



Site	Wongawilli Colliery	DOC ID	WWC EC PLN 012
Type	Plan	Date Published	1 August 2022
Doc Title	REHABILITATION MANAGEMENT PLAN		

WONGAWILLI COLLIERY

PA 09_0161

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SUMMARY TABLE

Summary Table

Name of mine	Wongawilli Colliery	
Commencement date	1 August 2022	
Revision date and version number	1 August 2022 (Version 1)	
Mining lease	Lease	Expiry
	ML 1596	07 October 2029
	ML 1565	Renewal application in process
	CCL 766	Renewal application in process
Name of lease holder(s)	Wongawilli Coal Pty Limited	
Date of submission	1 August 2022	

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ABBREVIATIONS

ALUM	Australian Land Use and Management
ASPAC	Australasian Soil and Plant Analysis Council
BHPBIC	BHP Billiton Illawarra Coal
CCC	Community Consultative Committee
CEMP	Construction Environmental Management Plans
CoPC	Contaminants of potential concern
DPE	Department of Planning and Environment
EEC	Endangered Ecological Community
EPA	Environment Protection Authority
EPL	Environment Protection Licence
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
ESCP	Erosion and Sediment Control Plan
FTE	Full time equivalent
IESCA	Illawarra Escarpment State Conservation Area
JSPL	Jindal Steel and Power Limited
Km	Kilometre
LEP	Local Environmental Plan
LFA	Landscape Function Analysis
LGA	Local government area
LW	Longwall
m	Metre
Mining Act	<i>Mining Act 1992</i>
MSDS	Material Safety Data Sheets
NATA	National Association of Testing Authorities
NPWS	National Parks and Wildlife Service
NWMD	North-West Mains Development
OEH	Office of Environment and Heritage
PCT	Plant Community Type
PKCT	Port Kembla Coal Terminal
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
RMP	Rehabilitation Management Plan
ROM	Run of mine
TARP	Trigger Action Response Plan
WCL	Wollongong Coal Limited
WWC	Wongawilli Colliery

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1 PART 1– INTRODUCTION TO MINING PROJECT

1.1 History of Operations

Wongawilli Colliery (WWC) is an underground coal mine located approximately 15 kilometres (km) south-west of Wollongong within the Wollongong and Wingecarribee local government areas (LGAs) as shown in **Figure 1.3.1**.

The mine is owned and operated by Wollongong Coal Limited (WCL), which is majority owned by Jindal Steel and Power Limited (JSPL).

WWC commenced operations in 1916 and until 2 November 2011 operated under Section 74 of Mining was first proposed in the Wongawilli area in 1906 and commenced in 1912. WWC was purchased by Hoskins in 1916 and the coal produced was washed and coked on site before being transported to the Lithgow Iron and Steel Plant. A blast furnace was commissioned by Hoskins at Port Kembla in 1927 and Australian Iron and Steel (AIS) was formed in 1928. Broken Hill Proprietary Company Ltd (BHP) acquired AIS in 1935.

The Elouera Colliery was formed from the merger of the Wongawilli and Nebo Collieries in 1993. These mines operated separately in adjoining reserves and mining had occurred in both the Bulli and Wongawilli seams. BHP became BHP Billiton Pty Ltd in 2000. The Colliery was operated by BHP Billiton Illawarra Coal (BHPBIC) until June 2005 and contract miner Delta commenced mining in October 2005. Gujarat NRE acquired the mining lease in December 2007 and the site was renamed NRE Wongawilli Colliery.

Historically, coal from WWC was transported by rail to the Port Kembla Steelworks Coal Preparation Plant. Washed coal was used either in the steelworks or transferred to the Port Kembla Coal Terminal (PKCT) for shipping to both national and international markets. Coal wash reject from the washery was railed back to the Wongawilli emplacement area adjacent to the WWC pit top. The emplacement area ceased its operations in November 2005 and has been rehabilitated and is not part of the current project area. Run of mine (ROM) coal is now transported unprocessed by rail to PKCT.

Mining of the Wongawilli seam (previously known as the No. 3 seam) reserves in the area has been undertaken for more than 80 years. Prior to mining within the No. 3 seam, initial mining in the area was undertaken in the Bulli seam (previously referred to as the No. 1 seam). To date WCL has undertaken mining activities in the Wongawilli seam at a depth of cover varying between 100 to 360 m.

In February 2014 the WWC Longwall (LW) was buried during extraction of Nebo LW 2 (LWN2). This combined with low coal prices and high Australian dollar at the time, led to WWC being placed on Care and Maintenance. On Saturday 6th July 2016, WCL recommenced mining operations. Due to the abandonment of the LW equipment in LWN2, WCL revised its mining plan to recommence the extraction of previously approved LW blocks N2-N6 using conventional pillar extraction techniques

WCL recommenced mining operations 6 July 2016. Due to the abandonment of the LW equipment in LWN2, WCL revised its mining plan to recommence the extraction of previously approved LW blocks N2-N6 using conventional pillar extraction techniques. Mining continued until March 2019 when strata control issues in the old outbye workings resulted in the cessation of mining operations. The mining equipment was recovered, and the old workings shut with power and ventilation being removed.

On 31 May 2019, WCL notified it was going on care and maintenance and soon after Modification 2 (Mod 2) was commenced and submitted on 17 November 2020 to the NSW Department of

Planning and Environment (DPE). Mod 2 was approved on 13 April 2022, extending the life of WWC by five years.

A summary of approved operations is provided in **Table 1.1**.

Table 1.1 Summary of Approved WWC Operations

Element	Approved operations
Operating hours	<p>24 hours per day, seven days per week.</p> <p>Unloading from coal handling / train loading infrastructure occurring during normal operational hours:</p> <ul style="list-style-type: none"> • 7 am to 6 pm Monday to Friday; • 8 am to 4 pm Saturday; and • no time on Sundays and public holidays. <p>Conveyance of coal from the Wongawilli upper pit top to the lower pit top to occur only during the normal operational hours of:</p> <ul style="list-style-type: none"> • 7 am to 6 pm Monday to Friday; • 8 am to 4 pm Saturday; and • no time on Sundays and public holidays. <p>Operations at the lower pit top to occur only during the normal operational hours of:</p> <ul style="list-style-type: none"> • 7 am to 6 pm Monday to Friday; • 8 am to 4 pm Saturday; and • no time on Sundays and public holidays
Coal seams	Bulli and Wongawilli Coal Seams.
Extraction rate	486,000 tonnes of ROM coal over the remaining life of this consent.
Approval period ending	30 June 2027.
Mining method	First working mining methods only.
Underground workings	Four 5.5 metre (m) wide by 3.6 m high roadways to enable access to the existing Wongawilli Shaft 1.
Existing Mine infrastructure (Wongawilli upper pit top)	<ul style="list-style-type: none"> • Administration offices • Material and chemical storage areas • Workshops • Bathhouse • Fuel and wash bays
Existing Mine infrastructure (Wongawilli lower pit top)	<ul style="list-style-type: none"> • Coal storage / loading bins • Crusher and screener • Stockpile area • 6 m high noise barrier
Avondale pit top	<ul style="list-style-type: none"> • Two portals • Cleared pad
Other infrastructure areas	Garden storage area.

Table 1.1 Summary of Approved WWC Operations

Element	Approved operations
Rail transport	<p>Maximum of 4 (one way) train movements a day.</p> <p>No train movements at night (i.e. the period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays).</p>
Waste management	<p>Waste rock to be stored underground within the existing and proposed North West Mains Development (NWMD) workings or utilised on the surface for landscaping and rehabilitation purposes.</p>
Mine ventilation	<ul style="list-style-type: none"> • Mine portals and vent shafts including; • two portals for personnel and materials; • one portal for coal extraction; • four access portals into the NWMD; <ul style="list-style-type: none"> – North West Mains B Portal; – North West Mains C Portal; – W9 Belt Conveyor Portal; – W10 Portal; and • Wongawilli Shaft 1, Nebo Shaft 3 and 4. <p>Existing Nebo area portals (Wonga Belts and Wonga Track) and ventilation shafts (Vent Shaft 3 and 4) are proposed to be closed off and rehabilitated and will no longer be in use.</p>
Workforce	<p>Employment of up to 150 full time equivalents (FTEs).</p>

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1.2 Current Development Consents, Leases and Licences

This section details the development consents, mining leases and other permits and licences relevant to the site and are provided in **Appendix A**.

Development consents and Project Approvals issued under the *Environmental Planning and Assessment Act 1979* (EP&A Act) relevant to the WWC are listed in **Table 1.2**.

Table 1.2 Wongawilli Colliery Development Consents

Approval	Date granted	Overview
MP 09_0030	24 October 2010	Project Approval for the Construction of a New Bath House and Office Extensions.
PA 09_0161	2 November 2011	Consolidation and continuation of mining operations.
PA 09_0161 (MOD 1)	27 November 2015	Extending the approved duration of mining operations by 5 years, to 2020.
PA 09_0161 (MOD 2)	13 April 2022	Extend the life of the Colliery by 5 years to enable continued development of the North West Mains Development.

Mineral authorisations and leases issued under the *Mining Act 1992* (Mining Act) relevant to the WWC operations are provided in **Table 1.3**.

Table 1.3 Wongawilli Colliery Mining Leases

Approval	Date granted	Overview
ML 1596	3 February 2012	Mining Lease
ML 1565*	2 August 2006	Mining Lease
CCL 766*	27 June 2005	Consolidated Coal Lease

* Renewal application in process

Environment Protection Licences (EPLs) issued by the Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997* (POEO Act) that are relevant to the WWC operations are provided in **Table 1.4**.

Table 1.4 Wongawilli Colliery EPLs

Approval	Anniversary date	Overview
EPL 1087	1 October	Environment Protection Licence - Wongawilli Colliery
EPL 12442	31 March	Environment Protection Licence - Avondale Colliery

Water licences issued under the *Water Management Act 2000* relevant to WWC operations are provided in **Table 1.5**.

Table 1.5 Wongawilli Colliery Water Licences

Approval	Date granted	Overview
WAL36487	16 March 2016	1500 ML/yr - Sydney Basin Nepean Groundwater Source – Nepean Management Zone 1
10WA118768	16 March 2016	Nominated works approval (connected to WAL36487)

Other approvals and licences issued to WCL relevant to WWC operations are provided in **Table 1.6**.

Table 1.6 Other Approvals

Approval	Date granted	Overview	Issued by
CDC272/09	26 February 2010	Complying Development Certificate for a ROM Coal Screening and Sizing Plant.	Principal Certifying Authority
D2011/1059	9 May 2011	Part 5 Approval - Avon Water Quality monitoring.	WaterNSW
D2011/13055	10 May 2011	Part 5 Approval - LW19 Subsidence Survey Line.	WaterNSW
D2013/18268	24 March 2013	Part 5 Approval - Nebo Longwalls N1 to N6 Monitoring.	WaterNSW
D2015/036046	04 March 2016	Special Area Access Mining Consent.	WaterNSW
5061480	NA	Radiation Control Licence/Registration.	EPA

1.3 Land Ownership and Land Use

WWC lease areas covers a range of Leasehold and Freehold lands as illustrated in **Figure 1.3.1**.

Additional land tenure and use figures are also provided for:

- Surface and sub-surface authorisations **Figure 1.3.2**
- Other land tenure **Figure 1.3.3**
- Land use – general (ALUM primary land uses) **Figure 1.3.4**
- Land use – roads and infrastructure **Figure 1.3.5**
- Land use – environmental **Figure 1.3.6**
- Land use – heritage **Figure 1.3.7**

The WWC pit top and associated infrastructure is on Freehold land owned by WCL.

The pit top site is surrounded by the Illawarra Escarpment State Conservation Area (IESCA), which is gazetted by the Office of Environment and Heritage (OEH) and administered by the NSW National Parks and Wildlife Service (NPWS) and owned by the Crown.

The Avondale Pit Top is located on Freehold land managed by Huntley Heritage Pty Ltd.

The ventilation shaft sites are within lands recognised as part of the Metropolitan Special Area which is regulated by the *Water NSW Act 2014*. These lands are owned and administered by WaterNSW.

Land tenure records for the applicable ML areas are detailed in **Table 1.7**.

Table 1.7 Land Ownership and Land Use

Lot number	Deposited Plan (DP)	Status	Landowner
ML 1596			
Lot 1	212322	Freehold	WCL
Lot 1	216373	Not stated	Sydney Water
Lot 2	216373	Not stated	Sydney Water

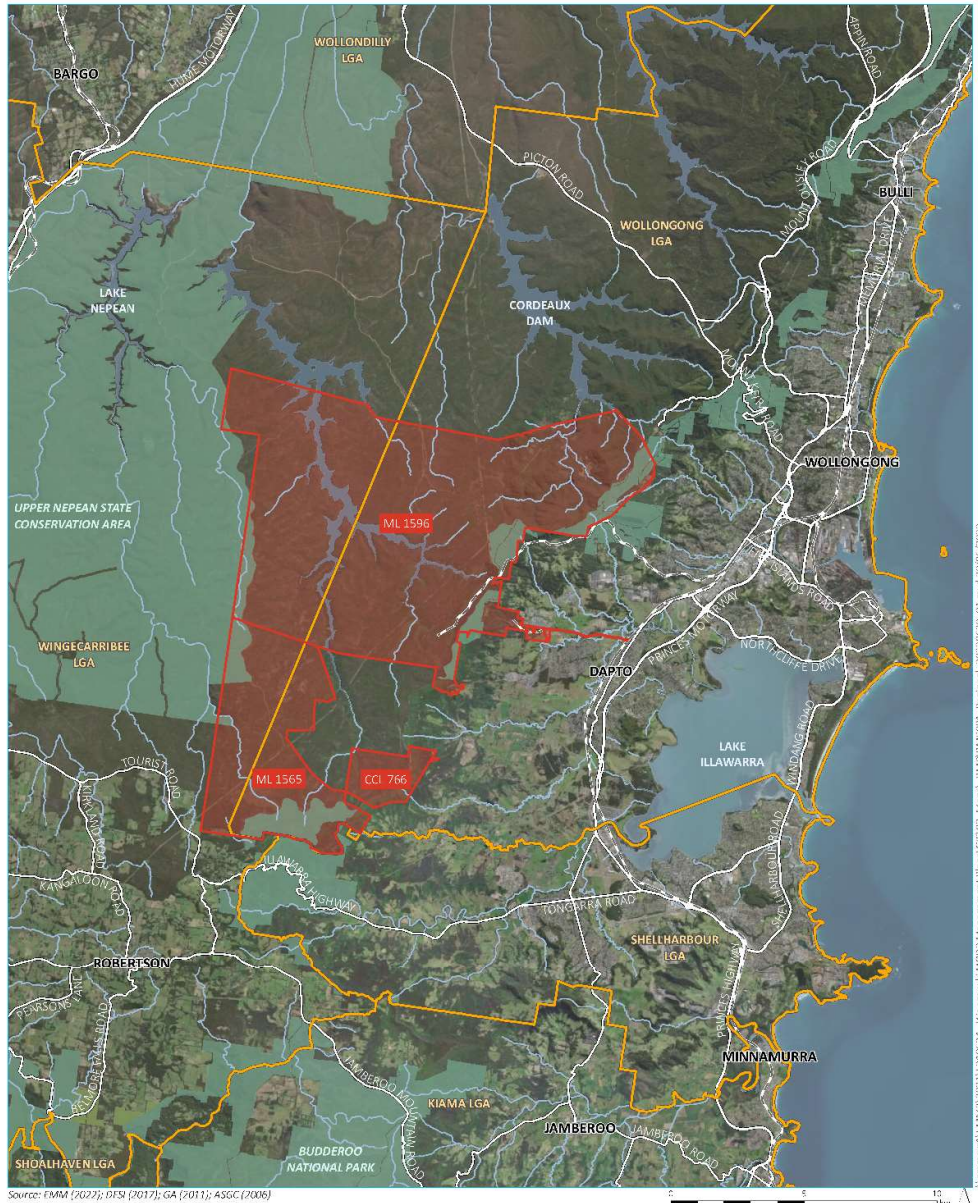
Table 1.7 Land Ownership and Land Use

Lot number	Deposited Plan (DP)	Status	Landowner
Lot 3	216373	Freehold	Private
Lot 1	255284	Freehold	WCL
Lot 2	255284	Freehold	WCL
Lot 3	255284	Freehold	WCL
Lot 4	255284	Freehold	WCL
Lot 5	255284	Freehold	WCL
Lot 6	255284	Freehold	WCL
Lot 7	255284	Freehold	WCL
Lot 14	255284	Freehold	WCL
Lot 8	255585	Freehold	Private
Lot 12	255285	Freehold	Endeavour Coal Pty Ltd
Lot 1	383829	Freehold	WCL
Lot 14	751278	Leasehold - Crown	NSW National Parks and Wildlife Service
Lot 16	751278	Leasehold - Crown	NSW National Parks and Wildlife Service
Lot 171	751278	Leasehold - Crown	NSW National Parks and Wildlife Service
Lot 196	751278	Leasehold - Crown	WaterNSW
Part Lot 217	751278	Leasehold - Crown	WaterNSW
Lot 219	751278	Leasehold - Crown	WaterNSW
Lot 220	751278	Leasehold - Crown	WaterNSW
Lot 221	751278	Leasehold - Crown	WaterNSW
Part Lot 275	751278	Freehold	Dendrobium Coal Pty Ltd
Lot 295	751278	Freehold	Springhill Farm Company Pty Ltd
Lot 281	751278	Leasehold - Crown	WaterNSW
Lot 282	751278	Leasehold - Crown	NSW National Parks and Wildlife Service
Lot 298	751278	Leasehold - Crown	NSW National Parks and Wildlife Service
Lot 303	751278	Leasehold - Crown	WaterNSW
Lot 304	751278	Leasehold - Crown	WaterNSW
Lot 2	986776	Freehold	Private
Part Lot 1	986776	Freehold	Private
Part Lot 1	1001210	Leasehold - Crown	WaterNSW
Lot 1	1001212	Leasehold - Crown	WaterNSW
Lot 1	1001213	Leasehold - Crown	WaterNSW
Lot 1	1006994	Leasehold - Crown	WaterNSW
Lot 301	1087464	Leasehold - Crown	WaterNSW
Lot 1	1033422	Freehold	Private

Table 1.7 Land Ownership and Land Use

Lot number	Deposited Plan (DP)	Status	Landowner
Part Lot 1	1103666	Freehold	Dendrobium Coal Pty Ltd
Part Lot 3	1103666	Freehold	Dendrobium Coal Pty Ltd
Part Lot 1	1103781	Freehold	Dendrobium Coal Pty Ltd
Lot 2	1103781	Freehold	Dendrobium Coal Pty Ltd
Lot 3	1103781	Freehold	Dendrobium Coal Pty Ltd
Part Lot 18	1111734	Freehold	Dendrobium Coal Pty Ltd
Lot 421	11088957	Freehold	WCL
Lot 422	1123956	Freehold	WCL
Lot 423	1123956	Freehold	WCL
Lot 424	1123956	Freehold	WCL
Lot 425	1123956	Freehold	WCL
Lot 19	1131362	Leasehold - Crown	WaterNSW
Lot 1	1132869	Leasehold - Crown	The Minister for Public Works
ML1565			
Lot 41	751263	Freehold	Private
Lot 42	751263	Freehold	Private
Part Lot 43	751263	Freehold	Private
Lot 111	751263	Freehold	Private
Part Lot 140	751277	Leasehold - Crown	WaterNSW
Part Lot 181	751277	Leasehold - Crown	WaterNSW
CCL 766			
Part Lot 27	3083	Freehold	HTT Huntley Heritage Pty Ltd
Part Lot 111	585959	Freehold	Private
Lot 2	751263	Freehold	The Council of the City of Wollongong
Part Lot 40	751263	Freehold	Private
Lot 49	751263	Freehold	HTT Huntley Heritage Pty Ltd
Part Lot 55	751263	Freehold	HTT Huntley Heritage Pty Ltd
Part Lot 3	852180	Leasehold - Crown	Private
Lot 10	867347	Leasehold - Crown	HTT Huntley Heritage Pty Ltd
Across all leases			
Lot 32	1138149	Leasehold - Crown	WaterNSW

Figure 1.3.1 Land Ownership and Land Use Figure



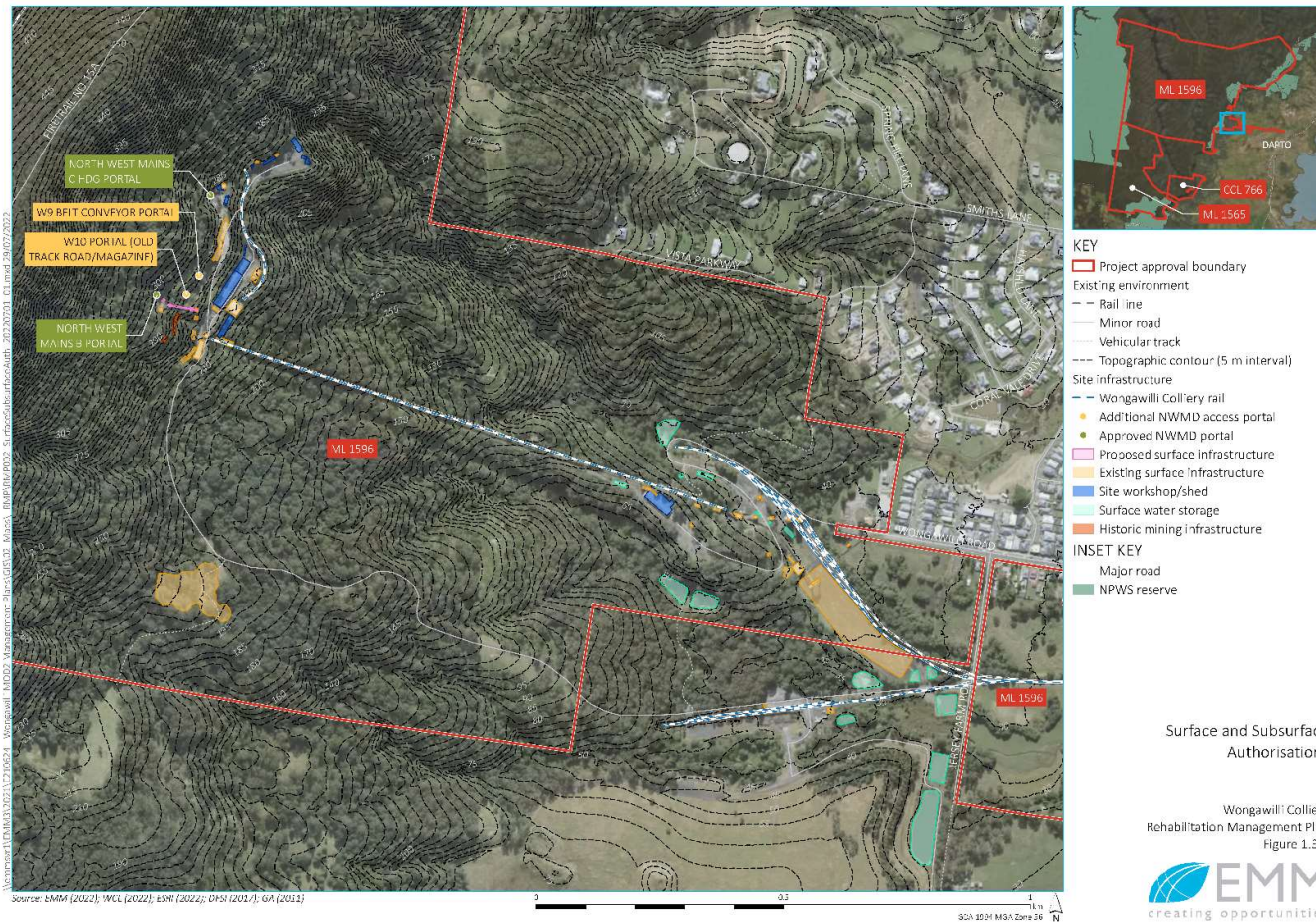
Sources: EMM (2022); DFS (2017); GA (2011); ASGC (2006)

