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2.

# Final Land Use

### **Regulatory Requirements for Rehabilitation**

Table 3 lists the regulatory requirements relating to the rehabilitation of the Mine Site and post-mining land uses. It is noted that the conditional requirements for MLs within the Mine Site have been adopted from Schedule 8A of the Mining Amendment (Standard Conditions of Mining *Leases – Rehabilitation) Regulation 2021*, gazetted by the NSW Government on 2 July 2021. It has been assumed that site specific conditions within Mining Authorities relating to rehabilitation have been retained, and the standard conditions have been replaced by those identified in Schedule 8A of the Mining Amendment (Standard Conditions of Mining Leases – Rehabilitation) *Regulation 2021.* In the event that there are any discrepancies between the conditions identified in this Plan and those included in the Mining Authorities for the Mine Site following updates to the conditions of these Mining Authorities, this Plan will be updated to correct these discrepancies.

#### 2.2 Final Land Use Options Assessment

A final land use options assessment is not required for the Mine as DA 6/95 states that development is to be undertaken in accordance with the Environmental Impact Assessment (EIS) (RWC, 1995) and Statement of Environmental Effects for ML 1383 – Tritton Expansion Project - Stage 1 (Tritton, 2007) for the Mine. Section 2.11 of the EIS (RWC, 1995) provides a general description of the final land use, including retained final voids, and revegetated landforms capable of supporting grazing activities and native vegetation commensurate with surrounding areas.

Further, the approved *Mining Operations Plan* (MOP) for the Mine (RWC, 2017) defines the final land use to be light agricultural grazing activities reflecting the pre-mining land uses within the area, or native vegetation conservation. Section 4.2 of the MOP defines that the final land use goals are as follows.

- To provide a low maintenance, stable and safe landform commensurate with grazing land use capability.
- To revegetate with native tree and shrub species comparable with pre-existing vegetation communities.
- To provide a stable ground cover for erosion control.

It should be noted that native vegetation communities are utilised for light grazing within and in the vicinity of the Mine Site. Due to the local and regional climate of the Mine Site native species are generally more well-adapted and as such require lower inputs than exotic species. Based on the above, native vegetation communities within and in the vicinity of the Mine Site have been used to identify a mixed suite of species that will be used in rehabilitation. In addition, exotic species may be used where required and as relevant, such as for rapid stabilisation of disturbed areas, or where the use of exotic species may be suitable for areas identified for agricultural grazing.

The most-recently approved final landform is displayed on Plan 4 of the MOP, reproduced as Figure 9.



Table 3
Regulatory Requirements for Rehabilitation

	Condition				Page 1 of 9
Consent	No. or	Requirement	Area	Timing	RMP Section
DA 6/95	1	The Development shall take place generally in accordance with the "Statement of Environmental Effects", prepared by Stairs Tritton Mines, dated 9 March 2011.	ML1383	During operations and rehabilitation works	Noted.
	10	Following completion of the ROM Pad, all material used for construction of the pad shall be removed and appropriately disposed of considering the potential for contaminated material. Prior to rehabilitation of the ROM Pad site, the land shall be assessed for potentially contaminated land in accordance with the relevant contamination guidelines/legislation. If required, the site shall be remediated and validated to demonstrate the site is suitable for the future land use of the site.	ROM Pad		
	11	Following any required remediation, the Site shall be revegetated immediately in accordance with the "Tritton Mine Operation Plan", dated March 2010.	ML1383	During operations and rehabilitation works	Noted.
Environmental	2.11.1	To provide a low maintenance, stable and safe landform commensurate with a grazing land use capability.	ML1383	During	5
Impact Statement		To revegetate with native tress and scrub species comparable with pre-existing vegetation communities.		rehabilitation	6.2.6.2
(RWC, 1995)		To provide a stable ground cover for erosion control.			2
	4.9	As far as practicable minimise impacts on scenic amenity.			2
	2.11.2	Construct the final landform in accordance with Section 2.11.2 of the EIS (RWC, 1995) to maintain long term safety of the landform.			6.2.6
	2.11.3	Construct the waste rock emplacement such that any waste rock identified as potentially acid forming is encapsulated.			6.2.6
		Construct the landform so that the surface is free draining and suitable for revegetation with native groundcover, shrub and tree species.			
	2.11	Remove all infrastructure not required for the final land use.			6.2.2.2
	(general)	Revegetate all hardstand and infrastructure areas using a combination of pasture, shrubs and trees.			



