cut void)		J5	Management of waste and process materials	Residual waste materials stored on site will be appropriately contained / encapsulated so it does not pose any hazards or constraints for intended final land use.
Final Void	Active Mining Area (Open cut void)		J5	Removal of infrastructure	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.
Final Void	Active Mining Area (Open cut void)		J5	Retention of infrastructure	All infrastructure that is to remain as part of the final land use is safe, does not pose any hazard to the community
Final Void	Active Mining Area (Open cut void)		J5	Surface water	Runoff water quality from mine site is similar to, or better than the pre-disturbance runoff water quality

FINAL LAND USE DOMAIN	MINING DOMAIN	SPECIFY OTHER DOMAIN	SPATIAL REF	REHABILITATION OBJECTIVE CATEGORY	REHABILITATION OBJECTIVES
Final Void	Active Mining Area (Open cut void)		J5	Water approvals	Structures that take or divert water such as final voids, dams, levees etc. are appropriately licensed (e.g. under the Water Management Act 2000) and where required ensure sufficient licence shares are held in the water source(s) to account for water take.

Appendix C Standard Conditions of Mining Leases

Escott Zeolite Mine

Rehabilitation Management Plan

Zeolite Australia Pty Ltd

SLR Project No.: 630.30206.00200

7 November 2025

Appendix C

Standard Mining Lease Conditions

Escott Zeolite Mine

Rehabilitation Management Plan

Zeolite Australia Pty Ltd

Condition	Requirement	Domain	Timing	Section Addressed
ML1356				
4	**Must prevent or minimise harm to the environment** (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. (2) In this clause – ***harm*** to the environment has the same meaning as in the Protection of the Environment Operations Act 1997.	All domains	During operation and rehabilitation	6.2
5	**Rehabilitation to occur as soon as reasonably practicable after disturbance** 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.			6.2
6	**Rehabilitation must achieve final land use.** (1) The holder of a mining lease must ensure that rehabilitation of the mining area achieves the final land use for the mining area. (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). (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) **Note** – clause 7 requires a rehabilitation risk assessment to be conducted whenever a hazard is identified under this subclause. (4) In this clause – **final land use** for the mining area means the final landform and final land uses to be achieved for the mining area – (a) as set out in the rehabilitation objectives statement and rehabilitation completion criteria statement, and (b) for a large mine – as spatially depicted in the final landform and rehabilitation plan, and		During rehabilitation	2.3, 4, 5

Condition	Requirement	Domain	Timing	Section Addressed
	(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. **planning approval** means – (a) a development consent within the meaning of the Environmental Planning and Assessment Act 1979, or (b) an approval under that Act, Division 5.1.			
7	**Rehabilitation risk assessment** (1) The holder of a mining lease must conduct a risk assessment (a **rehabilitation risk assessment**) that – (a) identifies, assesses and evaluates the risks that need to be addressed to achieve the following in relation to the mining lease– i. the rehabilitation objectives, ii. the rehabilitation completion criteria, iii. for large mines – the final land use as spatially depicted in the final landform and rehabilitation plan, (b) and identifies the measures that need to be implemented to eliminate, minimise or mitigate the risks. (2) The holder of the mining lease must implement the measures identified. (3) The holder of a mining lease must conduct a rehabilitation risk assessment – (a) for a large mine – before preparing a rehabilitation management plan, and (b) for a small mine – before preparing the rehabilitation outcome documents for the mine, and (c) whenever a hazard is identified under clause 6(3) – as soon as reasonably practicable after it is identified, and (d) whenever given a written direction to do so by the Secretary		During construction, operation and rehabilitation	3
8	**Application of Division** This Division does not apply to a mining lease unless— (a) the security deposit required under the mining lease is greater than the minimum deposit prescribed under the Act, section 261BF in relation to that type of mining lease, or (b) the Secretary gives a written direction to the holder of the mining lease that this Division, or a provision of this Division, applies to the mining lease.			Not Triggered
9	**General requirements for documents**			All sections

Condition	Requirement	Domain	Timing	Section Addressed
	A document required to be prepared under this Division must— (a) be in a form approved by the Secretary and **Note**—The approved forms are available on the Department's website. (b) include any matter required to be included by the form, and (c) if required to be given to the Secretary—be given in a way approved by the Secretary.			
10	**Rehabilitation management plans for large mines** (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— (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. (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. (3) A rehabilitation management plan is not required to be given to the Secretary for approval. (4) The holder of the mining lease— (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 Plan
11	**Amendment of rehabilitation management plans** The holder of a mining lease must amend the rehabilitation management plan for the mining lease as follows— (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,			This Plan