State-wide context

- KEY**
- Project approval boundary
 - Local government area
 - Rail line
 - Named waterbody
 - Major road
 - NPWS reserve
 - Named watercourse
 - State forest

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Figure 1.3.2 Surface and Sub-Surface Authorisations



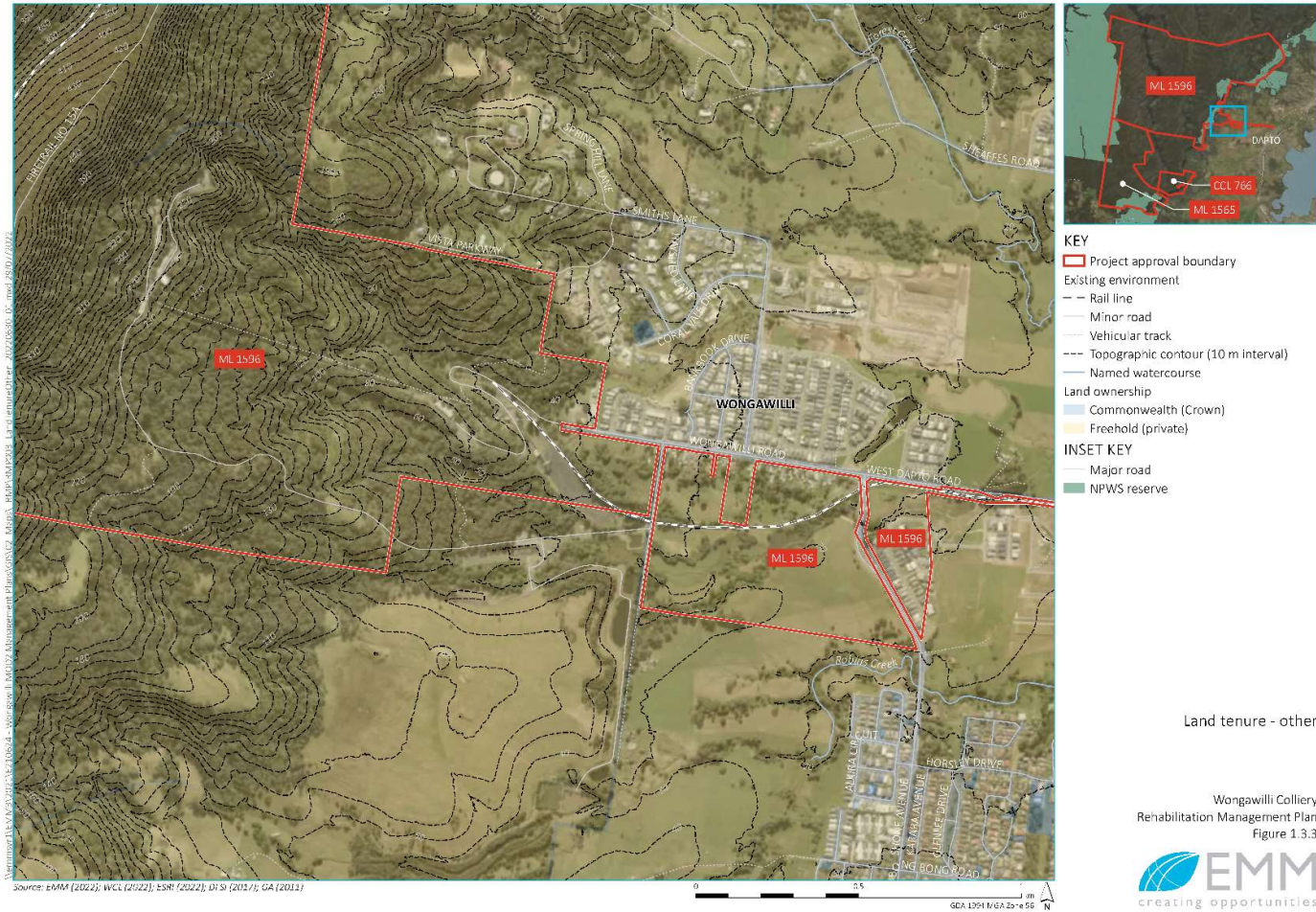
Surface and Subsurface Authorisations

Wongawilli Colliery Rehabilitation Management Plan
Figure 1.3.2



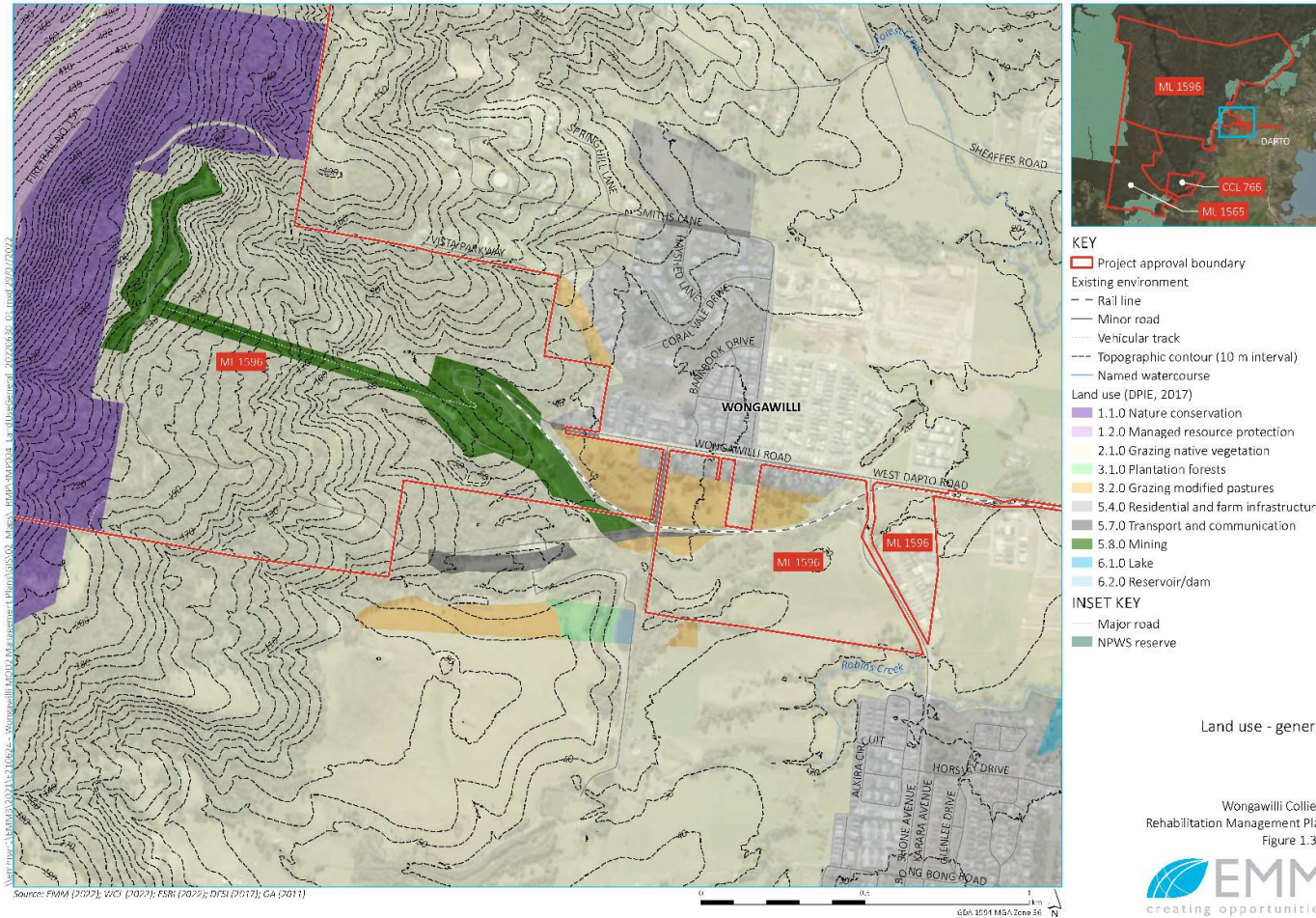
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Figure 1.3.3 Land Tenure – Other



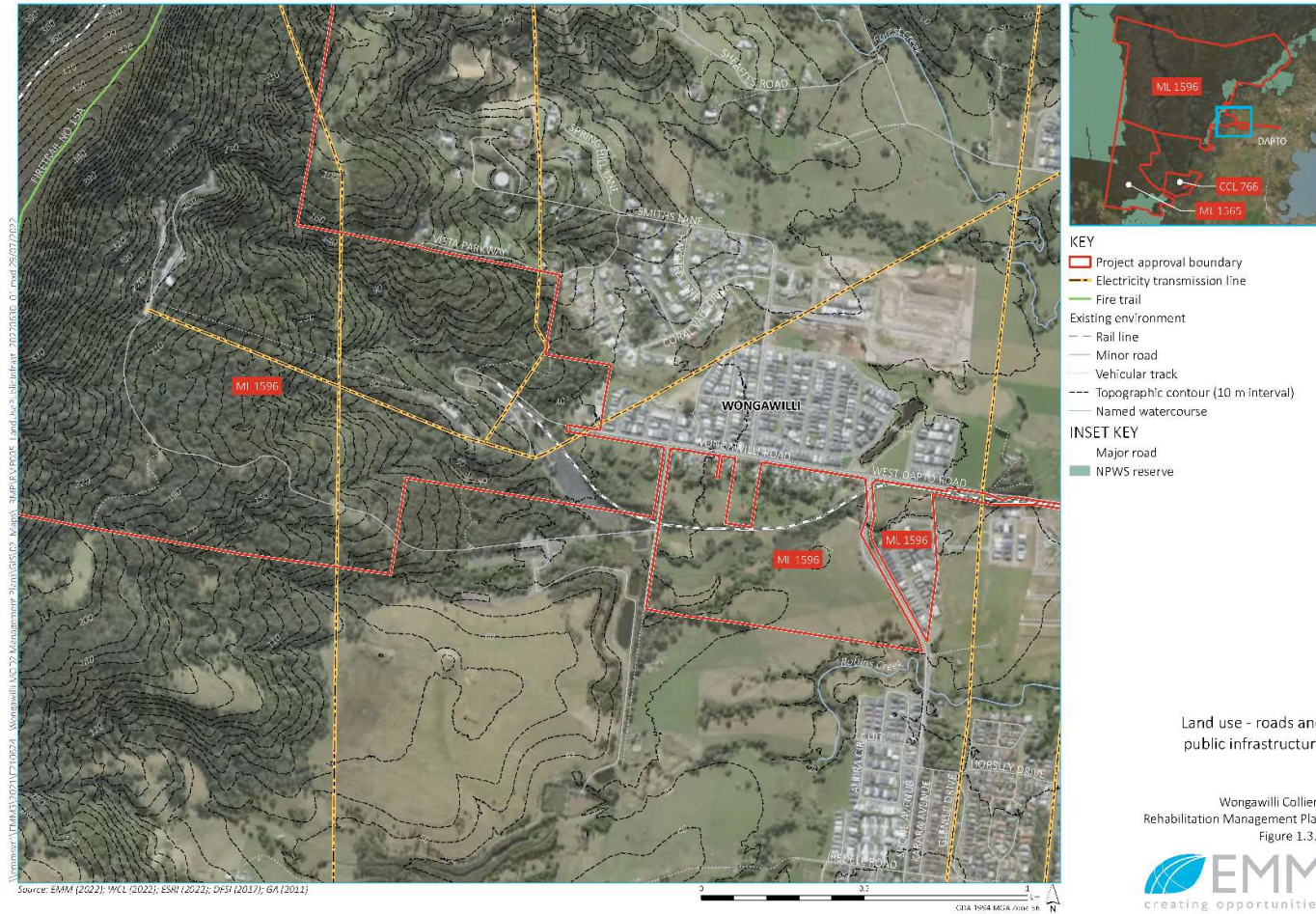
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Figure 1.3.4 General Land Use (ALUM Primary Land Use)



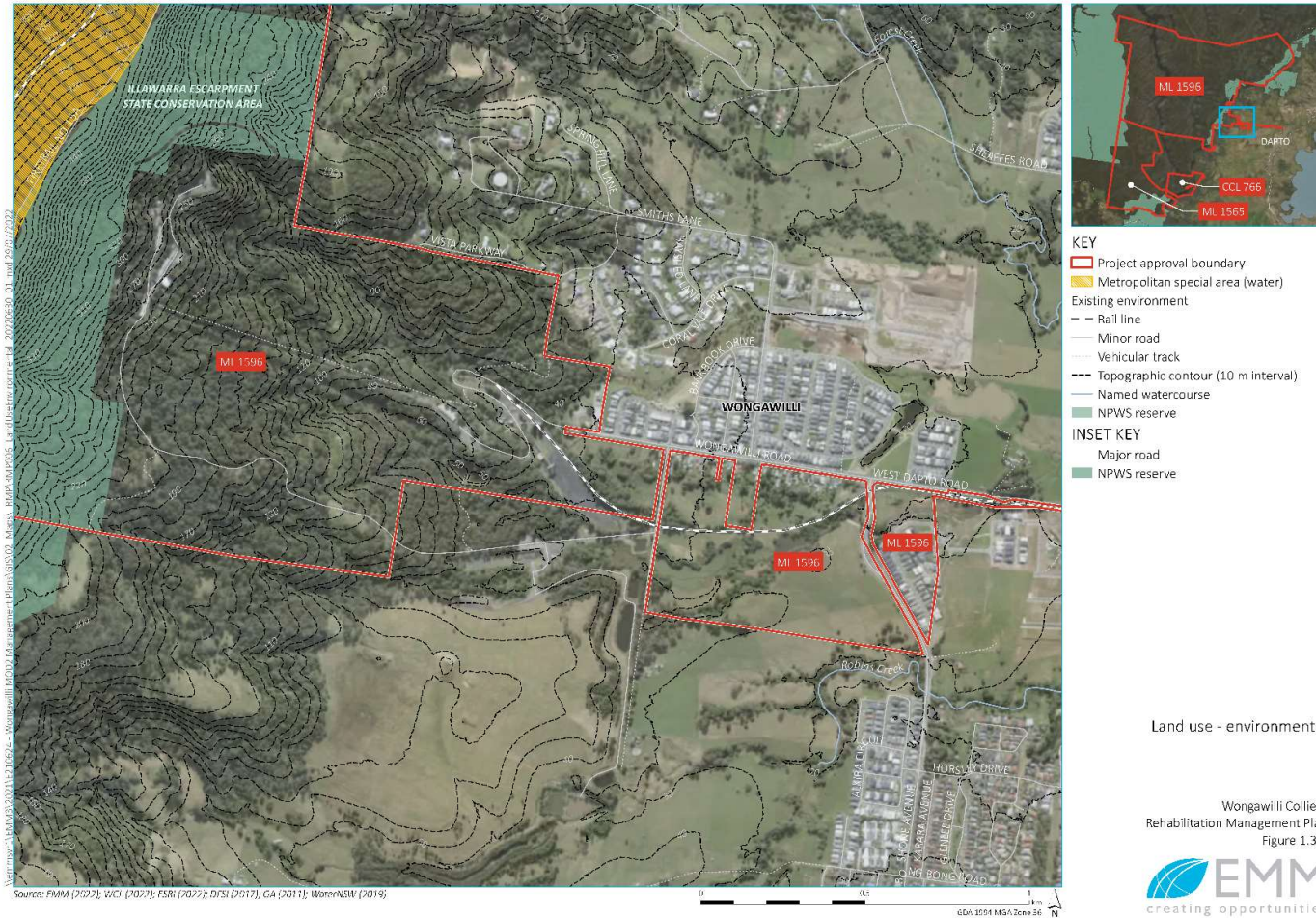
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Figure 1.3.5 Land Use – Roads and Infrastructure



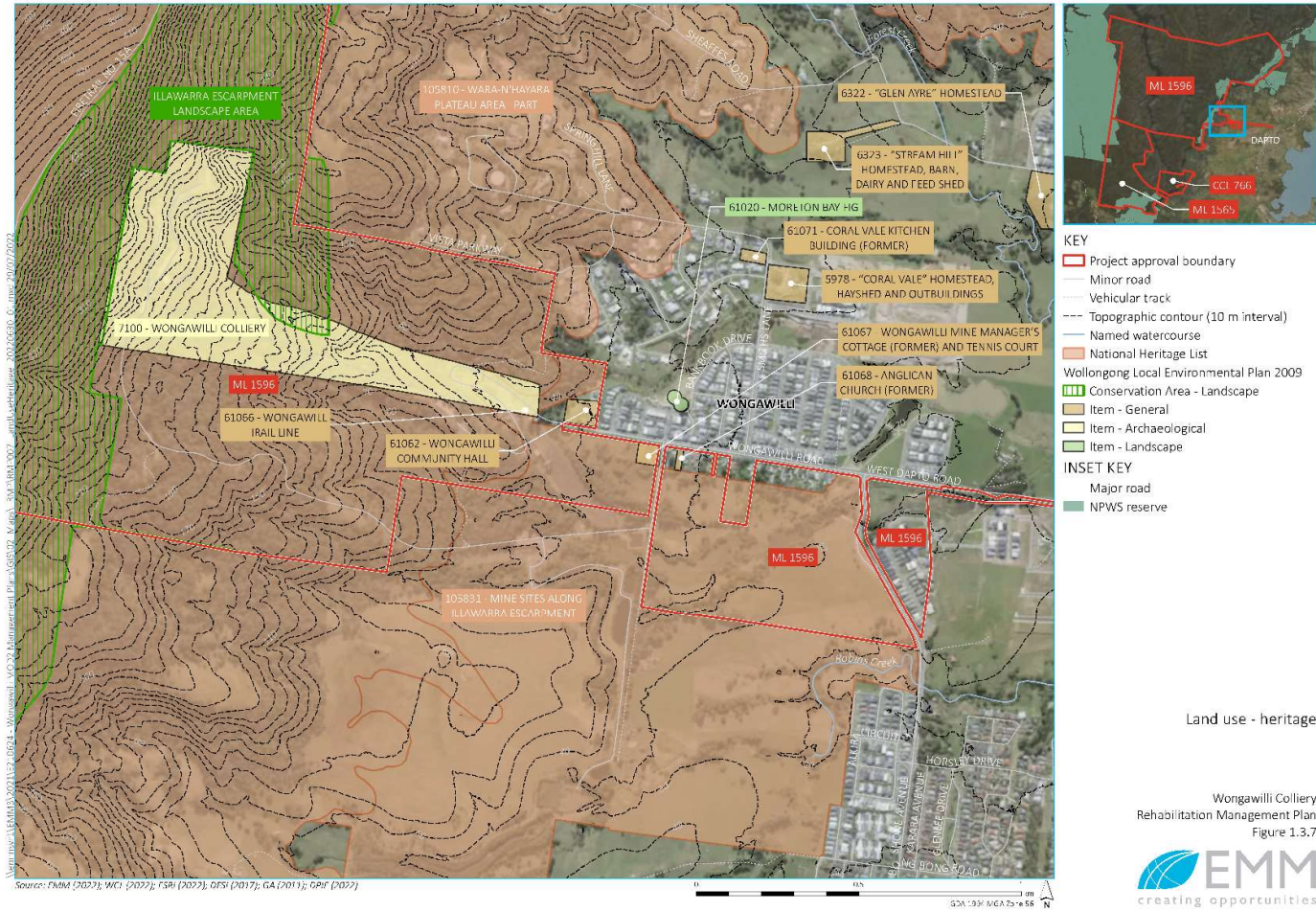
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Figure 1.3.6 Land Use – Environmental



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Figure 1.3.7 Land Use – Heritage





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2 PART 2 – FINAL LAND USE

2.1 Regulatory Requirements for Rehabilitation

Regulatory requirements for rehabilitation applicable to the colliery are listed in **Table 2.1**.

These include requirements specified in the project approval, mining leases, relevant legislation and guidelines and other statutory approvals, permits and licences issued for the site.

No final land-uses are mandated in the Development Approvals or Development Consents that apply to the project.

As the mine is defined as a large mine – in that it has one or mining leases and the carrying out of activities under at least one of which requires an environmental protection licence (EPL) under the Protection of the Environment Operations Act 1997 – the new standard rehabilitation conditions will apply to all mining leases on the project. The relevant standard rehabilitation conditions are listed in **Table 2.1**.

It is noted that in most instances the MLs contain the same standard conditions.