		Regulatory Requirements for Renabilitation			Page 2 of 9
Consent	Condition No. or Section	Requirement	Area	Timing	RMP Section
Statement of Environmental Effects (Tritton, 2007)	5.8	Provide a landform for controlled grazing of livestock with a post-closure aim to provide a decommissioned site which consists of stable non-polluting structures that are vegetated with self-sustaining vegetation.			6.2.5
Mining Leases	5			•	
ML1383	4	Must prevent or minimise harm to the environment 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. In this clause – harm to the environment has the same meaning as in the <i>Protection of the Environment Operations Act</i> 1997.	ML1383	During operation and rehabilitation	Noted.
	5	<b>Rehabilitation to occur as soon as reasonably practicable after disturbance</b> 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.			Noted.
	6	Rehabilitation must achieve final land use The holder of a mining lease must ensure that rehabilitation of the mining area achieves the final land use for the mining area. 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). 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. In this clause – <i>final land use</i> for the mining area means the final landform and final land uses to be achieved for the mining area – as set out in the rehabilitation objectives statement and rehabilitation plan, and 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. <i>planning approval</i> means – a development consent within the meaning of the <i>Environmental Planning and Assessment Act 1979</i> , or an approval under that Act, Division 5.1.		During rehabilitation	2.3



Consent	Condition No. or Section	Requirement	Area	Timing	RMP Section
Mining Leas	ses (Cont'd)				
Mining Leases ML1383 (Cont'd)	7	Rehabilitation risk assessment The holder of a mining lease must conduct a risk assessment (a <i>rehabilitation risk assessment</i> ) that – identifies, assesses and evaluates the risks that need to be addressed to achieve the following in relation to the mining lease – the rehabilitation objectives, the rehabilitation completion criteria, for large mines – the final land use as spatially depicted in the final landform and rehabilitation plan, and identifies the measures that need to be implemented to eliminate, minimise or mitigate the risks. The holder of the mining lease must implement the measures identified. The holder of a mining lease must conduct a rehabilitation risk assessment – for a large mine – before preparing a rehabilitation management plan, and for a small mine – before preparing the rehabilitation outcome documents for the mine, and whenever a hazard is identified under clause 6(3) – as soon as reasonably practicable after it is identified, and 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— 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 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.		During construction, operation and rehabilitation	Noted.
	9	General requirements for documents A document required to be prepared under this Division must— be in a form approved by the Secretary, and <b>Note—</b> The approved forms are available on the Department's website. include any matter required to be included by the form, and if required to be given to the Secretary—be given in a way approved by the Secretary.		During construction, operation and rehabilitation	This Plan.



Consent	Condition No. or Section	Requirement	Area	Timing	RMP Section
Mining Leas	ses (Cont'd)				
ML1383	10	Rehabilitation management plans for large mines		During	This
(Cont'd)		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—		construction, operation and	Plan.
		a description of how the holder proposes to manage all aspects of the rehabilitation of the mining area,		rehabilitation	
		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,			
		a summary of rehabilitation risk assessments conducted by the holder,			
		the risk control measures identified in the rehabilitation risk assessments,			
		the rehabilitation outcome documents for the mining lease,			
		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.			
		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.			
		A rehabilitation management plan is not required to be given to the Secretary for approval.			
		The holder of the mining lease—			
		must implement the matters set out in the rehabilitation management plan, and			
		if the forward program specifies timeframes for the implementation of the matters—must implement the matters within those timeframes.			
	11	Amendment of rehabilitation management plans		During	Noted.
	The holder of a mining lease must amend the rehabilitation management plan for the follows—	The holder of a mining lease must amend the rehabilitation management plan for the mining lease as follows—		construction, operation	
		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,	and rehabilitatio	rehabilitation	
		as a consequence of an amendment made under clause 14 to a rehabilitation outcome document—within 30 days after the amendment is made,			
		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,			
		whenever given a written direction to do so by the Secretary—in accordance with the direction.			