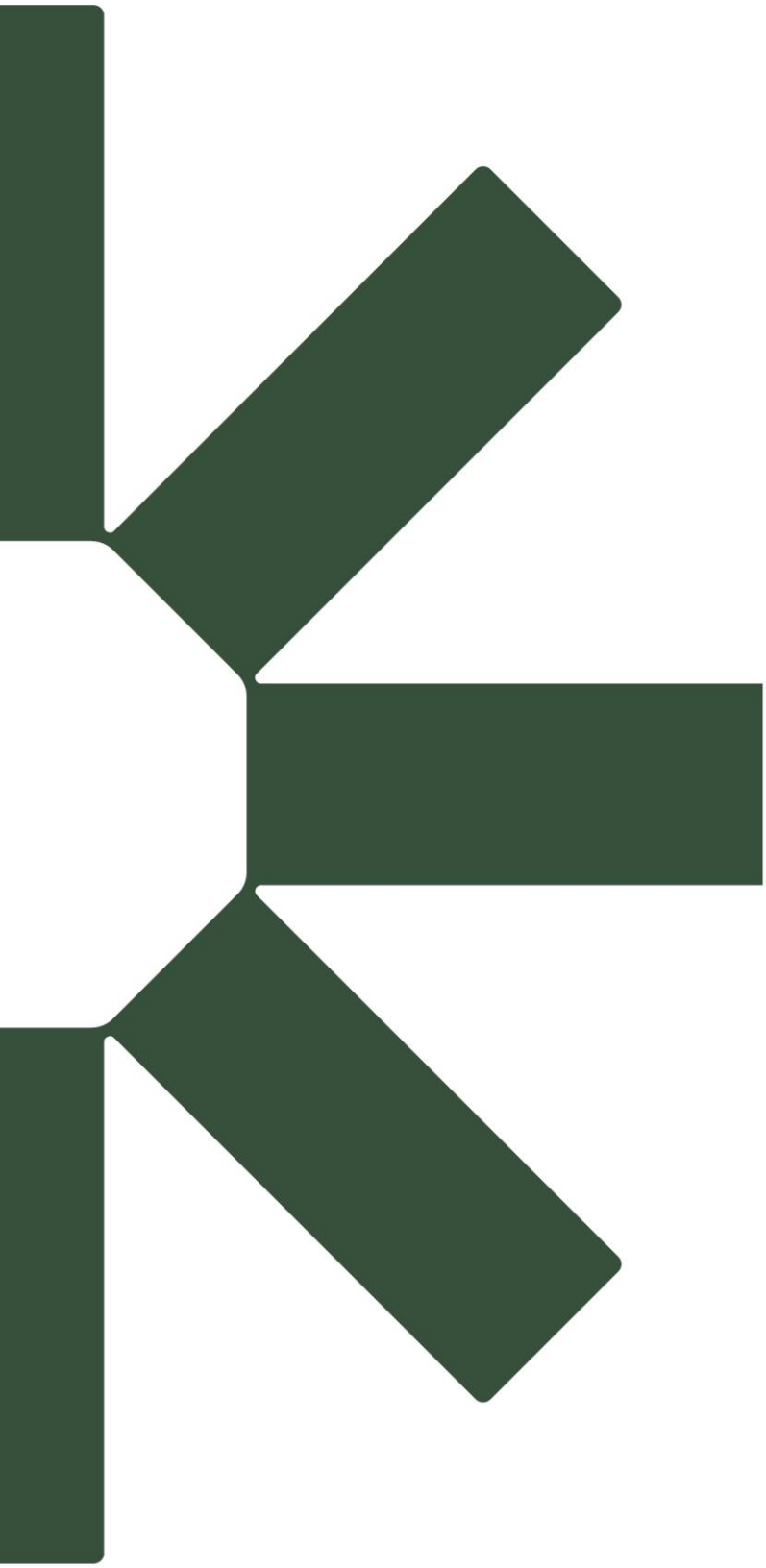
Condition	Requirement	Domain	Timing	Section Addressed
	(b) as a consequence of an amendment made under clause 14 to a rehabilitation outcome document—within 30 days after the amendment is made, (c) to reflect any changes to the risk control measures in the prepared plan that are identified in a rehabilitation 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.			
12	**Rehabilitation outcome documents** (1) The holder of a mining lease must prepare the following documents (***the rehabilitation outcome documents***) for the mining lease and give them to the Secretary for approval— (a) the ***rehabilitation objectives statement***, which sets out the rehabilitation objectives required to achieve the final land use for the mining area, (b) the ***rehabilitation completion criteria statement***, which sets out criteria, the completion of which will demonstrate the achievement of the rehabilitation objectives, (c) for a large mine, ***the final landform and rehabilitation plan***, showing a spatial depiction of the final land use. (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.			4,5
13	**Forward program and annual rehabilitation report** (1) The holder of a mining lease must prepare a program (a ***forward program***) for the mining lease that includes the following— (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. (2) The holder of a mining lease must prepare a report (an annual rehabilitation report) for the mining lease that includes—			10,11