Table 2.1 Regulatory Requirements for Rehabilitation

Instrument	Condition	Applicable domains/ land parcels	Timing	RMP Section																		
DA 09_0161	<p><u>Condition 26, Schedule 4 (Rehabilitation Objective)</u></p> <p>The Applicant must rehabilitate the site in accordance with the conditions imposed on the mining lease(s).</p> <p>associated with the development under the <i>Mining Act 1992</i>. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the documents listed in condition 2(a) of Schedule 2, and comply with the objectives in Table 13.</p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Mine site (as a whole)</td> <td>Safe, stable & non-polluting. Final land use compatible with surrounding land uses.</td> </tr> <tr> <td>Surface infrastructure</td> <td>To be decommissioned and removed, unless the RR agrees otherwise</td> </tr> <tr> <td>Portals and vent shafts</td> <td>To be decommissioned and made safe and stable. Retain habitat for threatened species (eg bats), where practicable</td> </tr> <tr> <td>Watercourses of 2nd order or above subject to subsidence impacts</td> <td>Hydraulically and geomorphologically stable</td> </tr> <tr> <td>Cliffs</td> <td>No additional risk to public safety compared to prior to mining</td> </tr> <tr> <td>Other land affected by the development</td> <td>Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> local native plant species (unless the RR agrees otherwise); and a landform consistent with the surrounding environment </td> </tr> <tr> <td>Built features damaged by mining operations</td> <td>Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"> the owner agrees otherwise; or the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>. </td> </tr> <tr> <td>Community</td> <td>Ensure public safety. Minimise the adverse socio-economic effects associated with mine closure</td> </tr> </tbody> </table>	Feature	Objective	Mine site (as a whole)	Safe, stable & non-polluting. Final land use compatible with surrounding land uses.	Surface infrastructure	To be decommissioned and removed, unless the RR agrees otherwise	Portals and vent shafts	To be decommissioned and made safe and stable. Retain habitat for threatened species (eg bats), where practicable	Watercourses of 2 nd order or above subject to subsidence impacts	Hydraulically and geomorphologically stable	Cliffs	No additional risk to public safety compared to prior to mining	Other land affected by the development	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> local native plant species (unless the RR agrees otherwise); and a landform consistent with the surrounding environment 	Built features damaged by mining operations	Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"> the owner agrees otherwise; or the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>. 	Community	Ensure public safety. Minimise the adverse socio-economic effects associated with mine closure	1,3,6,8	Schedule to be developed	
Feature	Objective																					
Mine site (as a whole)	Safe, stable & non-polluting. Final land use compatible with surrounding land uses.																					
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Built features damaged by mining operations	Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"> the owner agrees otherwise; or the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>. 																					
Community	Ensure public safety. Minimise the adverse socio-economic effects associated with mine closure																					
<p><u>Notes to Table 13:</u></p> <p><i>These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by mining taking place after the date of this consent; and to all development surface infrastructure part of the development, whether constructed prior to or following the date of this consent.</i></p> <p><i>Rehabilitation of subsidence impacts and environmental consequences caused by mining which took place prior to the date of this consent may be subject to the requirements of other approvals (eg under a mining lease or a Subsidence Management Plan approval) or the Applicant's commitments.</i></p>																						

Table 2.1 Regulatory Requirements for Rehabilitation

Instrument	Condition	Applicable domains/ land parcels	Timing	RMP Section
DA 09_0161	<u>Condition 27, Schedule 4 (Progressive Rehabilitation)</u> The Applicant must carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.	1,3,6,8	Noted	n/a
DA 09_0161	<u>Condition 27, Schedule 4 (Progressive Rehabilitation)</u> The Applicant must prepare and implement a Rehabilitation Management Plan for the development in accordance with the conditions imposed on the mining lease(s) associated with the development under the <i>Mining Act 1992</i> . This plan must:	1,3,6,8	Schedule to be developed	
	a) be prepared in consultation with the Department, BCS, MEG, DPE Water, WaterNSW, Council and the CCC;			Part 4
	b) be prepared in accordance with any relevant RR guideline, and be consistent with the rehabilitation objectives in the documents listed in condition 2(a) of Schedule 2 and in Table 13 (within Table 2.1);			Noted
	c) build, to the maximum extent practicable, on the other management plans required under this consent; and			Noted
	d) address all aspects of rehabilitation and mine closure, including final land use assessment, rehabilitation objectives, domain objectives, completion criteria and rehabilitation monitoring.			Part 2 Part 4 Part 5 Part 6 Part 8
	<u>Notes:</u> <i>The Rehabilitation Management Plan should address all land impacted by the development, whether prior to or following the date of this consent.</i> <i>The Rehabilitation Management Plan may be combined with a Mining Operations Plan, or similar plan, required under the mining lease granted for the development.</i>			
CCL 766	In accordance with CCL 766, it is required that, upon completion of operations, WCL rehabilitate the subject area and establish vegetation to satisfaction of Minister, the WNSW and other relevant stakeholders.	1,3,6,8	n/a	Part 2 Part 4 Part 5 Part 6 Part 8
ML 1596	<u>Clause 7</u> Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director-General.	1,3,6,8	n/a	Part 2
ML 1596	<u>Clause 28</u> The lease holder must, within a period of three (3) months from the date of this lease undertake, complete and lodge with the Director-General Department of Primary Industries, a "Rehabilitation Cost Estimates" in accordance with the Department of Primary Industries, Mineral Resources requirements.	1,3,6,8	n/a	n/a
ML 1596	<u>Clause 31</u> The lease holder shall: j) Complete work in relation to rehabilitation within the Metropolitan Special Area before termination of the authority to the satisfaction of the Authority.	1,3,6,8	n/a	n/a



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Table 2.1 Regulatory Requirements for Rehabilitation

Instrument	Condition	Applicable domains/ land parcels	Timing	RMP Section
ML 1565	<p><u>Clause 4</u> The Mining Operations Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:</p> <hr/> <p>b) mining and rehabilitation method(s) to be used and their sequence;</p> <hr/> <p>f) progressive rehabilitation schedules;</p> <hr/> <p>a) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining land-use/vegetation.</p>	1,3,6,8	Schedule to be developed	This RMP
ML 1565	<p><u>Clause 29</u> The lease holder shall:</p> <p>a) Complete work in relation to rehabilitation within the Metropolitan Special Area before termination of the authority to the satisfaction of the Authority.</p>	1,3,6,8	n/a	n/a

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2.2 Final Land Use Options Assessment

Wongawilli Colliery is established on land that was previously covered in native vegetation prior to the mine being established. The principal restoration objective is to return the Colliery's surface facilities to their original pre-mining condition, unless acceptable alternative uses can be found. Alternative land use options are limited by site topography and Council strategic planning such as the "Wollongong Local Environmental Plan (LEP)" allocated zone objectives and the Illawarra Escarpment Strategic Management Plan (refer Figure 5 for an overview of zonings).

The lands associated with the Pit Top within the Wollongong LEP 2009 are zoned for primary production (RU1) and environmental conservation (E1, E2). The lands associated with the mining operation within the WWC (West Dapto) LEP 2010 are zoned for primary production (RU1), environmental living (E3), low density residential (R2) and services corridor (SP2).

Options for final land use are limited as the majority of this land is subject to the zones with environment protection objectives. The largest portion of the area is zoned E1 and E2, with smaller portions lower down on the escarpment zoned E3 and R2, which allow for environmental conservation with low density residential allowed for in Zone R2.

The WWC Illawarra Escarpment Strategic Management Plan identifies the Pit Top as "Core Escarpment" and "Landscape Support". These are environmental conservation values assigned to the escarpment and foothills. Core Escarpment is the area of the escarpment that contain the highest environmental values. Landscape support areas are those areas of land that form a link between core and support areas of the escarpment and foothills with the coastal plain. The current permissible land uses for these zones are identified in the WWC Illawarra Escarpment Strategic Management Plan.

All of the Ventilation Shaft Sites are located in the Metropolitan Special Area (Zoned E2) and are required to be rehabilitated to native bushland in accordance with the requirements of WaterNSW.

2.3 Final Land Use Statement

The final land use for the mine will be native ecosystems with limited historical heritage (if any) and basic road infrastructure retained.

The retention of historical heritage is contingent on relevant sites/structures being accepted by a third-party, including full transfer of all associated liabilities. If no third parties wish to take on this heritage these structures will be demolished.

The lower pit areas associated with the coal handling facilities and rail loop are assumed to be returned to public use /native vegetation until final land use consultation has been completed.

Rehabilitation objectives described in this Rehabilitation Management Plan (RMP) are in accordance with those included in Schedule 4 Condition 26 of the Project Approval.

As noted, WWC is established on land that was previously covered in native vegetation. The principal restoration objective is to return the Colliery's surface facilities to their original pre- mining condition unless acceptable alternative uses can be found.

The preferred post mining land use for the Colliery is to rehabilitate the majority of disturbed areas back to natural bushland in imitation of the surrounding environment and in compliance with Mining Lease and Wollongong Local Environmental Plan (LEP) 2009 (as amended) allocated zone objectives. If areas are not zoned for environmental protection works, then dwellings or public spaces will be the preferred allocated land-uses.

The Continuing Use EA (ERM, 2010) included an assessment of the zone classifications that dictate the range of land reuse options and likely end use based on the assessment. A summary of the most likely land reuse options is provided in **Table 4-2**.

The final landform and the rehabilitation conducted will be designed to produce a stable landform and vegetation that is consistent with development consent / project approval requirements for the respective domain. Areas within the conceptual final landform design will consist of various vegetation communities which are consistent with the surrounding landscape.

2.4 Final Land Use and Mining Domains

2.4.1 Final Land Use Domains

WWC has three (3) final land-use domains as summarised in **Table 2.2** and shown in **Figure 2.4.1**.

Domain codes are in accordance with the Resources Regulator Mine Rehabilitation Portal Guideline (NSW RR, 2021).

Detailed descriptions of these domains are provided in the following sub-sections.

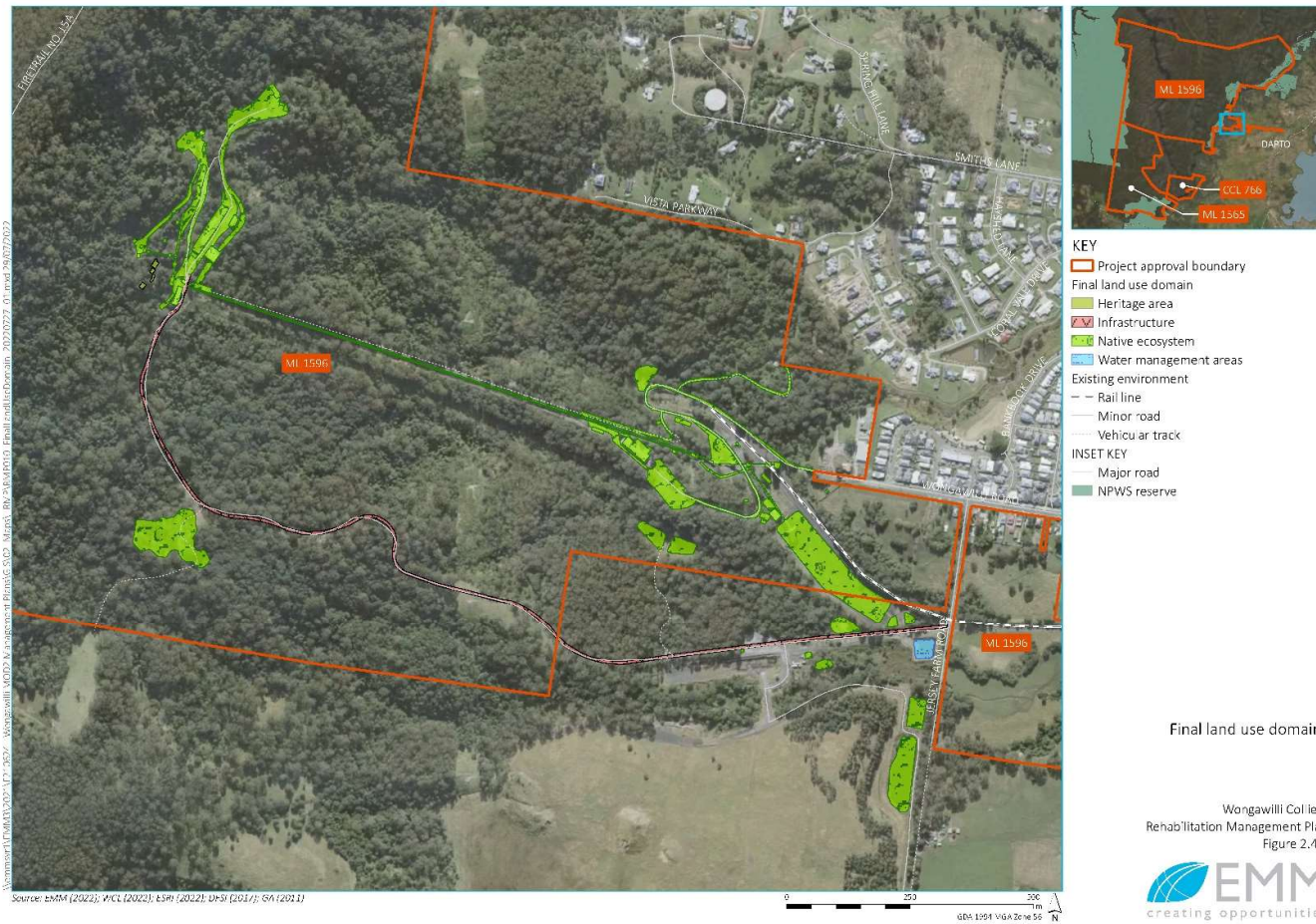
Table 2.2 Final Land Use Domains

Code	Domain name	Area (ha) ¹
A	Native ecosystems	13.17
G	Water storage (excluding final void)	0.21
H	Heritage area	0.06
I	Infrastructure area	1.93
Total		15.37

1. Area (ha) values determined based on GIS measurement and rounded

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Figure 2.4.1 Final Land Use Domains



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2.4.1.1 Domain A – Native Ecosystems

Several surveys and mapping of vegetation communities have been undertaken across the site and MLs however these are outdated, and information on the vegetation communities does not align with the current NSW BioNet Vegetation Classification System and index of Plant Community Types (PCTs).

The indicative PCTs likely present across the site are listed in **Table 2.3** and shown in **Figure 2.4.2**.

These PCTs can be broadly generalised as tall to very tall eucalypt forests including wet sclerophyll, dry sclerophyll and wet forest systems with mid-dense to dense mid-storeys comprised of palms, shrubs and small trees and vines; and with a lower storey consisting of ferns and grasses.

Areas nominated as Domain A (**Figure 2.4.1**) will be rehabilitated based on these PCTs, with applicable PCTs and distribution relative to Domain A rehabilitation areas to be formally identified through vegetation survey and PCT mapping.

The species to be used in revegetation (e.g. grasses, plants, shrubs and trees) is contingent on this PCT identification and mapping, with revegetation species mixes to be determined as part of the next update of this RMP once this information is known.



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Table 2.3 Indicative Plant Community Types (PCTs)

PCT ID	PCT Name	Summary Description	Area (Ha)
3077	Illawarra Complex Dry Rainforest	<ul style="list-style-type: none"> Mid-high to tall, mid-dense to dense rainforest, or occasionally very tall, sclerophyll open forest with a dense rainforest mid-stratum Occurs on the coast and foothills in the Illawarra area between Wollongong and Nowra, with a limited disjunct occurrence near Milton Occurs mainly in mild, wet locations receiving 1200–1510 mm mean annual rainfall, at low to mid elevations of 40–220 metres asl. In the Illawarra area it occurs on clay-rich sandstone or shale, Key tree species: <i>Streblus brunonianus</i>, <i>Elaeodendron australe</i> Other key species: vines <i>Eustrephus latifolius</i>, <i>Pandorea pandorana</i> and <i>Geitonoplesium cymosum</i>; <i>Pseuderanthemum variabile</i>, <i>Oplismenus imbecillis</i> and <i>Pellaea falcata</i>, occasionally with <i>Adiantum formosum</i>. 	0.253687
3078	Illawarra Lowland Wet Vine Forest	<ul style="list-style-type: none"> Very tall, sclerophyll open forest with dense small tree, shrub and vine mid-stratum, or occasionally mid-high to tall, mid-dense to dense forest with eucalypt emergents, occurring on fertile soils of the Illawarra lowlands between Wollongong and Nowra Occurs mainly in mild, wet locations receiving 1170–1530 mm mean annual rainfall, at low to mid elevations of 50–180 m Occurs on fertile soils derived from fine-grained igneous rock, clay-rich sedimentary lithology, sandstone enriched by upslope igneous layers or on alluvium Key trees species: <i>Eucalyptus tereticornis</i> and/or <i>Eucalyptus quadrangulate</i> Key shrubs and small tree species: <i>Notelaea venosa</i>, <i>Streblus brunonianus</i> and <i>Elaeodendron australe</i> Other key species: The vine <i>Geitonoplesium cymosum</i> is almost always present, <i>Pittosporum multiflorum</i> and vines <i>Pandorea pandorana</i>, <i>Eustrephus latifolius</i> and <i>Marsdenia rostrata</i> 	0.441046



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Table 2.3 Indicative Plant Community Types (PCTs)

PCT ID	PCT Name	Summary Description	Area (Ha)
3153	Illawarra Escarpment Bangalay x Blue Gum Wet Forest	<ul style="list-style-type: none"> • Very tall to extremely tall sclerophyll open forest with a sub-canopy of tall warm temperate rainforest trees, mesophyll shrubs and palms • Occurs on low to mid-elevation escarpment benches, slopes and gullies on the Illawarra Escarpment and hills on the Illawarra coastal plain • Associated with very high rainfall along and occasionally above, the Illawarra escarpment on deep chocolate shale soils from the Narrabeen formation south from the Hacking River and on clay rich Permian sediments, including siltstone, claystone and talus as well as Gerringong Latites south to Kangaroo Valley, Nowra and Shoalhaven • Key tree species: species from the <i>Eucalyptus saligna</i> ↔ <i>botryoides</i> complex, occasionally with <i>Syncarpia glomulifera</i> and <i>Eucalyptus pilularis</i> • Key shrub and small tree species: <i>Acmena smithii</i> with a high cover, <i>Livistona australis</i>, <i>Pittosporum undulatum</i>, <i>Cryptocarya glaucescens</i>, occasionally <i>Doryphora sassafras</i> and <i>Claoxylon australe</i> 	1.642269
3327	Illawarra Lowland Red Gum Grassy Forest	<ul style="list-style-type: none"> • Very tall sclerophyll open forest with a mid-stratum of soft-leaved shrubs and small trees, with a grassy ground layer on the foothills of the Illawarra coast • Occurs at low elevations of below 180 m on wet coastal foothills, where mean annual rainfall typically exceeds 1100 mm • Key trees species: <i>Eucalyptus tereticornis</i>, <i>Eucalyptus eugenioides</i> or <i>Eucalyptus globoidea</i>) • Key shrub and small tree species: <i>Acacia maidenii</i>, <i>Breynia oblongifolia</i> 	1.028812



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Table 2.3 Indicative Plant Community Types (PCTs)

PCT ID	PCT Name	Summary Description	Area (Ha)
3013	Illawarra Lowland Subtropical Rainforest	<ul style="list-style-type: none"> Tall to very tall, mid-dense to dense rainforest, or rarely very tall to extremely tall sclerophyll open forest with a dense rainforest sub-canopy Occurs mainly on the Illawarra lowlands between Helensburgh and Nowra, with disjunct and restricted occurrences near Milton and on the lower slopes of Mount Dromedary. Overstorey composition is diverse and variable Occurs mainly in mild, wet locations receiving 1200–1770 mm mean annual rainfall, at low to mid elevations of 60–300 m. In its main area of occurrence on the Illawarra Lowlands, it occurs on or close to basalt or in sheltered sites on clay-rich sediments Key tree species: <i>Dendrocnide excelsa</i>, commonly with <i>Doryphora sassafras</i> and <i>Toona ciliata</i> Key shrubs and small tree species: <i>Streblus brunonianus</i>, <i>Diospyros australis</i>, <i>Acmena smithii</i> and <i>Elaeodendron austral</i>. The palm <i>Livistona australis</i> is also very frequent Other key species: <i>Arthropteris tenella</i> (epiphytic fern) and vines <i>Eustrephus latifolius</i>, <i>Marsdenia rostrata</i>, <i>Pandorea pandorana</i> and <i>Gynochthodes jasminoides</i> 	0.000595



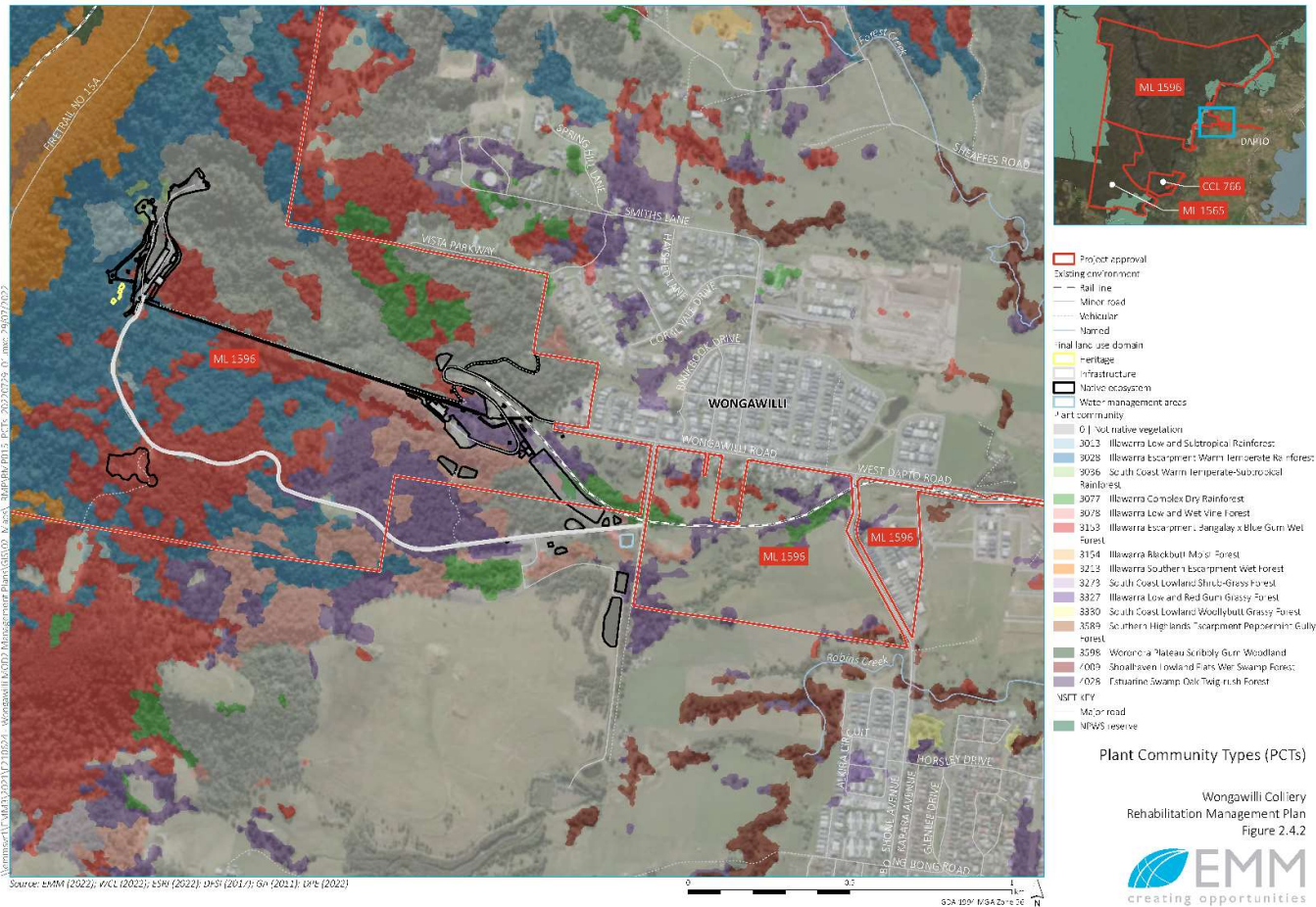
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Table 2.3 Indicative Plant Community Types (PCTs)

PCT ID	PCT Name	Summary Description	Area (Ha)
3028	Illawarra Escarpment Warm Temperate Rainforest	<ul style="list-style-type: none"> Tall to very tall dense rainforest, or rarely very tall to extremely tall eucalypt open forest with rainforest sub-canopy, which occurs mainly on the Illawarra escarpment and nearby areas between Royal National Park and Nowra, Central Coast, with a limited, disjunct occurrence in gullies in the ranges near Termeil, South Coast Occurs mainly in mild, wet to very wet locations receiving 1250–1860 mm mean annual rainfall, at mid elevations of 60–580 m. It occurs in gullies or on sheltered slopes below escarpment cliffs Occurs usually on Narrabeen sandstone, which occurs as narrow seams below the escarpment or, occasionally, more extensive areas on more gentle topography Key tree species: <i>Ceratopetalum apetalum</i>, <i>Acmena smithii</i> and <i>Doryphora sassafras</i> in varying proportions Key shrub and small tree species: palm <i>Livistona australis</i>, shrub <i>Tasmania insipida</i> Other key species: <i>Pyrosia rupestris</i> (epiphytic fern), <i>Blechnum cartilagineum</i> (ground fern) and vines <i>Gynochthodes jasminoides</i>, <i>Palmeria scandens</i>, <i>Pandorea pandorana</i>, <i>Smilax australis</i>, <i>Marsdenia rostrata</i> and <i>Parsonsia straminea</i>. 	0.497848
3036	South Coast Warm Temperate-Subtropical Rainforest	<ul style="list-style-type: none"> Tall to very tall dense rainforest, rarely with extremely tall sclerophyll emergents or canopy, which occurs most extensively in the Illawarra area between Royal National Park and Nowra, with disjunct and more restricted occurrences in the Clyde Mountain area near Batemans Bay and at Mount Dromedary Occurs mainly in mild, wet to moderately wet locations receiving 990–1780 mm mean annual rainfall, at mid elevations of 70–420 m Key tree species: <i>Doryphora sassafras</i>, <i>Acmena smithii</i> and <i>Cryptocarya glaucescens</i> Key shrub and small tree species: <i>Ceratopetalum apetalum</i>, <i>Ficus coronata</i>, <i>Diospyros australis</i>, <i>Polyosma cunninghamii</i>, <i>Pennantia cunninghamii</i> and <i>Dendrocnide excelsa</i> 	0.123661

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Figure 2.4.2 Domain A – Native Ecosystems: Plant Community Types



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2.4.1.2 Domain G – Water Storage

A minor dam adjacent to Jersey Farm Road, within ML 1596, will be retained as a water storage (**Figure 2.4.1**).