Consent	Condition No. or Section	Requirement	Area	Timing	RMP Section
Mining Leas	es (Cont'd)				
ML1383 (Conťd)	12	<b>Rehabilitation outcome documents</b> The holder of a mining lease must prepare the following documents ( <i>the rehabilitation outcome</i> <i>documents</i> ) for the mining lease and give them to the Secretary for approval—		During construction, operation	4.2, 5.1
		the <b>rehabilitation objectives statement</b> , which sets out the rehabilitation objectives required to achieve the final land use for the mining area,		and rehabilitation	
		the <b>rehabilitation completion criteria statement</b> , which sets out criteria, the completion of which will demonstrate the achievement of the rehabilitation objectives,			
		for a large mine, the <i>final landform and rehabilitation plan</i> , showing a spatial depiction of the final land use.			
		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.			
	13	Forward program and annual rehabilitation report		During	11
		The holder of a mining lease must prepare a program (a <i>forward program</i> ) for the mining lease that includes the following—		construction, operation and	
		a schedule of mining activities for the mining area for the next 3 years,		rehabilitation	
		a summary of the spatial progression of rehabilitation through its various phases for the next 3 years,			
		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.			
		The holder of a mining lease must prepare a report (an <i>annual rehabilitation report</i> ) for the mining lease that includes—			
		a description of the rehabilitation undertaken over the annual reporting period,			
		a report demonstrating the progress made through the phases of rehabilitation provided for in the forward program applying to the reporting period,			
		a report demonstrating progress made towards the achievement of the following—			
		the objectives set out in the rehabilitation objectives statement,			
		the criteria set out in the rehabilitation completion criteria statement,			
		for large mines—the final land use as spatially depicted in the final landform and rehabilitation plan.			



Consent	Condition No. or Section	Requirement	Area	Timing	RMP Section
Mining Leas		Requirement	Alea		Occion
ML1383 (Cont'd)	13 (Cont'd)	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.			
		The holder of the mining lease must give the forward program and annual rehabilitation report to the Secretary.			
		In this clause— annual reporting period means each period of 12 months commencing on—			
		the date on which the mining lease is granted, or			
		if the Secretary approves another date in relation to the mining lease— the other date			
	14	Amendment of rehabilitation outcome documents and forward program		During	Noted.
		This clause applies to—		construction, operation	
		a rehabilitation outcome document if it has been approved by the Secretary, and		and	
		a forward program if it has been given to the Secretary.		rehabilitation	
		The holder of a mining lease must not amend a document to which this clause applies that relates to the mining lease unless—			
		the Secretary gives the holder a written direction to do so, or			
		the Secretary, on written application by the holder, gives a written approval of the amendment.			
		The holder of the mining lease must amend the document in accordance with the Secretary's direction or approval.			
		Nothing in this clause prevents the holder of a mining lease preparing a draft amendment for submission to the Secretary for approval.			



Consent	Condition No. or Section	Requirement	Area	Timing	Page 7 of RMP Section
Mining Leas	ses (Cont'd)				
		Times at which documents must be prepared and given         The holder of a mining lease must do the following before the end of the initial period—         prepare a rehabilitation management plan, and         prepare rehabilitation outcome documents and give them, other than the rehabilitation completion criteria         statement, to the Secretary for approval, and         prepare a forward program and give it to the Secretary.         The holder of the mining lease must prepare a forward program and annual rehabilitation report and give them to the Secretary before—         60 days after the last day of each annual reporting period, commencing with the annual reporting period in which the forward program was given to Secretary under subclause (1)(c), or         a later date approved by the Secretary.         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.         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—         60 days after a development consent is modified following an application referred to in clause 20(1)(b), or         a later date approved by the Secretary.         A rehabilitation completion criteria statement is not required to be given to the Secretary under subclause (4) unless a rehabilitation completion criteria statement is not required to be given to the Secretary under subclause (4) unless a rehabilitation completion crite	Area	Timing During construction, operation and rehabilitation	This Plan.
		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. The holder of the mining lease must comply with the direction.			
		In this clause— initial period means the period commencing when the mining lease is granted and ending—			
		30 days, or other period approved by the Secretary, after this Division first applies to the mining lease, or			
		if this Division applies to the mining lease because of an increase in the required security deposit—			
		when the surface of the mining area is disturbed by activities under the mining lease, or			
		at a later date approved by the Secretary.			