Condition	Requirement	Domain	Timing	Section Addressed
	(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— 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. (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. (4) The holder of the mining lease must give the forward program and annual rehabilitation report to the Secretary. (5) In this clause— ***annual reporting period*** means each period of 12 months commencing on— (a) the date on which the mining lease is granted, or (b) if the Secretary approves another date in relation to the mining lease— the other date			
14	**Amendment of rehabilitation outcome documents and forward program** (1) This clause applies to— (a) a rehabilitation outcome document if it has been approved by the Secretary, and (b) a forward program if it has been given to the Secretary. (2) The holder of a mining lease must not amend a document to which this clause applies that relates to the mining lease unless— (c) the Secretary gives the holder a written direction to do so, or (d) the Secretary, on written application by the holder, gives a written approval of the amendment. (3) The holder of the mining lease must amend the document in accordance with the Secretary's direction or approval.			10,11

Condition	Requirement	Domain	Timing	Section Addressed
	(4) Nothing in this clause prevents the holder of a mining lease preparing a draft amendment for submission to the Secretary for approval.			
15	**Times at which documents must be prepared and given** (1) The holder of a mining lease must do the following before the end of the initial period— (a) prepare a rehabilitation management plan, and (b) prepare rehabilitation outcome documents and give them, other than the rehabilitation completion criteria statement, to the Secretary for approval, and (c) prepare a forward program and give it to the Secretary. (2) The holder of the mining lease must prepare a forward program and annual rehabilitation report and give them to the Secretary before— (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), (b) or a later date approved by the Secretary. (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. (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— (a) 60 days after a development consent is modified following an application referred to in clause 20(1)(b), or (b) a later date approved by the Secretary. (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). (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. (7) The holder of the mining lease must comply with the direction. (8) In this clause— initial period means the period commencing when the mining lease is granted and ending—			This Plan

Condition	Requirement	Domain	Timing	Section Addressed
	(a) 30 days, or other period approved by the Secretary, after this Division first applies to the mining lease, or (b) if this Division applies to the mining lease because of an increase in the required security deposit— i. when the surface of the mining area is disturbed by activities under the mining lease, or ii. at a later date approved by the Secretary.			
16	**Certain documents to be publicly available** (1) This clause applies to the following documents — (a) a rehabilitation management plan, (b) a forward program, (c) an annual rehabilitation report. (2) The holder of a mining lease must make a document to which this clause applies publicly available by— (d) publishing it on its website in a prominent position, or (e) if the holder does not have a website—providing a copy of it to a person— i. on the written request of a person, and ii. without charge, and iii. within 14 days after the request is received. (3) If a document is published on the website of the holder of the mining lease, the holder must ensure that it is published— (f) for a rehabilitation management plan—within 14 days after it is prepared or amended, or (g) for a forward program or an annual rehabilitation report—within 14 days after it is given to the Secretary or amended, (4) Personal information within the meaning of the Privacy and Personal Information Protection Act 1998 is not required to be included in a document made available to a person under this clause.			Noted
17	**Records demonstrating compliance** 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. **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.			7
18	**Report on non-compliance**			10

Condition	Requirement	Domain	Timing	Section Addressed
	(1) The holder of a mining lease must provide the Minister with a written report detailing any non-compliance with— (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. (b) a requirement of the Act or this Regulation relating to activities under the mining lease. (2) The holder of the mining lease must provide the report within 7 days after becoming aware of the noncompliance. (3) The holder of the mining lease must ensure the report— (a) identifies the condition of the mining lease, or the requirement of the Act or this Regulation, to which the non-compliance relates, and (b) describes the non-compliance and (c) specifies the date or dates on which, or the period during which, the noncompliance occurred, and (d) describes the causes or likely causes of the non-compliance, and (e) describes the action that has been taken, or will be taken, to mitigate the effects, and (f) to prevent any recurrence, of the non-compliance.			



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