This dam is located within an undisturbed area mapped as 'grazing – modified pasture' per the Australian Land Use and Management (ALUM) 2016 Classification system (**Figure 1.3.4**) and it is intended the dam will serve as an ongoing, passive water source for stock consistent with this existing land use.

As part of rehabilitation the area immediately surrounding the dam will be subject to minor re-shaping to blend with the surrounding topography and ensure safe access for stock.

2.4.1.3 Domain H – Heritage Areas

The heritage structures that will remain are listed in **Table 2.4** and **Table 2.5**, and shown in **Figure 1.3.7**.

As noted in **Section 2.3**, this is contingent on these structures being accepted by one or more third parties, including the full and complete transfer of all associated liabilities. If no third parties wish to take on the responsibility for, and ongoing management of, these structures they will be demolished, and the final land use at these locations will default to a native vegetation final use consistent with 'Domain A – Native Ecosystems' (see **Section 2.4.1.1**).

Where demolition, removal or significant modification to a heritage building or structure is required a suitably qualified archaeologist will be engaged to conduct photographic recording of the heritage item and/or archaeological excavations as required. Specific management plans detailing the program/procedures utilised will be developed in consultation with the archaeologist for these activities.



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Table 2.4 Historical Heritage Structures to be Retained

Building No.	Name	Location	Significance Level
B1	Old Fan Room	Upper pit top (ML 1596)	Primary Significance
B2	Old Offices, lamp room, bathroom, entry stairs	Upper pit top (ML 1596)	Primary Significance
B3	Carpenters Shop	Upper pit top (ML 1596)	Primary Significance
B4	Dumper house	Upper pit top (ML 1596)	Primary Significance
B5	Storage Shed – Old Workshops	Upper pit top (ML 1596)	Primary Significance
B6	Loco Charging Station	Upper pit top (ML 1596)	Primary Significance
B7	Fire Station	Unknown	Contributory Significance
B8	1960s Office	Upper pit top (ML 1596)	Contributory Significance
B9	Breaker Building and Transfer Bunker	Upper pit top (ML 1596)	Associative Significance
B10	Decline Conveyor	Unknown	Associative Significance
B11	Man Transport Shed	Lower pit top (ML 1596)	Associative Significance
B12	Diesel Shed	Upper pit top (ML 1596)	Associative Significance
B13	New Workshops	Upper pit top (ML 1596)	Associative Significance
B14	Bath House	Lower pit top (ML 1596)	Contributory Significance
B15	No 1 Man Transport Winding House	Lower pit top (ML 1596)	Primary Significance
B16	Old Powerhouse	Lower pit top (ML 1596)	Primary Significance
B17	Coal Bins and Loading-out Gantries	Lower pit top (ML 1596)	Associative Significance
B18	Wonga' Mine managers house	Lower pit top (ML 1596)	Primary Significance
F1	Mine Dam	Lower pit top (ML 1596)	Primary Significance
F2	Coke Ovens archaeological area	Lower pit top (ML 1596)	Archaeological Significance
F3	Bankbook Hill settlement area	Unknown	Archaeological Significance



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Table 2.5 Historical Mine Portals to be Retained

Portal No.	Name	Location	Significance Level
W4A	Rangers	Upper pit top (ML 1596)	Associative Significance
W5	Daylight Entry	Unknown	Associative Significance
W6A	Rubber-Tyred Vehicle Transport (RTV) Portal	Upper pit top (ML 1596)	Associative Significance
W6	Main Transport (Track) Portal	Upper pit top (ML 1596)	Associative Significance
W7	Old Prospect Tunnel (no surface evidence reconstructed 2010-11)	Upper pit top (ML 1596)	Intrusive Significance
W8	Belt conveyor Inspection Portal	Upper pit top (ML 1596)	Primary Significance
W9	Belt Conveyor Portal	Upper pit top (ML 1596)	Contributory Significance
W10	Loco Track Portal	Upper pit top (ML 1596)	Contributory Significance
W11	Old Portal	Upper pit top (ML 1596)	Contributory Significance
W11A	Old Main Rope Haulage Drift Portal	Upper pit top (ML 1596)	Primary Significance
W11B	"Wombat Hole" (access to W11A)	Upper pit top (ML 1596)	Contributory Significance
W12	Old Main Fan Portal	Upper pit top (ML 1596)	Primary Significance
W13	Old No 1 South Track Portal	Upper pit top (ML 1596)	Primary Significance
N6, N7	Forest 11 Portals	Unknown	Associative Significance
W16	New Conveyor Portal (constructed 2010-11)	Upper pit top (ML 1596)	Intrusive Significance

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2.4.1.4 Domain I – Infrastructure Areas

The only mining infrastructure to remain post-mining and rehabilitation is the main access road. This will be used for continued site access for rehabilitation monitoring and other inspections.

The access road is shown in **Figure 2.4.1**.

All other buildings and infrastructure non-contributory to the future land use will be removed.

Some minor reshaping and vegetation work will be undertaken to achieve the post-mining landform design (Part 5 and Appendix B) and post-mining land uses described in this plan.

2.4.2 Mining Domains

WWC has four (4) mining domains as summarised in **Table 2.6** and shown in **Figure 2.4.3**.

Domain codes are in accordance with the Resources Regulator Mine Rehabilitation Portal Guideline (NSW RR, 2021).

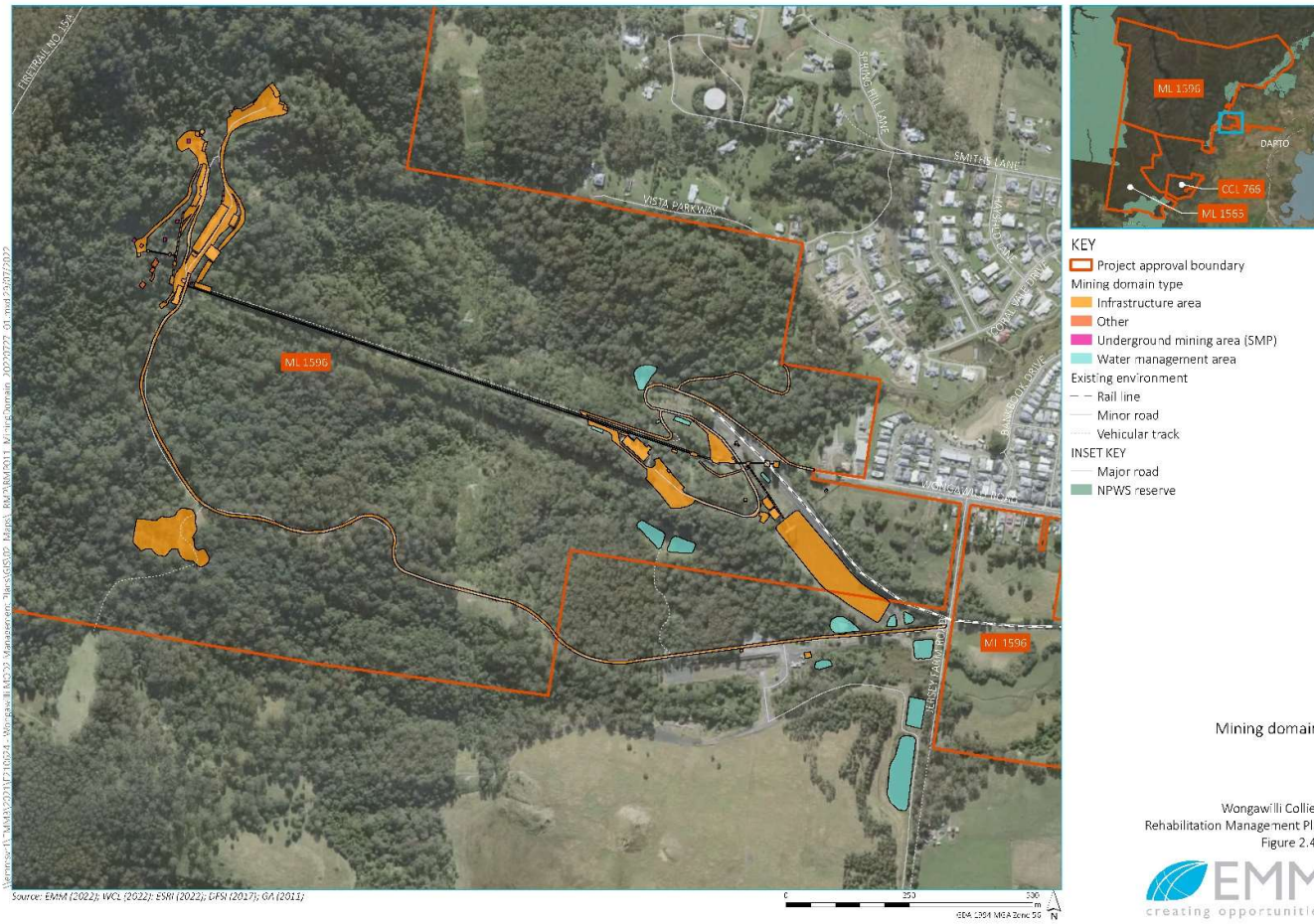
Detailed descriptions of these domains are provided in the following sub-sections.

Table 2.6 Mining Domains

Code	Domain name	Area (ha)
1	Infrastructure Area	8.632089
3	Water Management Area	1.731417
6	Underground Mining Area	0.019148
8	Other (Historical Mining Structures and Areas)	0.041614

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Figure 2.4.3 Mining Domains





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2.4.2.1 Domain 1 - Infrastructure area

The infrastructure areas include:

- pit top area (including the administrative facilities);
- bathhouse;
- underground mining infrastructure, ventilation shafts and portals;
- workshop and associated laydown storage areas; and
- other employee facilities.

Assets within the infrastructure area, as well as other domains, are listed in **Table 2.7**.

The current secondary domain for infrastructure does not allow for infrastructure to be retained. Retention of these facilities and structures will be further considered in future iterations of the RMP as part of the continued land use options assessment, within a preliminary 'Domain A – Native Ecosystems' final land-use.

Table 2.7 Asset Register

Mining Domain	Assets
Domain 1 – Infrastructure area	<ul style="list-style-type: none"> • Administration Buildings • Bath Houses • Workshop • Bulk Liquid Storage • Conveyor and Transfer House • Electrical Infrastructure • Compressor Shed • Water Tank • Portal B & C (for future western driveage) • Rail and RTV portals (current use) • Timberyard Storage Area • Garden Storage Area • Screen/Sizer • Vulcanising Shed • Coal Bins • Stockpile Area • Electrical infrastructure • Old Bath House (decommissioned) • Rail lines (from Stockpile Area to Main Line) • Contractors Yard • Car parking and paved areas • Environmental Monitoring Equipment
Domain 3 – Water management area	<ul style="list-style-type: none"> • Grey water line and ponds • Contaminated water drainage • Water tanks • Dams • Ponds • Lagoons • Settlement Ponds
Domain 6 – Underground mining areas	<ul style="list-style-type: none"> • Nebo No.3 Downcast Shaft (decommissioned) • Nebo No.4 Upcast Shaft (decommissioned) • Wongawilli Shaft (decommissioned) (Care and Maintenance) • Electrical Infrastructure
Domain 8 – Other – historical mining areas	<ul style="list-style-type: none"> • Historical heritage structures – various (refer to Table 2.4) • Historical mine portals – various (refer to Table 2.5)

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2.4.2.2 Domain 3 – Water Management Areas

The water management areas at WWC include the following:

- water storage facilities for dirty water;
- water management structures for diverting water to appropriate water zones; and
- water management structures which are utilised to assist in improving water quality, e.g. sediment dams.

These water management areas are mostly located at the Wongawilli pit top.

The current secondary domain for water management does not allow for relevant water infrastructure to be retained. Retention of these facilities and structures will be further considered in future iterations of the Rehabilitation Management Plan (RMP) as part of the continued land use options assessment, within a primarily 'Rehabilitated Land – Forest' final land-use.

2.4.2.3 Domain 6 – Underground mining areas

The rehabilitation objectives for the mining area are to return the area to a safe and stable landform. Remediation of subsidence cracking will be undertaken in accordance with the Extraction Plan or Subsidence Management Plan for the relevant underground mining area.

2.4.2.4 Domain 8 – Other (Historical Mining Structures and Areas)

For the purposes of this RMP the heritage items listed in **Section 2.4.1.3 (Table 2.4 and Table 2.5)** will be assessed for structural integrity before stakeholder consultation is undertaken to determine their potential for adaptive re-use or preservation as historical heritage.

As noted in **Section 2.3**, the retention of heritage structures is contingent on these structures being accepted by one or more third parties, including the full and complete transfer of all associated liabilities. If no third parties wish to take on the responsibility for, and ongoing management of, these structures they will be demolished, and the final land use at these locations will default to a native vegetation final use consistent with Domain A – Native Ecosystem (see **Section 2.4.1.1**).

For the duration of this RMP the WWC Heritage Management Plan (Plan No. WWC-EC-PLN-004) will be used to protect the integrity of the Heritage on the site.

3 PART 3 – REHABILITATION RISK ASSESSMENT

3.1 Rehabilitation Risk Assessment Approach

A rehabilitation risk assessment was completed in July 2022 in accordance with the principles outlined in AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines (AS/NZS ISO 31000:2009) (Standards Australia, 2009) and Clause 7 of Schedule 8A of the Mining Regulation 2016.

Rehabilitation risk has been considered with regards to risks associated with previous mining activities, and the proposed rehabilitation phases outlined in this plan, and has been developed with reference to available guidance from the NSW Resources Regulator.

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The risk assessment is maintained by WWC. Key outcomes of the risk assessment are summarised in **Section 3.2** detailing the risk, impact, risk control, and where the risk controls are described in detail in this RMP.

3.2 Key Rehabilitation Risks

Key rehabilitation risks are summarised in **Sections 3.2.1 – 3.2.4** below.

3.2.1 Contaminated Materials

3.2.1.1 Constraint

Potential contaminants and land contamination may exist at end of mining, in particular:

- surface contamination by residual carbonaceous; and
- general soil contamination associated with storage, use and handling of chemicals and hydrocarbons.

If not identified, remediation and/or removed these contaminants may pose a risk to future post-mining land uses (both human and environmental use) and in particular contaminated runoff to receiving waters in the Sydney drinking water catchment.

3.2.1.2 Management and Mitigation

A Preliminary Site Investigation (PSI) will be undertaken during the term of the RMP to identify the location, type, and extent of any contamination on site.

Where preliminary site investigation identifies existing contamination a targeted soil contamination assessment will be undertaken in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013), in particular schedules B1 (Guideline on Investigation Levels for Soil and Groundwater) and B2 (Guideline on Site Characterisation) and submission of a report covering the assessment of the site contamination including:

- scope and methodology undertaken in the investigation;
- information collected through the data collection phase;
- indication of whether contamination is present with consideration for the conceptual site model (CSM) and contaminants of potential concern (CoPCs) identified in **Section 6.8**;
- recommendations regarding further investigation or proposed clean up; and
- the risk and impacts any contamination pose to human health and the environment.

The outcomes of the assessment will be used to inform options for in-situ remediation or removal and off-site licensed disposal (in the case of chemical or hydrocarbon contamination).

If/where carbonaceous material is identified this will be excavated and disposed to underground workings.

3.2.2 Erosion

3.2.2.1 Constraint

The majority of the site is situated on relatively steep terrain. This poses a higher risk of erosion particularly where vegetation cover cannot be easily or effectively established due to:

- steep slopes;
- thin or skeletal soils, or lack of adequate soils or other growth media;
- effects of wind and/or water erosion;
- grazing and ground disturbance in rehabilitation areas from native fauna, livestock, or pest species.

If not adequately managed and mitigated with control measures appropriate to the site and climatic conditions, erosion poses a key risk to failure of the reinstated final landform and may result in rehabilitation objectives not being met.

Erosion may also impact surface receiving waters with implications to environmental processes and the quality of waters forming part of the Sydney drinking water catchment.

3.2.2.2 Management and Mitigation

An erosion hazard assessment (EHA) will be undertaken to determine the erodibility potential of site subsoil and topsoils and recommendations provided on appropriate erosion control methods to apply at key points in the rehabilitation process (e.g. landform re-establishment, revegetation).

Recommended controls will be incorporated into future revisions of this RMP as well as construction environmental management plans (CEMPs) and/or erosion and sediment control plans (ESCPs) developed for discrete ground disturbing work programs.

3.2.3 Geotechnical Stability and Subsidence

3.2.3.1 Constraint

Geotechnical stability risks may arise as a function of:

- general slope instability; and
- mine-induced subsidence.

Given prior and future mining operations are limited to underground workings surface instability risks are considered very low. Likewise, limited works will be required in terms of final landform re-establishment and no surface features will remain on site that pose a long-term geotechnical risk post-mining.

Prior assessments of mine-induced subsidence were completed based on longwall (LW) mining methodology with predicted subsidence in the order of approximately 250 mm. With a conversion to place change mining methodology, expected subsidence was predicted to less than 20 mm and considered a low risk.

Rehabilitation risks associated with mine-induced subsidence include:

- groundwater penetration through subsidence cracks, with potential impacts to groundwaters forming part of the Sydney drinking water catchment, although this has

been reported as minimal with low water levels in Nebo workings (circa 2012) regarded as low due to separation of mine from water bodies.

- impacts to surface vegetation communities and terrestrial habitat, such as tree til/fall, which has been identified but also assessed as low risk.

3.2.3.2 Management and Mitigation

No specific management and mitigation measures are required or proposed, other than ongoing subsidence inspections. Inspections will recommence 2 months prior to any mining operations commencing on all new mining operations.

No new or changed mining operations are proposed under the term of this RMP.

Longwall subsidence inspections of old workings will be undertaken during the term of this RMP to identify potential issues and inform any remediation actions, as necessary.

No specific controls are required or proposed to manage general surface/slope stability risks.

3.2.4 Weeds

3.2.4.1 Constraint

Vegetation around the site has been impacted by invasive weeds. The weed load has not been managed for some time and is now competing with native vegetation.

3.2.4.2 Management and Mitigation

During the period of this RMP an ongoing weed management program will be implemented to target invasive weeds, with emphasis on the management of species listed as state declared weeds and species identified as priority weeds by Wollongong City Council within the *South-East Regional Strategic Weed Management Plan 2017–2022* (South-East Local Land Services, 2017).

During weed management activities, further investigation will be undertaken to assess Native vegetation and where possible undertake interventions to improve the Native Vegetation.

4 PART 4 – REHABILITATION OBJECTIVES AND REHABILITATION COMPLETION CRITERIA

4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

The overall rehabilitation objective for the colliery has not changed from that proposed in the previous MOP which is to restore the land to native ecosystems, including stable landforms and self-sustaining vegetation, as well as retaining key heritage features.

The proposed rehabilitation objectives and completion criteria have been developed for each domain to ensure that they align with contemporary standards and NSW Resources Regulator expectations.



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The specific proposed rehabilitation objectives for each final land use domain, indicators for rehabilitation success, completion criteria and the validation method to be adopted in the assessment of the completion criteria detailed in **Table 4.1**.



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
A	Native Ecosystem	1	Infrastructure areas	All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials	Removal of non-heritage listed buildings, plant, conveyors pumps, generators, cabling, pipes, tanks, core racks and materials.	Infrastructure removed	Inspection reports
					Removal of all footings and slabs.	Infrastructure removed	Surveyed and marked on as-constructed final landform plan
					All drill core and coal samples have been placed underground	Core and samples removed	Inspection reports
					Surveying and sealing of all drill holes and boreholes in accordance with departmental guidelines and relevant standards.	Sealing complete	Engineering inspection report



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
				There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.	Contamination will be appropriately remediated to a condition that does not pose a threat of environmental harm or constrain the final land use.	Contamination will be appropriately remediated so that appropriate guidelines for land use are met.	Contamination Remediation Report prepared by Land Contamination Consultant Engineered capping design with specifications.
				The final landform is stable and does not present a risk of environmental harm downstream/downslope of the site or a safety risk to the public/stock/native fauna.	There is no active rill, gully or tunnel erosion are within the parameters for safe and stable landform. Discharge points from rehabilitated landforms to natural channels are stable.	The final landform has been constructed in general accordance with the approved Final Landform & Rehabilitation Plan. Presence/absence active rills, gullies and tunnels within rehabilitation monitoring transects. Soil surface cover in rehabilitation transects $\geq 60\%$.	As constructed reports as constructed report. Rehabilitation monitoring reports.



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
				The vegetation composition of the rehabilitation is recognisable as the target PCT contained within the NSW Vegetation Information System).	Native plant species are characteristic of the target plant community(s). Notes: "Characteristic of target plant community" is defined as "50% of all species in each Growth Form (ie, trees, shrubs, grasses, forbs and ferns and other) that are known and accepted to form part of the PCT/TEC against benchmark value".	Native plant species richness assessed for each Growth Form against analogue sites.	Rehabilitation monitoring reports.
				The vegetation structure of the rehabilitation is recognisable as, or is trending towards the target PCT contained within the NSW Vegetation Information System)	Cover and height range of all Growth Forms are characteristic of, or trending towards, the target plant community(s)	The cover and height range of all native vascular plant species, including: <ul style="list-style-type: none"> • Overstorey cover; • Midstory cover; • Native groundcover (grasses, shrubs, other); and • Exotic plant cover. 	Rehabilitation monitoring reports.



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Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.

Growing media status is suitable for the target plant community establishment, and indicators of nutrient cycling are suitable for sustaining the target plant community.

Plant recruitment is suitable for sustaining the target plant community.

Suitable means:

1. Trees and shrubs- evidence of flowering and seeds or second-generation juveniles. At least one individual less than 5cm DBH present per plot.
2. Short lived growth forms, including grasses, herbs and forbs - requires demonstration of persistence over time including series monitoring and monitoring of reproductive structures (e.g. buds, flowers and fruit)

LFA soil and litter criteria.
All Growth Forms are monitored for establishment and survival of juveniles/immatures.

Rehabilitation monitoring reports.
Rehabilitation monitoring reports.



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
A	Native ecosystem	6	Underground mining area	All mining equipment that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials	Removal of non-heritage listed mining equipment.	Equipment removed	Inspection reports
					Surveying and sealing of all portals and shafts in accordance with departmental guidelines and relevant standards.	Sealing complete	Engineering inspection report
				The final landform is stable and does not present a risk of environmental harm downstream/downslope of the site or a safety risk to the public/stock/native fauna.	There is no active subsidence, rill, gully or tunnel erosion, are within the parameters for safe and stable landform. Discharge points from rehabilitated landforms to natural channels are stable.	The final landform has been constructed in general accordance with the approved Final Landform & Rehabilitation Plan. Presence/absence of active subsidence, rills, gullies and tunnels within rehabilitation monitoring transects. Soil surface cover in rehabilitation transects $\geq 60\%$.	As constructed reports. Rehabilitation and Subsidence monitoring reports.