Consent	Condition No. or Section	Requirement	Area	Timing	RMP Section
			7 li ou		
Mining Leas ML1383 (Cont'd)	ses (Cont'd) 16	Certain documents to be publicly available This clause applies to the following documents— a rehabilitation management plan, a forward program, an annual rehabilitation report. The holder of a mining lease must make a document to which this clause applies publicly available by— publishing it on its website in a prominent position, or if the holder does not have a website— providing a copy of it to a person— on the written request of a person, and without charge, and within 14 days after the request is received. If a document is published on the website of the holder of the mining lease, the holder must ensure that it is published— for a rehabilitation management plan—within 14 days after it is prepared or amended, or for a forward program or an annual rehabilitation report—within 14 days after it is given to the Secretary or amended, Personal information within the meaning of the <i>Privacy and Personal Information Protection Act 1998</i> is not		During construction, operation and rehabilitation	Noted.
	17	required to be included in a document made available to a person under this clause.  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.		During construction, operation and rehabilitation	Noted.





					Page 9 of 9
Consent	Condition No. or Section	Requirement	Area	Timing	RMP Section
Mining Lease	es (Cont'd)				
ML1383 (Cont'd)	18	Report on non-compliance         The holder of a mining lease must provide the Minister with a written report detailing any non-compliance with—         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.         a requirement of the Act or this Regulation relating to activities under the mining lease.         The holder of the mining lease must provide the report within 7 days after becoming aware of the non-compliance.         The holder of the mining lease must ensure the report—         identifies the condition of the mining lease, or the requirement of the Act or this Regulation, to which the non-compliance relates, and         describes the non-compliance and specifies the date or dates on which, or the period during which, the non-compliance occurred, and         describes the causes or likely causes of the non-compliance, and         describes the action that has been taken, or will be taken, to mitigate the effects, and to prevent any recurrence, of the non-compliance.		During construction, operation and rehabilitation	Noted.



### 2.3 Final Land Use Statement

Final land uses within the Mine Site will include the following.

- Native Ecosystem includes the Waste Rock Emplacements.
- Agricultural (Grazing) includes areas that will be rehabilitated using mixed native and exotic species occurring in the vicinity of the Mine Site to allow for light grazing.
- Water Storage Area includes the North Dam, Twin Tanks and other sediment basins.
- Final Void Area includes the North East Open Pit, Hartmans Open Pit and Larsens Open Pit.

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

### 2.4 **Final Land Use and Mining Domains**

The Form and Way: Rehabilitation Management Plan for Large Mines (July 2021) guideline defines a domain as follows.

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

#### 2.4.1 Final Land Use Domains

**Table 4** defines the final land use domains for the Mine Site and Figure 7 displays the final landuse domains for the Mine Site.

Final Land Use Domain	Domain ID <sup>1</sup>	Domain Description		
Native Ecosystem	Α	Includes the Waste Rock Emplacements within the Mine Site.		
Agricultural Area - Grazing	В	Includes areas that will be rehabilitated to be suitable for light grazing agricultural purposes (i.e. areas of mine-related disturbance, stockpiles, ROM Pad and infrastructure and access tracks not being retained).		
Water Storage Area	G	Includes all water management infrastructure to be retained for the final land use (i.e. the North Dam, Double Tanks and other sediment basins).		
Final Void Area	J	Includes the North East Open Pit, Hartmans Open Pit, and Larsens Open Pit.		
Note 1: See Figure 7				

Table 4Final Land Use Domains







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### 2.4.2 Mining Domains

**Table 5** defines the mining domains for the Mine Site and **Figure 8** displays the mining domains for the Mine Site.

Tal	ble 5
Mining	Domains

Mining Domain	Domain ID <sup>1</sup>	Domain Description
Infrastructure Area	1	Includes the existing magazine and ROM Pad, transformer/switch room, magazine, and miscellaneous structures including roads and parking area. Also includes areas of the Mine Site that have since been rehabilitated, including the Contractors Area, stockpiling areas, and other minor infrastructure such as access roads.
Water Management Area	3	Includes water management structures that contain clean water within the Mine Site or that are used as temporary storage locations for water sourced under licence from the Bogan River and water storage associated with runoff from the southern section of the Hartmans/Larsens Waste Rock Emplacement.
Overburden Emplacement Area	4	Includes the two former Waste Rock Emplacement Areas that are now under rehabilitation.
Active Mining Area (Open Cut Void)	5	Includes the North East Open Pit, Hartmans Open Pit, Larsens Open Pit and the decline portal and adjacent safety bunds.
Other (Topsoils Stockpiles)	8	Includes topsoil and subsoil stockpiles.
Note 1: See Figure 8	•	

Note 1: See Figure 8



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Source: Google Earth - 11 May 2020

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SCALE 1:12 000 (A4)

250

500 m

Figure 8

**MINING DOMAINS** 

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