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
				Natural undermined landforms are stable and do not present a risk of environmental harm downstream/downslope of the site or a safety risk to the public/stock/native fauna.	Stability of cliffs is equivalent to non-undermined areas	Landform movement or subsidence within predicted limits	Visual observation and photo-point records (pre-, during and post-excavation)
					Watercourses of second order or above are hydraulically and geomorphically stable	<ul style="list-style-type: none"> Negligible diversion of flows or changes in the natural drainage behaviour of pools; Negligible gas releases and iron staining; and Negligible increase in water cloudiness. Negligible change in the size of swamps; Negligible change in the functioning of swamps; Negligible change to the composition of or distribution of species within swamps; and Negligible drainage of water from swamps, or redistribution of water within swamps. 	Visual inspection records and/or technical assessments



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
				There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.	Contamination will be appropriately remediated to a condition that does not pose a threat of environmental harm or constrain the final land use.	Contamination will be appropriately remediated so that appropriate guidelines for land use are met.	Contamination Remediation Report prepared by Land Contamination Consultant Engineered capping design with specifications.
				The vegetation composition of the rehabilitation is recognisable as the target (PCT contained within the NSW Vegetation Information System).	Native plant species are characteristic of the target plant community(s). Notes: "Characteristic of target plant community" is defined as "50% of all species in each Growth Form (ie, trees, shrubs, grasses, forbs and ferns and other) that are known and accepted to form part of the PCT/TEC against benchmark value".	Native plant species richness assessed for each Growth Form against analogue sites.	Rehabilitation monitoring reports.



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
				The vegetation structure of the rehabilitation is recognisable as, or is trending towards the target PCT contained within the NSW Vegetation Information System)	Cover and height range of all Growth Forms are characteristic of, or trending towards, the target plant community(s)	The cover and height range of all native vascular plant species, including: <ul style="list-style-type: none"> • Overstorey cover; • Midstory cover; • Native groundcover (grasses, shrubs, other); and • Exotic plant cover. 	Rehabilitation monitoring reports.



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Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable.

Growing media status is suitable for the target plant community establishment, and indicators of nutrient cycling are suitable for sustaining the target plant community.

Plant recruitment is suitable for sustaining the target plant community.

Suitable means:

1. Trees and shrubs- evidence of flowering and seeds or second-generation juveniles. At least one individual less than 5cm DBH present per plot.
2. Short lived growth forms, including grasses, herbs and forbs - requires demonstration of persistence over time including series monitoring and monitoring of reproductive structures (e.g. buds, flowers and fruit)

LFA soil and litter criteria.
All Growth Forms are monitored for establishment and survival of juveniles/immatures.

Rehabilitation monitoring reports.
Rehabilitation monitoring reports.



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
G	Water storage 3		Water management areas	Water storages to remain are suitable for the intended post mine land use.	Necessary licences/agreements are in place for Mine Dam.	Licences and agreements issued.	Copy of relevant licence and agreement.
					The structural integrity of Mine Dam is suitable and safe for use as part of the intended final land use.	The structural integrity of Humphries Creek Dam has been inspected by a suitably qualified engineer and determined to be safe for the intended final land use (to an engineering standard).	Engineering report.
					Heritage obligations as required under the <i>Heritage Act 1977</i> , etc have been met (e.g., archival recording, dam retention and protection).	Permits and approval documents issued; archival reports (where required) complete and submitted.	Copy of any relevant approval documentation.
			Water quality is suitable for the post mining land use.	Water quality in all storages left on site (other than final voids) is suitable for the approved final land use.	Assessment of water quality against guidelines for the recreational use.	Independent report, water quality monitoring reports.	



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
				The final landform is stable and does not present a risk of environmental harm downstream/downslope of the site or a safety risk to the public/stock/native fauna.	There is no active rill, gully or tunnel erosion are within the parameters for safe and stable landform. Discharge points from rehabilitated landforms to natural channels are stable.	Presence/absence active rills, gullies and tunnels within the dam wall	As constructed reports as constructed report. Rehabilitation monitoring reports.
H	Heritage areas	8	Other (Historical Mining Structures and Areas)	No rehabilitation of historic mining features is proposed If heritage structures are to be retained, these will be protected in accordance with the WWC HMP If heritage structures will not be retained, they will be demolished, and ground rehabilitated as per Domain A – Native Ecosystems.	Heritage will be managed in accordance with WWC HMP. If heritage structures are demolished, completion criteria as per 'Domain A – Native Ecosystems' will apply.	Heritage items are maintained as per requirements of WWC HMP. If heritage structures are demolished, performance indices as per 'Domain A – Native Ecosystems' will apply.	Ongoing annual reporting. If heritage structures are demolished, justification and validation methods as per 'Domain A – Native Ecosystems' will apply.



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Table 4.1 Rehabilitation Objectives and Rehabilitation Completion Criteria

Final land use domain code	Final land use domain	Mining domain code	Mining domain	Rehabilitation objectives	Completion criteria	Performance indices	Justification and validation methods
I	Infrastructure	1	Infrastructure areas	Infrastructure to remain are suitable for the intended post mine land use. There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm.	Access tracks that are to remain are in a trafficable condition that is suitable for their intended purposes. Contamination will be appropriately remediated to a condition that does not pose a threat of environmental harm or constrain the final land use	Any required maintenance complete.	Inspection reports. Contamination Remediation Report prepared by Land Contamination Consultant.

4.2 Stakeholder Consultation

Written correspondence was provided to relevant regulatory authorities and stakeholders in June 2022 regarding a staged development of this RMP, to be undertaken as follows:

- Stage 1 – Preparation of an 'Interim RMP' (**this document**) based on existing conceptual rehabilitation end land uses, objectives, and schedule per the current Mining Operations Plan (MOP) for lodgement in accordance with and to satisfy:
 - Condition 28 of the consolidated consent conditions for PA 09_0161 (Modification 2); and
 - statutory requirements per the NSW rehabilitation regulatory reforms, per the Mining Amendment (Standard Conditions of Mining Leases—Rehabilitation) Regulation 2021.
- Stage 2 – Preparation and submission of a 'Detailed RMP' including final land use options assessments, rehabilitation planning stakeholder engagement, and rehabilitation schedule and relevant mine closure technical studies.

This correspondence was provided to:

- Wollongong, City Council;
- DPE Water;
- DPE BCS;
- MEG – Mining Exploration;
- WaterNSW; and
- CCC.

Commitments relevant to development of the 'Detailed RMP' are included within this 'Interim RMP' as part of the forward rehabilitation scheduling component (**Section 6.1**).

Further consultation will be undertaken with relevant agencies during the development of the Detailed RMP.

5 PART 5 – FINAL LANDFORM AND REHABILITATION PLAN

5.1 Final Landform and Rehabilitation Plan – Electronic Copy

Please refer to **Appendix B** for:

- Plan 1: Final landform features Appendix B.1
- Plan 2: Final landform contours Appendix B.2

6 PART 6 – REHABILITATION IMPLEMENTATION

6.1 Life of Mine Rehabilitation Schedule

No detailed rehabilitation schedule is provided on the basis that, during the term of this RMP:

- the mine will remain in care and maintenance; and
- no mining or processing operations will be undertaken.

The rehabilitation activities to be completed during the term of this RMP, described in **Section 6.2**, are limited to weed management, general site clean-up activities, and completion of relevant studies to address rehabilitation knowledge gaps.

6.2 Phases of Rehabilitation and General Methodologies

Rehabilitation phases during the term of this RMP will focus on consolidation of information surrounding the decommissioning and rehabilitation of the site.

Studies will be undertaken to address rehabilitation knowledge gaps and inform the next revision of the RMP. These include but are not necessarily limited to:

- survey and mapping of PCTs to inform target PCTs, and revegetation species mix information, for areas to be rehabilitated as Domain A – Native Ecosystems; and
- survey and assessment of subsoil and topsoil availability and suitability for rehabilitation re-use (rehabilitation material balance).

Other activities may include:

- implementation an ongoing maintenance of remnant vegetation to reduce weed load and targeted improvement of native vegetation communities focusing on buffer areas to Endangered Ecological Communities (EECs);
- identification and clean-up of the site to remove general mining waste and recoverable resources such as metal and redundant equipment;
- identification of redundant water and electrical infrastructure and removal where possible; and
- identifying buffer areas around the boundary where infrastructure no longer required can be removed to allow re-vegetation trials to be commenced.

6.3 Active Mining Phase

Active mining ceased in 2017 and the site is currently in care and maintenance. The site will remain in care and maintenance for the term of this RMP.

Detailed rehabilitation planning will commence during the period of this RMP and will include

- identification of contaminated sites and where possible removal and decontamination of the area;
- identification of carbonaceous materials, where possible clean up and removal to appropriate waste handling facilities;

- stakeholder engagement to determine the fate of historical heritage items on site and production of appropriate documentation, such as scope of works for preservation or demolition and decontamination; and
- subsidence rehabilitation in accordance with the approved extraction management plan (if required).

6.3.1 Decommissioning

6.3.1.1 Site Security

The site remains in care and maintenance with site activities during normal business hours.

Site security infrastructure has been maintained, and will remain, until infrastructure decommissioning and rehabilitated has been completed and the site declared safe for public access. At that time the site will be handed over to the relevant stakeholder(s).

6.3.1.2 Infrastructure to be Removed or Demolished

This RMP assumes all infrastructure related to mining activities will be removed at completion of the mining activities.

Progressive rehabilitation will focus on the following activities during the term of this RMP:

- identification of all redundant infrastructure and scoping of works required for removal;
- identification of infrastructure that may be retained to:
 - support the post-mining land uses, e.g. water management infrastructure; and/or
 - satisfy statutory requirements for the preservation of historical heritage.

As noted in **Section 2.3**, the retention of heritage structures is contingent on these structures being accepted by one or more third parties, including the full and complete transfer of all associated liabilities. If no third parties wish to take on the responsibility for, and ongoing management of, these structures they will be demolished.

The retention of other infrastructure is also contingency on agreements being in place for the transfer to other parties post-mining.

6.3.1.3 Building, Structures, and Fixed Plant to be Retained

This RMP assumes all buildings, structures and plant will be removed at completion of mining activities unless agreed with relevant stakeholders.

6.3.1.4 Management of Carbonaceous/Contaminated Material

Carbonaceous will be removed and placed in underground workings prior to sealing.

The only confirmed contamination location within this area has been identified at an archaeological site (the old coking beds) located at the Lower Pit Top.

Contamination resulting from environmental incidents (e.g. spills) and areas of high risk associated with hydrocarbon storage infrastructure will be maintained and appropriately managed (e.g.

remediated or disposed off-site by an authorised waste contractor) as soon as possible after they occur.

Monthly environmental inspections will continue to be undertaken by site personnel throughout the RMP term to identify any potential contamination prior to mine closure works.

A detailed contaminated land assessment will be undertaken during the decommissioning phase of operations, combined with the development of a remediation action plan, prior to rehabilitation works at the end of mine life.

6.3.1.5 Hazardous Materials Management

6.3.1.5.1 Wongawilli Colliery Pit Top

WWC maintains a register of Material Safety Data Sheets (MSDS) for all chemicals used on-site. The Safety and Training Department oversees the register system and hard copy MSDS's are kept in the control office. A database system known as 'Chem Watch' is used to provide the most current versions of documents and records are available for inspection on request.

All dangerous goods are stored in accordance with the WorkCover NSW Notification of Dangerous Goods requirements.

Other hazardous materials located at WWC include compressed gases, flammable and combustible liquids, poisonous substances and corrosive substances, none of which exceed the acceptable holding limits.

6.3.1.5.2 Avondale Pit Top and Other Approved Mining Areas (excluding Pit Top Activities)

Hazardous materials located in these areas comprise very minor quantities of diesel (200L), cleaning chemicals (20L) and herbicide (20L). Diesel and cleaning chemicals are stored inside the ventilation shaft buildings in an appropriately bunded area. The herbicide is used to keep vegetation within the compound to a manageable level to reduce fire risk (see **Section 3.1.1.20**).

6.3.1.6 Underground Infrastructure

Infrastructure will be recovered where possible. Redundant equipment will be abandoned in underground workings prior to sealing.

6.3.2 Landform Establishment

The post-mining landform will be subject to minor re-shaping to remove safety bunds and items inhibiting surface flows or areas where fill have been pushed and present a risk to rehabilitation or slope stability.

Areas where infrastructure was previously installed and subjected to ground disturbance due to decommissioning activities will be graded to blend into the natural surface and rehabilitated by appropriate techniques.

Once re-shaping works are completed subsoils and topsoils will be reinstated, subject to material availability and quality. Where a shortfall of existing subsoils and topsoils is identified and/or are deemed unsuitable for rehabilitation due to hostile chemical properties or excessive weed load, alternate growth media options will be identified and trialled (**Section 6.3.3**).

An assessment of subsoil and topsoil availability and suitability for rehabilitation works will be undertaken during the term of this RMP, to inform detailed rehabilitation planning.

6.3.3 Growth Medium Development

Soils will be assessed prior to rehabilitation to determine their availability and suitability for rehabilitation.

Where a shortfall of existing subsoils and topsoils is identified and/or are deemed unsuitable for rehabilitation due to hostile chemical properties or excessive weed load, alternate growth media options will be identified and trialled.

Should soils display any potential growth constraints that may limit native vegetation establishment, growth medium trial plots will be established prior to decommissioning activities.

For areas disturbed during decommissioning a straw-based HGM (EnviroStraw EnviroMatrix plus™ or equivalent) will be used as the growth medium as well as to provide erosion protection from raindrop splash and overland flow as they have been tested to provide critical shears 40.1 Pascals (Pa).

These products have been used successfully and cost effectively to establish native vegetation communities of NSW coastal acidic soils and on mines and other constrained sites throughout eastern Australia (pers. comm. Michael Frankcombe and Wayne Walshe).

The application rates given in **Table 6.1** will be adopted where the use of alternate growth media is required.

Table 6.1 Straw-based HGM Application Rates

Landform	Rates	Binder
Rehabilitated areas less than 2:1	6,000 kg/ha	400 L/ha (EnviroBond or equivalent)
Rehabilitated areas Greater than 2:1	10,000 kg/ha	500 L /ha (EnviroBond or equivalent)
Reprofiled road/track embankments	6,000 kg/ha	400 L/ha (EnviroBond or equivalent)

6.3.4 Ecosystem and Land Use Establishment

As discussed in **Section 2.4.1** (final land use domains) most of the site will be rehabilitated to native ecosystems consistent with the PCTs that existed prior to mining.

The species to be used in revegetation (e.g. grasses, plants, shrubs and trees) will be determined once these PCTs have been surveyed and mapped relative to disturbance areas earmarked for rehabilitation to 'Domain A – Native Ecosystems'.

6.3.5 Ecosystem and Land Use Development

Rehabilitation monitoring will be undertaken using analogue sites and Landscape Function Analysis (LFA) to assess rehabilitation progress and success as detailed in this RMP. Annual Rehabilitation Reports will be prepared, and a summary of these reports will be included in the Annual Reviews.

Data obtained from the analogue sites provides a range of values from replicated examples of similar vegetation communities. Rehabilitation areas are compared to reference sites that best

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represent the final land use, vegetation community and management conditions they will be subjected to.

This approach allows the recognition of the dynamic nature of ecosystems therefore rehabilitation sites are monitored simultaneously to the reference sites over time to account for changes in:

- seasonal variations;
- climatic conditions;
- management practices; and
- unexpected disturbance events such bushfire.

To demonstrate rehabilitate success or progress toward rehabilitation success, specific indicators have been developed to equal values obtained from the reference site under the same set of conditions or demonstrate a positive trend towards target values.

Rehabilitation monitoring identifies areas requiring maintenance and identify and address deviations from the expected outcomes. Rehabilitated areas are assessed against performance indicators (refer **Table 4.1**) and regularly inspected (at least on an annual basis) for the following aspects:

- evidence of any erosion or sedimentation;
- success of initial establishment cover;
- natural regeneration of improved pasture;
- weed infestation (primarily noxious weeds, but also where rehabilitation areas are dominated by other weeds);
- integrity of diversion drains, waterways and sediment control structures; and
- general stability of the rehabilitation areas.

Where rehabilitation criteria have not been met, maintenance works will be undertaken in accordance with the Trigger, Action, Response Plan (TARP) provided as **Table 10.1**.

6.4 Rehabilitation of Areas Affected by Subsidence

The rehabilitation objectives for the mining area are to return the area to a safe and stable landform. Remediation of subsidence cracking will be undertaken in accordance with the Extraction Plan or Subsidence Management Plan for the relevant underground mining area.

These key rehabilitation objectives, per Table 4.1, include:

- establishment of a final landform consistent with the surrounding environment;
- vegetation selection based on pre-mining (or adjacent) PCTs;
- re-instated watercourses (if applicable) are hydraulically and geomorphologically stable; and
- no additional risk to public safety exists compared to prior to mining.

Publicly accessible subsidence impacts are remediated in accordance with WaterNSW/ DRG / DPE approved remediation methods.

7 PART 7 – REHABILITATION QUALITY ASSURANCE PROCESS

WWC will develop rehabilitation specifications for all stages of rehabilitation implementation. This will include technical requirements, inspection and testing requirements and hold and witness points. This will ensure that each stage of rehabilitation is completed to the agreed design and then next step/phase cannot proceed until there is formal signoff that the rehabilitation has been implemented to the required standard.

At this stage WWC does not have internal rehabilitation resources and this responsibility has been outsourced to a consultant Environmental Site Representative (ESR), and where required, external contractors.

8 PART 8 – REHABILITATION MONITORING PROGRAM

To provide an opportunity to assess the progression of rehabilitation completed at WWC, a rehabilitation monitoring program has been developed and is outlined in **Sections 8.1 – 8.3**, below. The rehabilitation monitoring program will commence two years prior to the cessation of mining activities focusing on the analogue sites to establish suitable baseline. Monitoring of analogue sites will be undertaken biannually (twice a year) in summer and winter).

8.1 Analogue Site Baseline Monitoring

LFA is one of three components of the Ecological Function Analysis (EFA) tool developed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) that aims to measure the progression of revegetation/rehabilitation towards a self-sustaining ecosystem.

LFA indices are used to demonstrate that an area is on a trajectory towards a self-sustaining landscape, that is, that the landscape contains processes operating to maintain the biogeochemical 'engine-room' of a landscape (Tongway and Hindley, 2004). The EFA methodology is described in detail in *Landscape Function Analysis: Procedures for Monitoring and Assessing Landscapes with Special Reference to Minesites and Rangelands, Version 3.1* (Tongway and Hindley, 2004).

In accordance with the LFA methodology, the LFA monitoring results will be used to assess whether rehabilitation areas are on a trajectory towards a self-sustaining landscape.

8.1.1 Soil Analyses

Soil samples will be taken using a core sampler within a monitoring quadrat at each rehabilitation monitoring site and sent to a National Association of Testing Authorities (NATA) or Australasian Soil and Plant Analysis Council (ASPAC) accredited laboratory for analysis.

Soil samples are analysed for the following parameters: pH, electrical conductivity, available calcium, magnesium, potassium, ammonia, sulphur, organic matter, exchangeable sodium, calcium, magnesium, potassium, hydrogen, aluminium, cation exchange capacity, available and extractable phosphorus, micronutrients (zinc, manganese, iron, copper, boron) and total carbon and nitrogen. Exchangeable sodium percentages are also calculated as a measure of sodicity or dispersion.

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8.1.2 Ecological Assessment

In addition to LFA, various biodiversity components are assessed to monitor the successional phases/changes of plant development and to identify the requirements for ameliorative measures and guide adaptive management. The rapid ecological assessment provides quantitative data that measures changes in:

- floristic diversity including species area curves and growth forms (using full floristic sampling);
- ground cover diversity and abundance;
- vegetation structure and habitat characteristics (including ground cover, cryptogams, logs, rocks, litter, projected foliage cover at various height increments);
- understorey density and growth (including established shrubs, direct seeding and tree regeneration);
- overstorey characteristics including tree density, health and survival; and
- other habitat attributes such as the presence of hollows, mistletoe and the production of buds, flowers and fruit.
- Permanent transects and photo-points will be established to record changes in these attributes over time.

These ecological assessment components will be described in detail in annual rehabilitation monitoring reports.

The monitoring methodology described above may be revised (in consultation with relevant regulatory authorities) should an alternative method be required to adequately assess rehabilitation performance.

8.1.3 Monitoring Quadrats

The monitoring methodology components described will be undertaken within 20 m x 50 m monitoring quadrats established at each rehabilitation monitoring site and analogue site. An LFA transect will be established along the 20 m downslope boundary of the quadrat. Vegetation monitoring be undertaken within 1 m x 1 m sub-quadrats at 5 m intervals along the 50 m transect which runs perpendicular to the LFA transect.

The transect and quadrat boundary points will be marked with pegs (and flagging tape) and global positioning system details recorded at each peg to ensure the location of the quadrat and transects is consistent over time.

Permanent photo points will be established at the monitoring quadrats to monitor the changes that occur over time. The methodology for photographic monitoring is consistent with the NSW National Parks and Wildlife Service (2003) *Conservation Management Note 9 – Photographic Monitoring of Vegetation*. Photos are taken annually during spring and during a similar time of day (for consistence of light conditions).

After each photographic monitoring event, the photographs are compared to the photographs from the previous monitoring periods. The following elements will be noted:

- plant establishment;
- the status of weeds;

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- natural regeneration of species; and
- presence of habitat features (e.g. logs, litter, rocks).

A review of aerial photography may also be used to show enhancement of vegetation connectivity.

8.2 Rehabilitation Establishment Monitoring

Following completion of the rehabilitation campaign it is expected that the rehabilitation specialist would inspect the works (approximately monthly and following major climatic events such as rain or drought) until such a time it is considered that annual formal rehabilitation monitoring inspections would be adequate and that the results of the rehabilitation monitoring would be indicative if more inspections or maintenance works are required.

8.3 Measuring Performance Against Rehabilitation Objectives and Rehabilitation Completion Criteria

Rehabilitation completion criteria detailed in **Table 4.1** are used as the basis for assessing when rehabilitation of the project is complete.

The adopted rehabilitation criteria for the site have been developed with the current knowledge of rehabilitation practices and success in similar project environments. They consist of a set of objectives; rehabilitation criteria and evidence that criteria have been met using LFA.

Whether rehabilitation criteria have been met depends on the trending of measurements over time compared with analogue site conditions.

Rehabilitation monitoring is expected to identify upper and lower range of criteria values based on monitoring data collected across selected analogue sites. It is important to note that these upper and lower criteria values are expected to be dynamic and will change each year based on the monitoring results from the analogue sites. This will be undertaken to reflect the seasonal and climatic conditions at the time of monitoring.

9 PART 9 – REHABILITATION RESEARCH, MODELLING AND TRIALS

9.1 Current Rehabilitation Research, Modelling and Trials

No rehabilitation research, modelling, or trials are currently being undertaken on site.

9.2 Future Rehabilitation Research, Modelling and Trials

Soil analysis will be undertaken into the suitability of soils on site to determine potential constraints to vegetation establishments. Rehabilitation trials for disturbed areas will be developed during this RMP period.

Weed management trials will be undertaken to determine the most suitable weed suppression methods to appropriate to the targeted species.



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10 PART 10 – INTERVENTION AND ADAPTIVE MANAGEMENT

A rehabilitation Trigger Action Response Plan (TARP) has been developed for the site to respond to potential threats to the success of rehabilitation outcomes of the target PCTs applicable to native rehabilitation (Domain A areas), detailed in **Table 10.1**.



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Table 10.1 Rehabilitation Trigger Action Response Plan

Threats to rehabilitation success	Potential source of threat	Trigger	Action/Response	How impact will be monitored	Notification protocol
Final land use domain - Infrastructure					
Abandonment of site infrastructure.	Unable to transfer responsibility for core shed and site buildings.	Final landowner not identified due to risk associated with the site. (heritage)	Update RMP and RCE calculation to include the removal of all site buildings and development rehabilitation plan for administration area.	Prior to closure of the site.	Submission of revised RMP and RCE calculation.
Land contamination	Contaminated land remains	Audit of site contamination indicates contaminated land is present. Audit details remedial recommendations.	Remedial recommendations are implemented. Site re-audit to ensure contamination removed.	Remediation verification report.	Notification to the EPA and Resources Regulator may be required if gross contamination or environmental harm has occurred.
Final landforms not in accordance with RMP	Erosion/instability	As constructed surveys, rehabilitation monitoring.	<ul style="list-style-type: none"> Engage an independent specialist to determine if non-conforming landform can still achieve RMP objectives: <ul style="list-style-type: none"> – erosion stability; – geotechnical stability; – surface and ground water quality; – target PCT's; and – implement recommendations if rework is required. 	Remediation verification report	Notification to the EPA and Resources Regulator may be required if gross contamination or environmental harm has occurred.
Roadways and access tracks eroding	Erosion/sediment transport	Regular site inspections	<ul style="list-style-type: none"> Engage independent specialist to undertake remedial works to 	Visual erosion inspection and report	Not applicable



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Table 10.1 Rehabilitation Trigger Action Response Plan

Threats to rehabilitation success	Potential source of threat	Trigger	Action/Response	How impact will be monitored	Notification protocol
Revegetation is not successfully established	Native vegetation cover not viable or weed competition	Rehabilitation monitoring and inspections.	Test soil and ameliorate as required. Test seed viability and collect/purchase fresh seed if required. Reseed area. Undertake Weed management	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.
	Designated vegetation community does not establish on final landform.	Monitoring of revegetation indicates that the program has partially failed or failed.	Contract a suitably qualified revegetation expert to review vegetation establishment on the problem areas to identify reasons for the additional management required and make recommendations regarding appropriate rehabilitation actions to ensure that revegetation is successful. Implement recommendations.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.
	Vegetation community requires significant maintenance input and is not sustainable.	Monitoring of the rehabilitated areas indicates that they are unlikely to reach a sustainable ecosystem comparable to the analogue sites.	Contract a suitably qualified revegetation expert to review vegetation establishment on the problem areas to identify reasons for the failures observed and make recommendations regarding appropriate rehabilitation actions to ensure that rehabilitation successfully corresponds to the analogue sites. Implement recommendations.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.
Weed invasion and/or dominance by exotic grass species.	Weed invasion and/or dominance by exotic grass species.	Rehabilitation LFA monitoring exceeding exotic species indices.	Undertake weed control and reseed as required.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.



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Table 10.1 Rehabilitation Trigger Action Response Plan

Threats to rehabilitation success	Potential source of threat	Trigger	Action/Response	How impact will be monitored	Notification protocol
Final land use domain – Native Ecosystems (various)					
Final landform slopes	Slopes are steeper than proposed in RMP.	As constructed reports.	Engage an independent specialist to determine in non-conforming landform can still achieve RMP objectives: <ul style="list-style-type: none"> • erosion stability; • geotechnical stability; • target PCT; and • implement recommendations if rework is required. 	Annual rehabilitation monitoring.	Depending on severity: <ul style="list-style-type: none"> • incident report; and • revision of RMP.
Erosion of rehabilitated area	Excessive rainfall during establishment period or in areas where vegetation not providing sufficient cover.	Rehabilitation monitoring and inspections.	Backfill any eroded areas using material available on site. Reapply ameliorated topsoil /HGM and re-seed. If erosion is due to flow exceeding the critical shear of the revegetated surface, provide additional erosion protection as required e.g. rock soil matrix, rock lining, coir mesh etc.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.
Revegetation is not successfully established	Native vegetation cover not viable or prolonged dry periods such as germination not established.	Rehabilitation monitoring and inspections.	Test soil and ameliorate as required. Test seed viability and collect/purchase fresh seed if required. Re-seed area.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.



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Table 10.1 Rehabilitation Trigger Action Response Plan

Threats to rehabilitation success	Potential source of threat	Trigger	Action/Response	How impact will be monitored	Notification protocol
	Species mix on rehabilitation areas does not conform to designated vegetation community.	Monitoring of revegetation indicates that the species mix is not consistent with the analogue land use sites.	Contract a suitably qualified ecologist to review revegetation species abundance and diversity in relation to that of the analogue sites and make recommendations regarding strategies to adjust the community composition to that within the range represented by the analogue sites.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.
	Designated vegetation community does not establish on final landform.	Monitoring of revegetation indicates that the program has partially failed or failed.	Contract a suitably qualified revegetation expert to review vegetation establishment on the problem areas to identify reasons for the additional management required and make recommendations regarding appropriate rehabilitation actions to ensure that revegetation is successful. Implement recommendations.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.
	Vegetation community requires significant maintenance input and is not sustainable.	Monitoring of the rehabilitated areas indicates that they are unlikely to reach a sustainable ecosystem comparable to the analogue sites.	Contract a suitably qualified revegetation expert to review vegetation establishment on the problem areas to identify reasons for the failures observed and make recommendations regarding appropriate rehabilitation actions to ensure that rehabilitation successfully corresponds to the analogue sites. Implement recommendations.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.



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Table 10.1 Rehabilitation Trigger Action Response Plan

Threats to rehabilitation success	Potential source of threat	Trigger	Action/Response	How impact will be monitored	Notification protocol
Weed invasion and/or dominance by exotic grass species	Weed invasion and/or dominance by exotic species.	Rehabilitation LFA monitoring exceeding exotic species indices.	Undertake weed control and reseed as required.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.
Animal Impacts	Fauna damage to establishing vegetation.	Rehabilitation inspections and monitoring.	Temporary fencing until vegetation can withstand fauna impacts.	Rehabilitation monitoring and inspections.	Annual review. Annual rehabilitation report.

11 PART 11 – REVIEW, REVISION, AND IMPLEMENTATION

This RMP will be reviewed and where necessary updated, in accordance with the requirements of Schedule 6 Condition 4 of PA 09_0161.

Specifically, this RMP will be reviewed within three months of:

- the submission of an annual review;
- the submission of an incident report;
- the submission of an audit report; and
- any modification to the conditions of the consent (unless the conditions require otherwise).

Where the review leads to revisions to this RMP, then within four weeks of the review, the revised RMP will be submitted to the Secretary for approval.

In addition, this management plan will be reviewed and if necessary updated as a result of:

- changes to any relevant regulatory or statutory requirements; or
- any significant change to rehabilitation management practices.

12 CONTROL AND REVISION HISTORY

PROPERTY	VALUE
Approved by	Environmental Superintendent
Document Owner	Tom McMahon
Effective Date	1 August 2022

Revisions

VERSION	DATE REVIEWED	REVIEW TEAM (CONSULTATION)	NATURE OF THE AMENDMENT
1	1/8/2022	Tom McMahon_WCL, EMM Consulting	Initial management plan required as part of Project Approval PA 09_0161 (MOD 2).
2			
3			



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REFERENCES

South-East Local Land Services (2017) South-East Regional Strategic Weed Management Plan 2017 – 2022. Stage Government of NSW, June 2017.

NSW Resource Regulator (2021), Form and Way: Rehabilitation management plan for large mines, Revision 1, 2 July 2021. State of New South Wales.

NSW Resource Regulator (2021a), Form and way: Rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan for large mines, Revision 1, 2 July 2021. State of New South Wales.

Tongway DJ and Hindley NL (2004) Landscape Function Analysis Manual: Procedures for Monitoring and Assessing Landscapes with Special Reference to Minesites and Rangelands, CSIRO Sustainable Ecosystems, Canberra.

NPWS (2003), Conservation Management Note 9 – Photographic Monitoring of Vegetation. NSW National Parks and Wildlife Service.



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APPENDIX A



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Appendix A1 – Development Consent PA 09_0161

Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning and Infrastructure, the Planning Assessment Commission of New South Wales (the Commission) approves the project application referred to in Schedule 1, subject to the conditions in Schedules 2 to 6.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Member of the Commission

Member of the Commission

SIGNED 2 NOVEMBER 2011
Sydney

2011

SCHEDULE 1

Application Number:

09_0161

Applicant:

Wollongong Coal Limited

Consent Authority:

Minister for Planning and Infrastructure

Land:

See Appendix 1

Development:

NRE Wongawilli Colliery – Nebo Area Project

The Department has prepared a consolidated version of the consent which is intended to include all modifications to the original determination instrument.

The consolidated version of the consent has been prepared by the Department with all due care. This consolidated version is intended to aid the consent holder by combining all consents relating to the original determination instrument but it does not relieve a consent holder of its obligation to be aware of and fully comply with all consent obligations as they are set out in the legal instruments, including the original determination instrument and all subsequent modification instruments.

CONSOLIDATED CONSENT

SUMMARY OF MODIFICATIONS

Application Number	Determination Date	Decider	Modification Description
MP09_0161-Mod-1	27 November 2015	Planning Assessment Commission	Extension of time
MP09_0161-Mod-2	13 April 2022	Executive Director Energy, Resources and Industry Assessments	Modification of North West Mains Development and extension of time

FOR INFORMATION

CONSOLIDATED CONSENT

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CONSOLIDATED CONSENT

DEFINITIONS

Adaptive management	Adaptive management includes monitoring subsidence effects and impacts and, based on the results, modifying the mining plan as mining proceeds to ensure that the effects, impacts and/or associated environmental consequences remain within predicted and/or designated ranges and in compliance with the conditions of this consent
Annual Review	The review required by condition 3 of schedule 6
Applicant	Wollongong Coal Limited (formerly Gujarat NRE FCGL Pty Ltd) , or any person carrying out any development under this consent
Approved mine plan	The mine plans depicted in the figures in Appendix 2
BCA	Building Code of Australia
BC Act	Biodiversity Conservation Act 2016
BCS	Biodiversity Conservation and Science Directorate within the Department
Built features	Includes any building or work erected or constructed on land, and includes dwellings and infrastructure such as any formed road, street, path, walk, or driveway; any pipeline, water, sewer, telephone, gas or other service main
CCC	Community Consultative Committee
Cliffs	Continuous rock face, including overhangs, having a minimum height of 10 metres and a minimum slope of 2 to 1, ie having a minimum angle to the horizontal of 63°
Conditions of this consent	Conditions contained in schedules 2 to 6 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
Council	Wollongong City Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development as described in the EA
DPE Water	The Water Group within the Department
EA	Environmental assessment titled NRE Wongawilli Colliery Nebo Area Environmental Assessment, Volumes 1-2 , dated October 2010, including the associated response to submissions
Environmental consequences	The environmental consequences of subsidence impacts, including: damage to infrastructure, buildings and residential dwellings; loss of surface flows to the subsurface; loss of standing pools; adverse water quality impacts; development of iron bacterial mats; cliff falls; rock falls; damage to Aboriginal heritage sites; impacts on aquatic ecology; and ponding
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPA	Environment Protection Authority
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build or to implement
First workings	Development of main headings, roadways , cut throughs and the like, provided that such workings are long-term stable and do not generate more than 20 mm of vertical subsidence at the surface
Heritage NSW	Heritage NSW, Department of Premier and Cabinet
Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this consent
Land	In general, the definition of land is consistent with the definition in the EP&A Act. However, in relation to the noise and air quality conditions in schedule 4 it means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this consent
Material harm to the environment	Harm to the environment is material if it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
MEG	Department of Regional NSW – Mining, Exploration and Geoscience
Mining operations	The carrying out of mining, including first workings, processing, stockpiling and transportation of coal on the site and the associated removal, storage and/or emplacement of vegetation, topsoil, overburden and reject material
Minor	Small in quantity, size and degree given the relative context
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring

CONSOLIDATED CONSENT

Modification 1	Modification Application 09_0161 MOD 1, accompanying letter report from Wollongong Coal Limited dated 9 June 2015, including the associated response to submissions
Modification 2	Modification Report titled <i>Wongawilli Colliery Modification Report</i> dated December 2020 as modified by the Submissions Report titled <i>Wongawilli Colliery Modification 2 – North West Mains Development Submissions Report</i> dated September 2021 and additional information responses dated September 2021, November 2021, December 2021 and January 2022
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
NRAR	NSW Natural Resources Access Regulator
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency, or a mining company (or its subsidiary)
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Reasonable costs	The costs agreed between the Department and the Applicant for obtaining independent experts to review the adequacy of any aspects of the extraction plan, or where such costs cannot be agreed, the costs determined by a dispute resolution process
Rehabilitation	The treatment or management of land disturbed by the development for the purpose of establishing a safe, stable and non-polluting environment
Remediation	Activities associated with partially or fully repairing or rehabilitating the impacts of the development or controlling the environmental consequences of this impact
ROM coal	Run-of-mine coal
RR	Department of Regional NSW – Resources Regulator
SA NSW	Subsidence Advisory NSW
Safe, serviceable & repairable	Safe means no danger to users who are present, serviceable means available for its intended use, and repairable means damaged components can be repaired economically
Second workings	Extraction of coal from longwall panels, mini-wall panels or pillar extraction
Secretary	Planning Secretary of the Department, or nominee
Site	The land referred to in schedule 1, and listed in Appendix 1
Statement of commitments	The Applicant's commitments in Appendix 3
Steep slopes	An area of land having a gradient between 1 in 3 (33% or 18.3°) and 2 in 1 (200% or 63.4°)
Subsidence	The totality of subsidence effects, subsidence impacts and environmental consequences of subsidence impacts
Subsidence effects	Deformation of the ground mass due to mining, including all mining-induced ground movements, such as vertical and horizontal displacement, tilt, strain and curvature
Subsidence impacts	Physical changes to the ground and its surface caused by subsidence effects, including tensile and shear cracking of the rock mass, localised buckling of strata caused by valley closure and upsidence and surface depressions or troughs
Surface facilities sites	The Wongawilli and Avondale pit top areas; all ventilation shaft sites; sites used for gas drainage or for other mining purposes infrastructure; and any other site subject to existing or proposed surface disturbance associated with the development
TFNSW	Transport for NSW
WaterNSW	The State Water Corporation of NSW

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SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance measures and criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.

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2. The Applicant must carry out the development:
 - (a) generally in accordance with the EA, Modification 1 and Modification 2;
 - (b) in accordance with the development layout and the Statement of Commitments; and
 - (c) in accordance with the conditions of this consent.

Notes:

- The development layout is shown in Appendix 2.
- The statement of commitments is reproduced in Appendix 3.
- The Department notes that approval of the Western Driveage component of the development does not indicate or imply any approval of future mining in the Western Area (as defined in the EA), which will be subject to a separate planning process and full merit assessment.

3. If there is any inconsistency between the above documents, the more recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.
4. The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
 - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent;
 - (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this consent; and
 - (c) the implementation of any actions or measures contained in these documents.

LIMITS ON CONSENT

Mining Operations

5. Mining operations for the development may take place until 30 June 2027.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of either the Secretary or the RR. Consequently this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

- 5A. Underground mining operations may only be carried out within the boundaries of the area covered by the approved mine plan shown in Appendix 2.
- 5B. The Applicant must limit the coal extraction method utilised for the development to first workings only and must not undertake second workings.

Coal Production & Transport

6. The Applicant must:
 - (a) not transport coal from the site by road (except in an emergency situation and with the prior approval of the Secretary in consultation with Council);
 - (b) restrict coal processing and transport from the site to a maximum of 486,000 tonnes of ROM coal over the remaining life of this consent; and
 - (c) restrict train movements to/from the site to a maximum of (except with the prior approval of the Secretary) 4 train movements (maximum weekly rolling average) a day.

Note: For the purposes of this condition each train entering and exiting the site is classified as 2 train movements; a day refers to the 24 hours from midnight to midnight the next day.

Hours of Operation

7. The Applicant must restrict the following activities to between the hours of 7am to 6pm Monday to Friday and 8am to 4pm Saturday, unless the Secretary agrees otherwise:

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- (a) operation of the lower pit top, including the operation of plant or equipment, the conveyance of coal from the upper pit top to lower pit top, loading/unloading to/from the coal stockpile and coal storage bins and train loading;
- (b) train movements on the Wongawilli rail spur; and
- (c) construction and demolition.

Note: Underground mining operations, and other surface facilities operation may be undertaken at any time.

SURRENDER OF CONSENTS AND APPROVALS

8. Within 6 months of this consent, or as otherwise agreed by the Secretary, the Applicant must surrender all existing development consents and project approvals for mining operations relied on by the Applicant for the site (other than this consent) in accordance with Sections 75YA and 104A of the EP&A Act.

Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.

9. Prior to the surrender of these consents and/or approvals, the conditions of this consent (including any notes) shall prevail to the extent of any inconsistency with the conditions of these consents and/or approvals.

STRUCTURAL ADEQUACY

10. The Applicant must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structure, that are part of the development are constructed in accordance with:
 - (a) the relevant requirements of the BCA; and
 - (b) any additional requirements of the SA NSW where the building or structure is located on land within declared Mine Subsidence Districts.

Notes:

- Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.
- ~~deleted.~~
- Under the Coal Mine Subsidence Compensation Act 2017, the Applicant is required to obtain SA NSW's approval before constructing any improvements within a Mine Subsidence District.

DEMOLITION

11. The Applicant must ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.

OPERATION OF PLANT AND EQUIPMENT

12. The Applicant must ensure that all plant and equipment used at the site is:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

12A. The Applicant must not operate a crusher, sizer or screen at the surface within the surface facilities sites.

STAGED SUBMISSION OF STRATEGIES, PLANS OR PROGRAMS

13. With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis.

Note: The conditions of this consent require certain strategies, plans, and programs to be prepared for the development. They also require these documents to be reviewed and audited on a regular basis to ensure they remain effective. However, in some instances, it will not be necessary or practicable to prepare these documents for the whole development at any one time; particularly as these documents are intended to be dynamic and improved over time. Consequently, the documents may be prepared and implemented on a progressive basis. In doing this however, the Applicant will need to demonstrate that it has suitable documents in place to manage the existing operations of the development.

PROTECTION OF PUBLIC INFRASTRUCTURE

14. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:
 - (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
 - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

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Note: This condition does not apply to any damage to public infrastructure subject to compensation payable under the Coal Mine Subsidence Compensation Act 2017, or to damage to roads caused as a result of general road usage.

RELOCATION OF SURFACE INFRASTRUCTURE

15. Within nine months of the date of approval of Modification 2, or as otherwise agreed by the Secretary, the Applicant must relocate the existing crusher, sizer and screen underground, as described in Modification 2, or remove this infrastructure from the site.
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FOR INFORMATION

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SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS – UNDERGROUND MINING

SUBSIDENCE

Performance Measures

- The Applicant must ensure that the development does not cause any exceedances of the performance measures in Table 1, to the satisfaction of the Secretary.

Table 1: Subsidence Impact Performance Measures

Water Resources	
Catchment yield to the Upper Cordeaux Reservoirs (No. 1 and No. 2) and Avon Reservoir	Negligible reduction to the quality or quantity of water resources reaching the reservoirs No connective cracking between the surface and the mine
Upper Cordeaux Reservoirs (No. 1 and No. 2) and Avon Reservoir	Negligible leakage from the reservoirs Negligible reduction in the water quality of reservoirs
Watercourses	
Wattle Creek, Little Wattle Tree Creek, Cordeaux River, Gallaghers Creek	Negligible environmental consequences, including: <ul style="list-style-type: none"> negligible diversion of flows or changes in the natural drainage behaviour of pools; negligible gas releases and iron staining; and negligible increase in water cloudiness
Other watercourses	No greater subsidence impact or environmental consequences than predicted in the EA
Upland Swamps (No 22 and No 39)	Negligible environmental consequences including: <ul style="list-style-type: none"> negligible change in the size of swamps; negligible change in the functioning of swamps; negligible change to the composition or distribution of species within swamps; and negligible drainage of water from swamps, or redistribution of water within swamps
Land	
Illawarra Escarpment State Conservation Area, Metropolitan Special Area	Negligible environmental consequences.
Cliffs	Negligible environmental consequences (that is occasional rockfalls, displacement or dislodgement of boulders or slabs, or fracturing, that in total do not impact more than 0.5% of the total face area of such cliffs within the longwall mining area)
Biodiversity	
Threatened species, threatened populations, or endangered ecological communities	Negligible environmental consequences
Heritage Features	
Aboriginal heritage sites	Negligible impact or environmental consequence
Non-Aboriginal heritage sites (including 'Historic 1', 'Historic 2' and 'Historic 3')	Negligible loss of heritage value

Notes to Table 1:

- The Applicant will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this consent.
 - Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the Secretary will be the final arbiter.
 - In the case of the Illawarra Escarpment State Conservation Area, the Secretary's satisfaction can only be expressed following consultation with BCS.
 - In the case of the Metropolitan Special Area, the Secretary's satisfaction can only be expressed following consultation with WaterNSW.
 - The requirements of this condition only apply to the impacts and consequences of mining operations, construction or demolition undertaken following the date of this consent.
- The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the performance measures in Table 1. Any exceedance of these performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A

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Regulation, notwithstanding actions taken pursuant to paragraphs (a)-(c) or condition 3 below. Where any exceedance of these performance measures has occurred, the **Applicant** must, at the earliest opportunity:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement remediation measures as directed by the **Secretary**, to the satisfaction of the **Secretary**.

Offsets

3. If the **Applicant** exceeds the performance measures in Table 1 and the **Secretary** determines that:
 - (a) it is not reasonable or feasible to remediate the impact or environmental consequence; or
 - (b) remediation measures implemented by the **Applicant** have failed to satisfactorily remediate the impact or environmental consequence;
 then the **Applicant must** provide a suitable offset to compensate for the impact or environmental consequence, to the satisfaction of the **Secretary**.

Note: Any offset required under this condition must be proportionate with the significance of the impact or environmental consequence.

4. The **Applicant must** ensure that the **development** does not cause any exceedances of the performance measures in Table 2, to the satisfaction of the **Secretary**.

Table 2: Subsidence Impact Performance Measures

Built Features	
Key public infrastructure: including WaterNSW infrastructure (Avon Dam, Upper Cordeaux No.1 and No.2 dams, water supply pipelines), high pressure gas pipelines, electricity transmission lines, fibre optic networks	Always safe and serviceable. Damage that does not affect safety or serviceability must be fully repairable, and must be fully repaired.
Gas distribution pipelines, electricity distribution lines, roads, fire trails, other public infrastructure, other built features	Always safe. Serviceability should be maintained wherever practicable. Loss of serviceability must be fully compensated. Damage must be fully repairable, and must be fully repaired or else replaced or fully compensated.
Public Safety	
Public safety	No additional risk

Notes to Table 2:

- The **Applicant** will be required to define more detailed performance indicators (including impact assessment criteria) for each of these performance measures in the various management plans that are required under this **consent**.
 - Measurement and/or monitoring of compliance with performance measures and performance indicators is to be undertaken using generally accepted methods that are appropriate to the environment and circumstances in which the feature or characteristic is located. These methods are to be fully described in the relevant management plans. In the event of a dispute over the appropriateness of proposed methods, the **Secretary** will be the final arbiter.
 - The requirements of this condition only apply to the impacts and consequences of mining operations undertaken following the date of this **consent**.
 - Any breach of this condition is taken to be a breach of this **consent**, and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.
 - Requirements regarding safety or serviceability do not prevent preventative or mitigatory actions being taken prior to or during mining in order to achieve or maintain these outcomes.
5. Any dispute between the **Applicant** and the owner of any built feature over the interpretation, application or implementation of the performance measures in Table 2 is to be settled by the **Secretary**, following consultation with **SA NSW** and the **RR**. Any decision by the **Secretary** shall be final and not subject to further dispute resolution under this **consent**.

First Workings

6. The Applicant may carry out first workings on site, other than in accordance with an approved Extraction Plan or Subsidence Monitoring Program, provided that RR is satisfied that the first workings are designed to remain long-term stable and non-subsiding, except insofar as they may be impacted by approved second workings.

Note: The intent of this condition is not to require an additional approval for first workings, but to ensure that first workings are built to geotechnical and engineering standards sufficient to ensure long term stability, with zero resulting subsidence impacts.

Dam Safety Management Plan

- 6A. The Applicant must prepare a Dam Safety Management Plan for the development. The plan must:
- be prepared by a suitably qualified and experienced person/s;
 - be prepared in consultation with Dam Safety NSW, RR and WaterNSW;
 - be submitted to the Secretary prior to mining operations progressing to within 150 metres of Lake Avon;
 - describe the subsidence monitoring program proposed for mining operations within 150 metres of Lake Avon;
 - describe the risk control measures proposed to identify and manage potential zones of elevated hydraulic conductivity and measure to prevent potential inflows from Lake Avon into the first workings;
 - describe the water monitoring program designed to identify potential inflows from Lake Avon into the first workings;
 - include suitable Trigger Action Response Plans, which contain:
 - appropriate triggers to warn of increased risks of mining-related impacts to Lake Avon;
 - specific actions to respond to increasing risk; and
 - adaptive management measures where monitoring indicates the potential for unacceptable mining-related impacts to Lake Avon, and
 - include a contingency plan to prevent or halt inrush.

Subsidence Monitoring Program

- 6B. The Applicant must prepare and implement a Subsidence Monitoring Program. The program must:
- be prepared by a suitably qualified and experienced person who appointment has been endorsed by the Secretary;
 - be approved by the Secretary prior to the recommencement of mining operations under Modification 2;
 - be prepared in consultation with the Resources Regulator, Dam Safety NSW and Water NSW;
 - describe the ongoing conventional and non-conventional subsidence monitoring program, which must:
 - provide for the collection of sufficient baseline data;
 - provide data to assist with the management of the risks associated with subsidence; and
 - validate the subsidence predictions;
 - ensure that mining does not cause greater than 20mm vertical subsidence at the ground surface;
 - include suitable Trigger Action Response Plans, which contain:
 - all features in Tables 1 and 2 and appropriate triggers to warn of increased risk of exceedance of any performance measure;
 - specific actions to respond to increasing risk; and
 - adaptive management measures where monitoring indicates the potential for unacceptable mining-related impacts;
 - include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Table 1 and Table 2, or where any such exceedance appears likely.

Extraction Plan

7. The Applicant must prepare and implement an Extraction Plan for any second workings on site, to the satisfaction of the Secretary. The plan must:
- be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
 - be approved by the Secretary before the Applicant carries out any of the second workings covered by the plan;
 - include detailed plans of existing and proposed first and second workings and any associated surface development;
 - provide revised predictions of the conventional and non-conventional subsidence effects, subsidence impacts and environmental consequences of the proposed second workings, incorporating any relevant information obtained since this consent;
 - include detailed performance indicators for each of the performance measures in Tables 1 and 2;

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- (f) describe the measures that would be implemented to:
- ensure compliance with the performance measures in Tables 1 and 2; and
 - manage or remediate subsidence impacts and/or environmental consequences;
- (g) include a contingency plan that expressly provides for adaptive management where monitoring indicates that there has been an exceedance of any performance measure in Tables 1 and 2, or where any such exceedance appears likely;
- (h) include the following to the satisfaction of **RR**:
- a subsidence monitoring program to:
 - provide data to assist with the management of the risks associated with subsidence;
 - validate the subsidence predictions;
 - monitor the integrity of the overlying strata, particularly the Cordeaux Crinanite; and
 - analyse the relationship between the predicted and resulting subsidence effects and predicted and resulting impacts under the plan and any ensuing environmental consequences; and
 - inform the contingency plan and adaptive management process;
 - a coal resource recovery plan that demonstrates effective recovery of the available resource;
 - a Built Features Management Plan, which has been prepared in consultation with the owners of such features, to manage the potential impacts and consequences of subsidence on any built features;
 - a Public Safety Management Plan to ensure public safety in the mining area; and
 - appropriate revisions to the Rehabilitation Management Plan required under condition 26 of schedule 4; and
- (i) include a:
- Water Management Plan, which has been prepared in consultation with **EPA**, **WaterNSW** and **DPE Water**, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on watercourses and aquifers, including:
 - surface and groundwater impact assessment criteria based on at least 2 years of baseline data, including trigger levels for investigating any potentially adverse impacts on water resources or water quality;
 - a program to monitor and report groundwater inflows to underground workings; and
 - a program to predict, manage and monitor impacts on any groundwater bores on privately-owned land;
 - Biodiversity Management Plan, which has been prepared in consultation with **BCS** and **MEG**, which provides for the management of the potential impacts and/or environmental consequences of the proposed second workings on aquatic and terrestrial flora and fauna, with a specific focus on threatened species, populations and their habitats; endangered ecological communities, and water dependent ecosystems;
 - Land Management Plan, which has been prepared in consultation with any affected public authorities, to manage the potential impacts and/or environmental consequences of the proposed second workings on land in general, with a specific focus on cliffs and steep slopes; and
 - Heritage Management Plan, to manage the potential environmental consequences of the proposed second workings on both Aboriginal and non-Aboriginal heritage sites or values; and
- (j) include a program to collect sufficient baseline data for future Extraction Plans.

*Note: An SMP that is substantially consistent with this condition and which is approved by **MEG** prior to 31 December 2011 is taken to satisfy the requirements of this condition.*

8. The **Applicant must** ensure that the management plans required under condition 7(i) above include:
- (a) an assessment of the potential environmental consequences of the Extraction Plan, incorporating any relevant information that has been obtained since this **consent**; and
- (b) a detailed description of the measures that would be implemented to remediate predicted impacts.

Payment of Reasonable Costs

9. The **Applicant must** pay all reasonable costs incurred by the Department to engage suitably qualified, experienced and independent experts to review the adequacy of any aspect of an Extraction Plan or **Subsidence Monitoring Program**.
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SCHEDULE 4 SPECIFIC ENVIRONMENTAL CONDITIONS – GENERAL

NOISE

Noise Criteria

- The Applicant must ensure that the noise generated by the development (including train loading and shunting within the yard but excluding train movements on the Wongawilli rail spur) does not exceed the criteria in Table 3 and Table 4 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 3: Noise Criteria dB(A) – Intrusive Noise Limits – Existing Residences

Location	Day	Evening	Night
	LAeq (15 min)	LAeq (15 min)	LAeq (15 min)
R2	41	38	38
R9	41	35	35
R20	47	39	39
R55	40	35	35
R57	40	35	35
R58	40	35	35

Table 4: Noise Criteria dB(A) – Amenity Noise Limits – All Residences

Receiver Area	Day	Evening	Night
	LAeq (11 hour)	LAeq (4 hour)	LAeq (9 hour)
All privately-owned land	60	50	45

Notes to Tables 3 and 4:

- To interpret the locations referred to in Table 3, see Appendix 4.
- Noise generated by the development is to be measured in accordance with the relevant requirements, and exemptions (including certain meteorological conditions), of the NSW Noise Policy for Industry.

However, these noise criteria do not apply if the Applicant has an agreement with the relevant owner/s of the residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

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Rail Noise

- The Applicant must ensure that the noise generated by railway activities on the Wongawilli rail spur outside of the yard limits (excluding any train shunting or when loading is taking place) does not exceed the criteria in Table 6 at any existing residence on privately-owned land.

Table 6: Noise Criteria dB(A) – Rail Noise Limits – Existing residences

Receiver Area	Day	Evening	Night
	LAeq (period)	LAeq (period)	LAeq (period)
All existing residential receivers	60	50	45

Note: Noise generated by the railway activities is to be measured in accordance with the relevant requirements, and exemptions of the Rail Infrastructure Noise Guideline (EPA 2013).

However, these noise criteria do not apply if the Applicant has an agreement with the relevant owner/s of the residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

- By the end of July 2013, or other timing as may be agreed by the Secretary, the Applicant must use its best endeavours to ensure that its rail spur is only accessed by:
 - locomotives that are approved to operate on the NSW rail network in accordance with noise limits L6.1 to L6.4 in RailCorp's EPL (No. 12208); and
 - trains comprising no less than 30 wagons.
- The Applicant must restrict train speeds on the Wongawilli rail spur to a maximum of 20 km/h.

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Operating Conditions

6. The Applicant must:
- take all reasonable steps to minimise the construction, operational and rail noise associated with the development, including low frequency noise and other audible characteristics;
 - implement reasonable and feasible noise attenuation measures on all plant and equipment that will operate in noise sensitive areas, and monitors and reports on these measures;
 - monitor and record all major equipment use and make this data readily available at the request of the Department or the EPA;
 - minimise the noise impacts of the development during all meteorological conditions in order to satisfy the noise criteria in Table 3;
 - operate a comprehensive noise management system that uses a combination of meteorological forecasts, predictive noise modelling and real-time monitoring to guide the day to day planning of mining operations and the implementation of adaptive management both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;
 - carry out attended noise monitoring (quarterly or as otherwise agreed with the Secretary) to determine whether the development is complying with the relevant conditions of consent; and
 - regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of this consent.

Noise Audit

7. The Applicant must prepare and implement a Noise Audit for the development to the satisfaction of the Secretary. The audit must:
- be prepared by a suitably qualified and experienced expert, whose appointment has been approved by the Secretary;
 - be prepared in consultation with EPA, and be submitted to the Secretary for approval by the end of June 2013;
 - undertake improved background noise monitoring;
 - investigate and evaluate:
 - all reasonable and feasible measures to mitigate operational noise levels to comply with the noise goals in Table 5; and
 - all reasonable and feasible measures to mitigate rail noise associated with the development (eg locomotive use, use of longer trains and 3-pack wagons, track works);
 - review the feasibility of reducing the maximum train movements, particularly at night (see condition 6 of schedule 2), based on the minimum train length required under condition 4 above; and
 - include an action plan to implement the audit recommendations and a protocol for monitoring the effectiveness of these measures.

Noise Mitigation

- 7A. Within nine months of the date of approval of Modification 2, or as otherwise agreed by the Secretary, the Applicant must complete the installation, construction or procurement of all reasonable and feasible noise mitigation measures identified in the EA, including:
- augmentation of rail load-out facilities;
 - noise suppression kits for, or procurement of new, dozer and front-end loader; and
 - extension of the existing rail noise barrier as shown in Appendix 2.

Noise Management Plan

8. The Applicant must prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with EPA and Council, and submitted to the Secretary for approval within 6 months of this consent;
 - describe the noise mitigation measures that would be implemented to ensure compliance with the relevant conditions of this consent;
 - include a protocol for continual improvement of noise performance, and reporting progress in meeting the noise goals in Table 5;
 - include a protocol for notifying residents of advertised campaigns (see condition 6 of schedule 2); and
 - include a noise monitoring program that:
 - uses a combination of attended and unattended monitoring to evaluate the performance of the development; and
 - includes a protocol for determining exceedances of the relevant conditions of this consent.

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AIR QUALITY & GREENHOUSE GAS

Odour

9. The **Applicant must** ensure that no offensive odours are emitted from the site, as defined under the POEO Act, unless otherwise authorised by an EPL.

Greenhouse Gas Emissions

10. The **Applicant must** implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the **Secretary**.

Note: This condition does not extend to Scope 3 emissions, as defined in the National Greenhouse Energy Reporting Guidelines.

Air Quality Criteria

11. The **Applicant must** implement all reasonable and feasible mitigation measures to ensure that the particulate emissions generated by the **development** do not exceed the criteria listed in Tables 7, 8 and 9 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.

Table 7: Long term criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 25 µg/m ³

Table 8: Short term criterion for particulate matter

Pollutant	Averaging period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³

Table 9: Long term criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes to Tables 7-9:

^a Total impact (ie incremental increase in concentrations due to the **development** plus background concentrations due to other sources);

^b Incremental impact (ie incremental increase in concentrations due to the **development** on its own);

^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air – Determination of Particulate Matter – Deposited Matter – Gravimetric Method; and

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agree to by the **Secretary** in consultation with **EPA**.

Air Quality Acquisition Criteria

12. If the particulate matter emissions generated by the **development** exceed the criteria in Tables 10, 11, and 12 on a systematic basis at any residence on privately-owned land, or on more than 25 percent of any privately owned land, then upon receiving a written request for acquisition from the landowner the **Applicant must** acquire the land in accordance with the procedures in conditions 4-5 of schedule 5.

Table 10: Long term acquisition criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 25 µg/m ³

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Table 11: Short term acquisition criteria for particulate matter

Pollutant	Averaging period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 150 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³

Table 12: Long term acquisition criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes to Tables 10-12:

^a Total impact (ie incremental increase in concentrations due to the [development](#) plus background concentrations due to other sources);

^b Incremental impact (ie incremental increase in concentrations due to the [development](#) on its own);

^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air – Determination of Particulate Matter – Deposited Matter – Gravimetric Method; and

^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agree to by the [Secretary](#) in consultation with [EPA](#).

Operating Conditions

13. The [Applicant must](#):
- implement best practice air quality management, including all reasonable and feasible measures to minimise off-site odour, fume and dust emissions generated by the [development](#), including from any spontaneous combustion on site,
 - minimise any visible air pollution generated by the [development](#); and
 - regularly assess the real-time air quality monitoring and meteorological forecasting data, and relocate, modify and/or suspend operations to ensure compliance with the relevant conditions of this [consent](#); to the satisfaction of the [Secretary](#).

Air Quality & Greenhouse Gas Management Plan

14. The [Applicant must](#) prepare and implement a detailed Air Quality & Greenhouse Gas Management Plan for the [development](#) to the satisfaction of the [Secretary](#). This plan must:
- be prepared in consultation with [BCS](#) and [EPA](#), and submitted to the [Secretary](#) for approval within 6 months of this [consent](#);
 - describe the measures that would be implemented to ensure compliance with the relevant conditions of this [consent](#), including a real-time air quality management system that employs both reactive and proactive mitigation measures;
 - describe the measures that would be implemented to:
 - ensure best practice management of greenhouse gas emissions is being employed at the site in respect of minimising greenhouse gas emissions and improve energy efficiency;
 - reduce or offset greenhouse gas emissions by four per cent per year from 2022 to 2027; and
 - monitor and report on the development's Scope 1 and Scope 2 greenhouse gas emissions.
 - include an air quality monitoring program that:
 - uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the [development](#); and
 - includes a protocol for determining exceedances with the relevant conditions of this [consent](#).

METEOROLOGICAL MONITORING

15. During the life of the [development](#), the [Applicant must](#) ensure that there is a suitable meteorological station operating in the vicinity of the site that:
- complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
 - is capable of continuous real-time measurement of temperature lapse rate in accordance with the *NSW Noise Policy for Industry*, or as otherwise approved by [EPA](#).

SOIL & WATER

Water Licences

16. The [Applicant must](#) ensure that it has sufficient water for all stages of the [development](#), and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the [Secretary](#).

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Note: The Applicant is required to obtain all necessary water licences and approvals for the development under the Water Act 1912 and/or Water Management Act 2000.

Baseflow Offsets

17. The Applicant must offset the loss of any baseflow to watercourses caused by the development to the satisfaction of the Secretary. This condition does not apply if the Secretary subsequently determines that the loss of baseflow is negligible.

Note: Offsets for long-term losses should be provided via the retirement of adequate water entitlements to account for the loss attributable to the development.

Compensatory Water Supply

18. The Applicant must provide a compensatory water supply to any landowner of privately-owned land whose water entitlements are adversely impacted (other than an impact that is negligible) as a result of the development, in consultation with DPE Water, and to the satisfaction of the Secretary.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the development. Equivalent water supply must be provided (at least on an interim basis) within 24 hours of the loss being identified.

If the Applicant and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant must provide alternative compensation to the satisfaction of the Secretary.

Surface Water Discharges

19. The Applicant must ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the development in any EPL.

Water Management Plan

20. The Applicant must prepare and implement a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared by a suitably qualified and experienced person/s;
 - be prepared in consultation with DPE Water, EPA, WaterNSW, Dams Safety NSW and Council;
 - be approved by the Secretary prior to the recommencement of mining operations following approval of Modification 2;
 - describe the measures to be implemented to ensure compliance with the water resources and watercourses performance measures in Table 1;
 - include a:
 - Site Water Balance** that includes details of:
 - predicted annual inflows to and outflows from the site;
 - sources and security of water supply for the life of the development;
 - water storage capacity;
 - water use and management on the site, including any water transfers or sharing with other industries;
 - licensed discharge points and limits; and
 - reporting procedures, including the annual preparation of an updated site water balance;
 - Salt Balance** that includes details of:
 - sources of saline material on the site;
 - saline material and saline water management on the site;
 - measures to minimise discharge of saline water from the site; and
 - reporting procedures, including the annual preparation of an updated salt balance;
 - Erosion and Sediment Control Plan** that:
 - is consistent with the requirements of *Managing Urban Stormwater: Soils and Construction - Volume 1: Blue Book* (Landcom, 2004) and *Volume 2E: Mines and Quarries* (DECC, 2008);
 - identifies activities that could cause soil erosion, generate sediment or affect flooding;
 - includes a program to review the adequacy of flood protection works, and ensure they comply with the relevant performance measures listed in Table 1;
 - describes measures to minimise soil erosion and the potential for the transport of sediment to downstream waters, and manage flood risk;

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- describes the location, function, and capacity of erosion and sediment control structures and flood management structures; and
 - describes what measures would be implemented to maintain (and if necessary decommission) the structures over time;
- iv. **Surface Water Management Plan** that:
- is consistent with the *Guidelines for Controlled Activities on Waterfront Land* (NRAR, 2018);
 - includes detailed baseline data on surface water flows and quality of watercourses and/or water bodies potentially impacted by the development, including:
 - stream and riparian vegetation health;
 - channel stability (geomorphology); and
 - water supply for other surface water users;
 - includes a detailed description of the surface water management system;
 - includes detailed plans, design objectives and performance criteria for water management infrastructure, including:
 - water run-off diversions and catch drains;
 - water storages and sediment dams; and
 - reinstated drainage networks on rehabilitated areas of the site;
 - includes detailed performance criteria, including trigger levels for identifying and investigating any potentially adverse impacts (or trends) associated with the development, for:
 - downstream surface water flows and quality;
 - channel stability;
 - downstream flooding impacts;
 - stream and riparian vegetation health;
 - water supply for other water users; and
 - post-mining water pollution from rehabilitated areas of the site;
 - includes a program to monitor and evaluate:
 - compliance with the relevant performance measures listed in Table 1 and the performance criteria in this plan;
 - controlled and uncontrolled discharges and seepage/leachate from the site;
 - surface water inflows, outflows and storage volumes, to inform the Site Water Balance; and
 - the effectiveness of the surface water management system and the measures in the Erosion and Sediment Control Plan;
 - includes reporting procedures for the results of the monitoring program, including notifying other water users of any elevated results; and
 - includes a trigger action response plan to respond to any exceedances of the performance measures or performance criteria, and repair, mitigate and/or offset any adverse surface water impacts of the development;
- v. **Groundwater Management Plan** that includes:
- detailed baseline data of groundwater levels, yield and quality for groundwater resources potentially impacted by the development;
 - a detailed description of the groundwater management system;
 - groundwater performance criteria, including trigger levels for identifying and investigating any potentially adverse groundwater impacts associated with the development, on:
 - regional and local aquifers (alluvial and hardrock);
 - groundwater supply for other water users such as licensed privately-owned groundwater bores; and
 - groundwater dependent ecosystems and swamps;
 - a program for confirming zones of elevated hydraulic conductivity and preventing potential inflows from Lake Avon into the first workings;
 - a program designed to satisfy Before After Control Impact (BACI) principles to monitor and evaluate:
 - compliance with the relevant performance measures listed in Table 1 and the performance criteria in this plan;
 - the hydrology of swamps in the vicinity of the approved mine plan, and include a minimum of 12 months of baseline monitoring prior to undermining any swamp;
 - water loss/seepage from water storages into the groundwater system;
 - groundwater inflows, outflows and storage volumes, to inform the Site Water Balance;
 - the hydrogeological setting of any nearby alluvial aquifers and the likelihood of any indirect impacts from the development;
 - the effectiveness of the groundwater management system;

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- reporting procedures for the results of the monitoring program, including notifying other water users of any elevated results;
 - a trigger action response plan to respond to any exceedances of the groundwater performance criteria, and repair, mitigate and/or offset any adverse groundwater impacts of the development; and
 - a program to periodically validate the groundwater model for the development, including an independent review of the model every 3 years, and a comparison of monitoring results with modelled predictions; and
- vi. a protocol to report on the measures, monitoring results and performance criteria identified above in the Annual Review referred to in Schedule 6 condition 3.

20A. The Applicant must implement the Water Management Plan as approved by the Secretary.

HERITAGE

Historic Heritage Management Plan

21. The Applicant must prepare and implement a Historic Heritage Management Plan, in respect of all non-Aboriginal cultural heritage items, for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with Heritage NSW and Council and be submitted to the Secretary for approval within 6 months of the date of approval of Modification 2, or as otherwise agreed with the Secretary;
 - (b) *deleted*
 - (c) include the following for managing historic heritage on site:
 - a conservation management plan for the Wongawilli Colliery, that balances heritage management with the operational, safety, and rehabilitation requirements of the mine; and
 - a program/procedures for:
 - photographic and archival recording of potentially affected heritage items;
 - protection and monitoring of heritage items outside the development disturbance area; and
 - additional archaeological excavation and/or recording of any significant heritage items requiring demolition.

21A. The Applicant must implement the Historic Heritage Management plan as approved by the Secretary.

Aboriginal Cultural Heritage Management Plan

- 21B. The Applicant must prepare an Aboriginal Cultural Heritage Management Plan for the development. The plan must:
- (a) be prepared by suitably qualified and experienced persons;
 - (b) be prepared in consultation with Heritage NSW and Registered Aboriginal Parties;
 - (c) be submitted to the Secretary for approval within six months of the date of approval of Modification 2;
 - (d) include the outcome of Aboriginal community consultation that meets the requirements of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010);
 - (e) describe the measures to be implemented on the site to:
 - (i) comply with the heritage-related operating conditions of this consent;
 - (ii) ensure all workers receive suitable Aboriginal cultural heritage inductions prior to carrying out any activities which may cause impacts to Aboriginal objects or Aboriginal places, and that suitable records are kept of these inductions;
 - (iii) monitor identified Aboriginal objects and Aboriginal places within the development disturbance area;
 - (iv) manage the discovery of suspected human remains and any new Aboriginal objects or Aboriginal places, including provisions for burials, over the life of the development;
 - (v) maintain and manage reasonable access for relevant Aboriginal stakeholders to Aboriginal objects and Aboriginal places; and
 - (vi) facilitate ongoing consultation and involvement of Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site.

21C. The Applicant must implement the Aboriginal Cultural Heritage Management Plan approved by the Secretary.

TRANSPORT

Monitoring of Coal Transport

22. The Applicant must:

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- (a) keep accurate records of the:
 - amount of coal transported from the site (on a monthly basis);
 - date and time of each train movement to and from the site; and
- (b) make these records publicly available on its website at the end of each calendar year.

VISUAL

Visual Amenity and Lighting

23. The Applicant must:
 - (a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;
 - (b) ensure no unshielded outdoor lights shine above the horizontal; and
 - (c) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Secretary.

WASTE

24. The Applicant must:
 - (a) minimise and monitor the waste generated by the development;
 - (b) ensure that the waste generated by the development is appropriately stored, handled and disposed of;
 - (c) manage on-site sewage treatment and disposal in accordance with the requirements of Council; and
 - (d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.

BUSHFIRE

25. The Applicant must:
 - (a) ensure that the development is suitably equipped to respond to fires on site; and
 - (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the vicinity of the site.

REHABILITATION

Rehabilitation Objectives

26. The Applicant must rehabilitate the site in accordance with the conditions imposed on the mining lease(s) associated with the development under the *Mining Act 1992*. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the documents listed in condition 2(a) of Schedule 2, and comply with the objectives in Table 13.

Table 13: Rehabilitation Objectives

Feature	Objective
Mine site (as a whole)	Safe, stable & non-polluting.
Surface infrastructure	Final land use compatible with surrounding land uses. To be decommissioned and removed, unless the RR agrees otherwise
Portals and vent shafts	To be decommissioned and made safe and stable.
Watercourses of 2 nd order or above subject to subsidence impacts	Retain habitat for threatened species (eg bats), where practicable Hydraulically and geomorphologically stable
Cliffs	No additional risk to public safety compared to prior to mining
Other land affected by the development	Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems comprised of: <ul style="list-style-type: none"> • local native plant species (unless the RR agrees otherwise); and • a landform consistent with the surrounding environment
Built features damaged by mining operations	Repair to pre-mining condition or equivalent unless: <ul style="list-style-type: none"> • the owner agrees otherwise; or • the damage is fully restored, repaired or compensated under the <i>Mine Subsidence Compensation Act 1961</i>.

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Feature	Objective
Community	Ensure public safety. Minimise the adverse socio-economic effects associated with mine closure

Notes to Table 13:

- These rehabilitation objectives apply to all subsidence impacts and environmental consequences caused by mining taking place after the date of this consent; and to all development surface infrastructure part of the development, whether constructed prior to or following the date of this consent.
- Rehabilitation of subsidence impacts and environmental consequences caused by mining which took place prior to the date of this consent may be subject to the requirements of other approvals (eg under a mining lease or an Subsidence Management Plan approval) or the Applicant's commitments.

Progressive Rehabilitation

27. The Applicant must carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.

Rehabilitation Management Plan

28. The Applicant must prepare and implement a Rehabilitation Management Plan for the development in accordance with the conditions imposed on the mining lease(s) associated with the development under the Mining Act 1992. This plan must:
- be prepared in consultation with the Department, BCS, MEG, DPE Water, WaterNSW, Council and the CCC;
 - be prepared in accordance with any relevant RR guideline, and be consistent with the rehabilitation objectives in the documents listed in condition 2(a) of Schedule 2 and in Table 13;
 - build, to the maximum extent practicable, on the other management plans required under this consent; and
 - address all aspects of rehabilitation and mine closure, including final land use assessment, rehabilitation objectives, domain objectives, completion criteria and rehabilitation monitoring.

Notes:

- The Rehabilitation Management Plan should address all land impacted by the development, whether prior to or following the date of this consent.
- The Rehabilitation Management Plan may be combined with a Mining Operations Plan, or similar plan, required under the mining lease granted for the development.

BIODIVERSITY

Biodiversity Credit Requirements

29. Unless otherwise agreed by the Secretary, the Applicant must retire the biodiversity credits specified in Table 14 below, prior to commencing vegetation clearing. The retirement of credits must be carried out in consultation with BCS and in accordance with the Biodiversity Offsets Scheme of the BC Act.

Table 14: Biodiversity credit requirements

Credit Type	Area (ha)	Offset Liability
Ecosystem Credits		
PCT 906 - Lilly Pilly - Sassafras - Stinging Tree subtropical/warm temperate rainforest on moist fertile lowlands, southern Sydney Basin Bioregion - moderate	0.01	1
PCT 1245 - Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion - low	0.02	1
Species Credits		
Large Bent-winged Bat	0.02	1
Little Bent-winged Bat	0.02	1

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Credit Type	Area (ha)	Offset Liability
Large-eared Pied Bat	0.02	1

Notes:

- *The credits in Table 14 were calculated in accordance with Biodiversity Assessment Methodology (BAM) (DPIE, 2020).*
- *The available credit retirement options for the development include purchase and retirement of open market available biodiversity credits, payment into the Biodiversity Conservation Fund or establishment of a Biodiversity Stewardship Site.*

Biodiversity Management Plan

30. The Applicant must prepare a Biodiversity Management Plan for the development, to the satisfaction of the Secretary. This plan must:
- be prepared by a suitably qualified and experienced person/s;
 - be prepared in consultation with BCS;
 - be approved by the Secretary prior to the recommencement of mining operations following approval of Modification 2;
 - establish baseline data for the existing habitat on site, including water table depth, vegetation condition, stream morphology and threatened species habitat;
 - describe the short, medium, and long-term measures to be undertaken to manage the remnant vegetation and habitat on the site;
 - include detailed performance indicators for the biodiversity related performance measures in Table 1
 - describe the measures that would be implemented to:
 - ensure compliance with the biodiversity related performance measures in Table 1;
 - minimise impacts to biodiversity on the site, including any species and communities listed under the BC Act and EPBC Act;
 - protect vegetation and fauna habitat outside of the approved disturbance areas;
 - control weeds, including measures to avoid and mitigate the spread of noxious weeds;
 - control feral pests;
 - control erosion;
 - control access to vegetated or revegetated areas; and
 - manage bushfire hazards;
 - include a program to monitor and report on the effectiveness of the above measures and identify measures that could be implemented to improve biodiversity outcomes; and
 - include details of who would be responsible for monitoring, reviewing, and implementing the plan.
31. The Applicant must implement the Biodiversity Management Plan as approved by the Secretary.
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SCHEDULE 5 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable following obtaining monitoring results showing:
 - (a) an exceedance of the relevant criteria in schedule 4, the **Applicant must** notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the **development** is complying with the relevant criteria again; or
 - (b) an exceedance of the relevant criteria in conditions 11 or 12 of schedule 4, the **Applicant must** send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).

INDEPENDENT REVIEW

2. If an owner of privately-owned land considers the **development** to be exceeding the relevant criteria in schedule 4, then he/she may ask the **Secretary** in writing for an independent review of the impacts of the **development** on his/her land.

If the **Secretary** is satisfied that an independent review is warranted, then within 2 months of the **Secretary's** decision the **Applicant must**:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the **Secretary**, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the **development** is complying with the relevant criteria in schedule 4; and
 - if the **development** is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
 - (b) give the **Secretary** and landowner a copy of the independent review.
3. If the independent review determines that the **development** is complying with the relevant criteria in schedule 4, then the **Applicant** may discontinue the independent review with the approval of the **Secretary**.

If the independent review determines that the **development** is not complying with the relevant impact assessment criteria in schedule 4, and that the **development** is primarily responsible for this non-compliance, then the **Applicant must**:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the **development** complies with the relevant criteria; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the **Secretary**.

If the independent review determines that any relevant acquisition criteria in schedule 4 are being exceeded and that the **development** is primarily responsible for this non-compliance, then upon receiving a written request from the landowner, the **Applicant must** acquire all or part of the landowner's land in accordance with the procedures in conditions 4-5 below.

LAND ACQUISITION

4. Within 3 months of receiving a written request from a landowner with acquisition rights, the **Applicant must** make a binding written offer to the landowner based on:
 - (a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the **development**, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the land and/or any approved building or structure which has been physically commenced on the land at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of any additional mitigation measures undertaken by the **Applicant** on the land;
 - (b) the reasonable costs associated with:
 - relocating within the Wollongong local government area, or to any other local government area determined by the **Secretary**; and
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
 - (c) reasonable compensation for any disturbance caused by the land acquisition process.

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If the **Applicant** and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired within 28 days after the **Applicant** makes its written offer, then either party may refer the matter to the **Secretary** for resolution.

Upon receiving such a request, the **Secretary** will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:

- consider submissions from both parties;
- determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;
- prepare a detailed report setting out the reasons for any determination; and
- provide a copy of the report to both parties.

Within 14 days of receiving the independent valuer's report, the **Applicant must** make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the **Secretary** for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the **Secretary** will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report disputing the independent valuer's determination, and any other relevant submissions.

Within 14 days of this determination, the **Applicant must** make a binding written offer to the landowner to purchase the land at a price not less than the **Secretary's** determination.

If the landowner refuses to accept the **Applicant's** binding written offer under this condition within 6 months of the offer being made, then the **Applicant's** obligations to acquire the land shall cease, unless the **Secretary** determines otherwise.

5. The **Applicant must** pay all reasonable costs associated with the land acquisition process described in condition 4 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.
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SCHEDULE 6 ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The **Applicant must** prepare and implement an Environmental Management Strategy for the **development** to the satisfaction of the **Secretary**. This strategy must:
 - (a) be submitted to the **Secretary** for approval within 6 months of this **consent**;
 - (b) provide the strategic framework for environmental management of the **development**;
 - (c) identify the statutory approvals that apply to the **development**;
 - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the **development**;
 - (e) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the **development**;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the **development**;
 - respond to any non-compliance;
 - respond to emergencies; and
 - (f) include:
 - copies of any strategies, plans and programs approved under the conditions of this **consent**; and
 - a clear plan depicting all the monitoring required to be carried out under the conditions of this **consent**.

Management Plan Requirements

2. The **Applicant must** ensure that the management plans required under this **consent** are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria;
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the **development** or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:
 - impacts and environmental performance of the **development**;
 - effectiveness of any management measures (see (c) above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
 - (f) a program to investigate and implement ways to improve the environmental performance of the **development** over time;
 - (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with conditions of this **consent** and statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
 - (h) a protocol for periodic review of the plan.

*Note: The **Secretary** may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.*

Annual Review

3. By the end of **September** each year (or other such timing as agreed by the **Secretary**), the **Applicant must** review the environmental performance of the **development** to the satisfaction of the **Secretary**. This review must:
 - (a) describe the works (including any rehabilitation) carried out in the past year, and the works proposed to be carried out over the next year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the **development** over the past year, which includes a comparison of these results against the:
 - relevant statutory requirements, limits or performance measures/criteria;
 - monitoring results of previous years; and
 - relevant predictions in the **documents listed in condition 2(a) of Schedule 2**;

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- (c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance;
- (d) identify any trends in the monitoring data over the life of the [development](#);
- (e) identify any discrepancies between the predicted and actual impacts of the [development](#), and analyse the potential cause of any significant discrepancies; and
- (f) describe what measures will be implemented over the next year to improve the environmental performance of the [development](#).

Revision of Strategies, Plans and Programs

4. Within 3 months of:
 - (a) the submission of an annual review under condition 3 above;
 - (b) the submission of an incident report under condition 6 below;
 - (c) the submission of an audit report under condition 8 below; and
 - (d) any modification to the conditions of this [consent](#) (unless the conditions require otherwise),the [Applicant must](#) review, and if necessary revise, the strategies, plans, and programs required under this [consent](#) to the satisfaction of the [Secretary](#).

Where this review leads to revisions in any such document, then within 4 weeks of the review, the revised document must be submitted to the [Secretary](#) for approval.

Note: This condition ensures that strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the [development](#).

Community Consultative Committee

5. The [Applicant must](#) establish and operate a Community Consultative Committee (CCC) for the [development](#) in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), or alternative consultative framework as may be agreed by the [Secretary](#), to the satisfaction of the [Secretary](#). This CCC or alternative framework must be operating within 6 months of this [consent](#).

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the [Applicant](#) complies with this [consent](#).*
- *In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the [Applicant](#), Council, recognised environmental groups and the local community.*
- *In establishing the CCC, the Department will accept the continued representation from existing CCC members.*

REPORTING

Incident Reporting

6. The [Applicant must](#) immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.

Regular Reporting

7. Within seven days of becoming aware of a non-compliance, the [Applicant must](#) notify the Department of the non-compliance. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance

INDEPENDENT ENVIRONMENTAL AUDIT

8. By the end of June 2013 (or other such timing as agreed by the [Secretary](#)), and every 3 years thereafter, unless the [Secretary](#) directs otherwise, the [Applicant must](#) commission and pay the full cost of an Independent Environmental Audit of the [development](#). This audit must:
 - (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the [Secretary](#);
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the [development](#) and assess whether it is complying with the requirements in this [consent](#) and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);

CONSOLIDATED CONSENT

- (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
- (e) recommend measures or actions to improve the environmental performance of the [development](#), and/or any strategy, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the [Secretary](#).

- 9. Within 6 weeks of the completion of this audit, or as otherwise agreed by the [Secretary](#), the [Applicant](#) must submit a copy of the audit report to the [Secretary](#), together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

- 10. From the end of December 2011, the [Applicant](#) must:
 - (a) make copies of the following publicly available on its website:
 - the [documents listed in condition 2\(a\) of Schedule 2](#);
 - all current statutory approvals for the [development](#);
 - approved strategies, plans and programs required under the conditions of this [consent](#);
 - a comprehensive summary of the monitoring results of the [development](#), which have been reported in accordance with the various plans and programs approved under the conditions of this [consent](#);
 - a complaints register, which is to be updated on a monthly basis;
 - minutes of CCC meetings;
 - the annual reviews of the [development](#);
 - any independent environmental audit, and the [Applicant](#)'s response to the recommendations in any audit;
 - any other matter required by the [Secretary](#); and
 - (b) keep this information up-to-date, to the satisfaction of the [Secretary](#).
-

CONSOLIDATED CONSENT

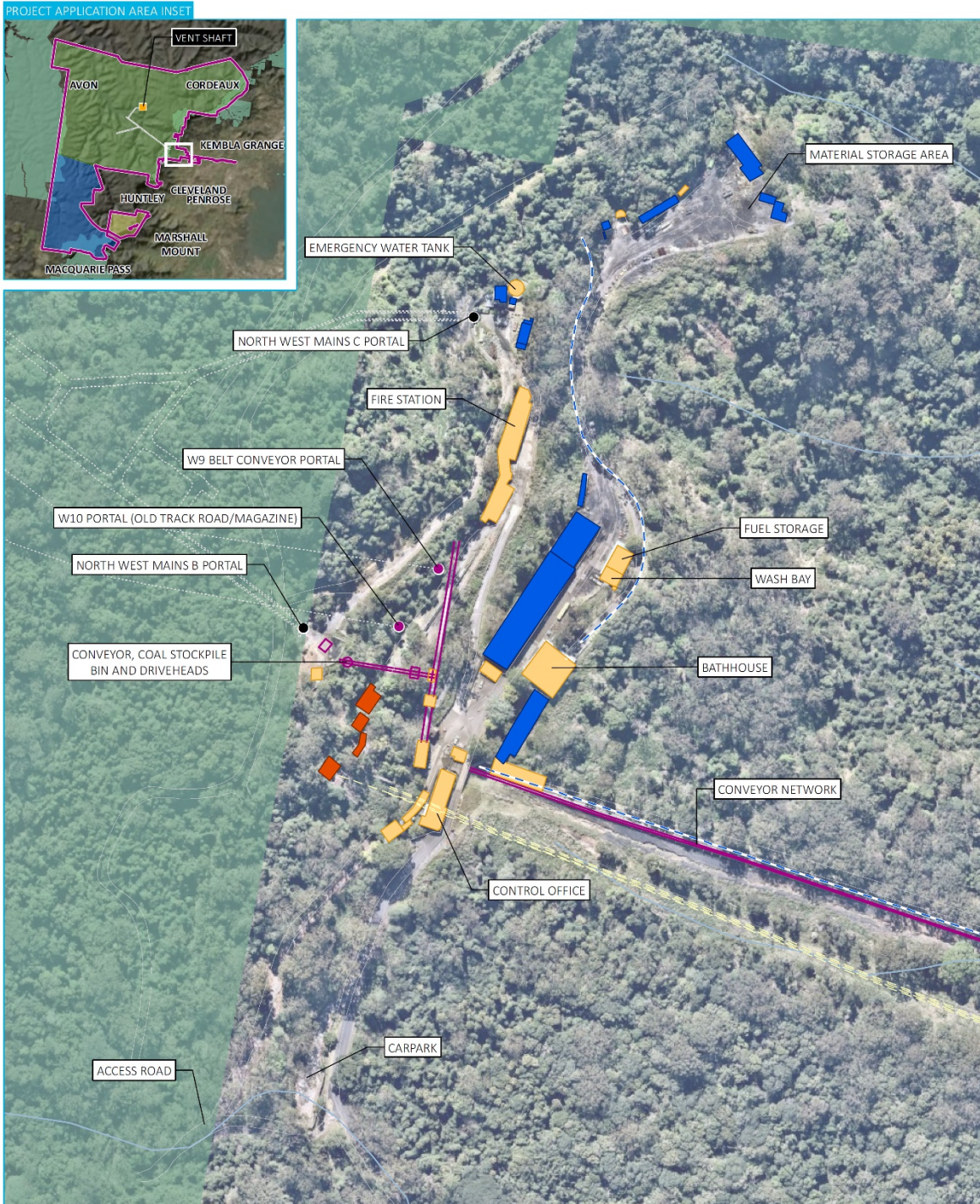
APPENDIX 1: SCHEDULE OF LAND

Property ID / Lot Number	DP Number	Owner
<i>Wongawilli - ML1596</i>		
Lot 1	321054	Gujarat NRE FCGL Pty Ltd
Lot 1	44325	Gujarat NRE FCGL Pty Ltd
Lot 1	212322	Gujarat NRE FCGL Pty Ltd
Lot 1	216373	Sydney Water
Lot 2	216373	Sydney Water
Lot 3	216373	Lexosu Pty Ltd
Lot 1	255284	Gujarat NRE FCGL Pty Ltd
Lot 2	255284	Gujarat NRE FCGL Pty Ltd
Lot 3	255284	Gujarat NRE FCGL Pty Ltd
Lot 4	255284	Gujarat NRE FCGL Pty Ltd
Lot 5	255284	Gujarat NRE FCGL Pty Ltd
Lot 6	255284	Gujarat NRE FCGL Pty Ltd
Lot 7	255284	Gujarat NRE FCGL Pty Ltd
Lot 14	255284	Gujarat NRE FCGL Pty Ltd
Lot 8	255585	Krishnaswamy & Uma Ramasamy
Lot 12	255285	Endeavour Coal Pty Ltd
Lot 1	383829	Gujarat NRE FCGL Pty Ltd
Lot 14	751278	DECCW (National park)
Lot 16	751278	DECCW (National park)
Lot 171	751278	DECCW (National park)
Lot 196	751278	Sydney Catchment Authority
Part Lot 217	751278	Sydney Catchment Authority
Lot 219	751278	Sydney Catchment Authority
Lot 220	751278	Sydney Catchment Authority
Lot 221	751278	Sydney Catchment Authority
Part Lot 275	751278	Dendrobium Coal Pty Ltd
Lot 295	751278	Springhill Farm Company Pty Ltd
Lot 281	751278	Sydney Catchment Authority
Lot 282	751278	DECCW (National park)
Lot 298	751278	DECCW (National park)
Lot 303	751278	Sydney Catchment Authority
Lot 304	751278	Sydney Catchment Authority
Lot 2	986776	Barbara Elaine Marshall, Katrina Jane Marshall, Kim Michele Marshall
Part Lot 1	986776	Barbara Elaine Marshall, Katrina Jane Marshall, Kim Michele Marshall
Part Lot 1	1001210	Sydney Catchment Authority
Lot 1	1001212	Sydney Catchment Authority

CONSOLIDATED CONSENT

Property ID / Lot Number	DP Number	Owner
Lot 1	1001213	Sydney Catchment Authority
Lot 1	1006994	Sydney Catchment Authority
Lot 301	1087464	Sydney Catchment Authority
Lot 1	1033422	Lawrence John Lawson & Dawn Mary Lawson
Part Lot 1	1103666	Dendrobium Coal Pty Ltd
Part Lot 3	1103666	Dendrobium Coal Pty Ltd
Part Lot 1	1103781	Dendrobium Coal Pty Ltd
Lot 2	1103781	Dendrobium Coal Pty Ltd
Lot 3	1103781	Dendrobium Coal Pty Ltd
Part Lot 18	1111734	Dendrobium Coal Pty Ltd
Lot 422	1123956	Gujarat NRE FCGL Pty Ltd
Lot 423	1123956	Gujarat NRE FCGL Pty Ltd
Lot 424	1123956	Gujarat NRE FCGL Pty Ltd
Lot 425	1123956	Gujarat NRE FCGL Pty Ltd
Lot 19	1131362	Sydney Catchment Authority
Lot 1	1132869	The Minister for Public Works
<i>Avondale - ML1565</i>		
Lot 41	751263	Sherwood Hannington
Lot 42	751263	Gerard Kevin McCue
Part Lot 43	751263	Edward Roy Vergan & Kim Pamela Vergan Jason Bernard Voorwinden & Esther Olive Voorwinden
Lot 111	751263	Voorwinden
Part Lot 140	751277	Sydney Catchment Authority
Part Lot 181	751277	Sydney Catchment Authority
<i>CCL 766</i>		
Par Lot 27	3083	HTT Huntley Heritage Pty Ltd
Part Lot 111	585959	Craig Duren
Lot 2	751263	The Council of the City of Wollongong Angelo Vincenzo Di Martino & Sally Elizabeth Di Martino
Part Lot 40	751263	Elizabeth Di Martino
Lot 49	751263	HTT Huntley Heritage Pty Ltd
Part Lot 55	751263	HTT Huntley Heritage Pty Ltd
Part Lot 3	852180	Caroline Joan Forbes
Lot 10	867347	HTT Huntley Heritage Pty Ltd
<i>Across all leases</i>		
Lot 32	1138149	Sydney Catchment Authority

CONSOLIDATED CONSENT



Source: EMM (2020); WCL (2020); DFSI (2017); GA (2011); ASGC (2006)



KEY

- Project application area
- Approved NWMD portal
- Additional NWMD access portal
- Site infrastructure
- ETL - 33kV
- Access roads and tracks
- Conveyor, coal stockpile bin and driveheads
- Wongawilli Colliery rail
- Underground workings

- Existing surface infrastructure
- Existing site workshop/shed
- Water collection and treatment
- Historic mining infrastructure
- Existing environment
- Minor road
- Watercourse/drainage line
- NPWS reserve

PROJECT APPLICATION AREA INSET KEY

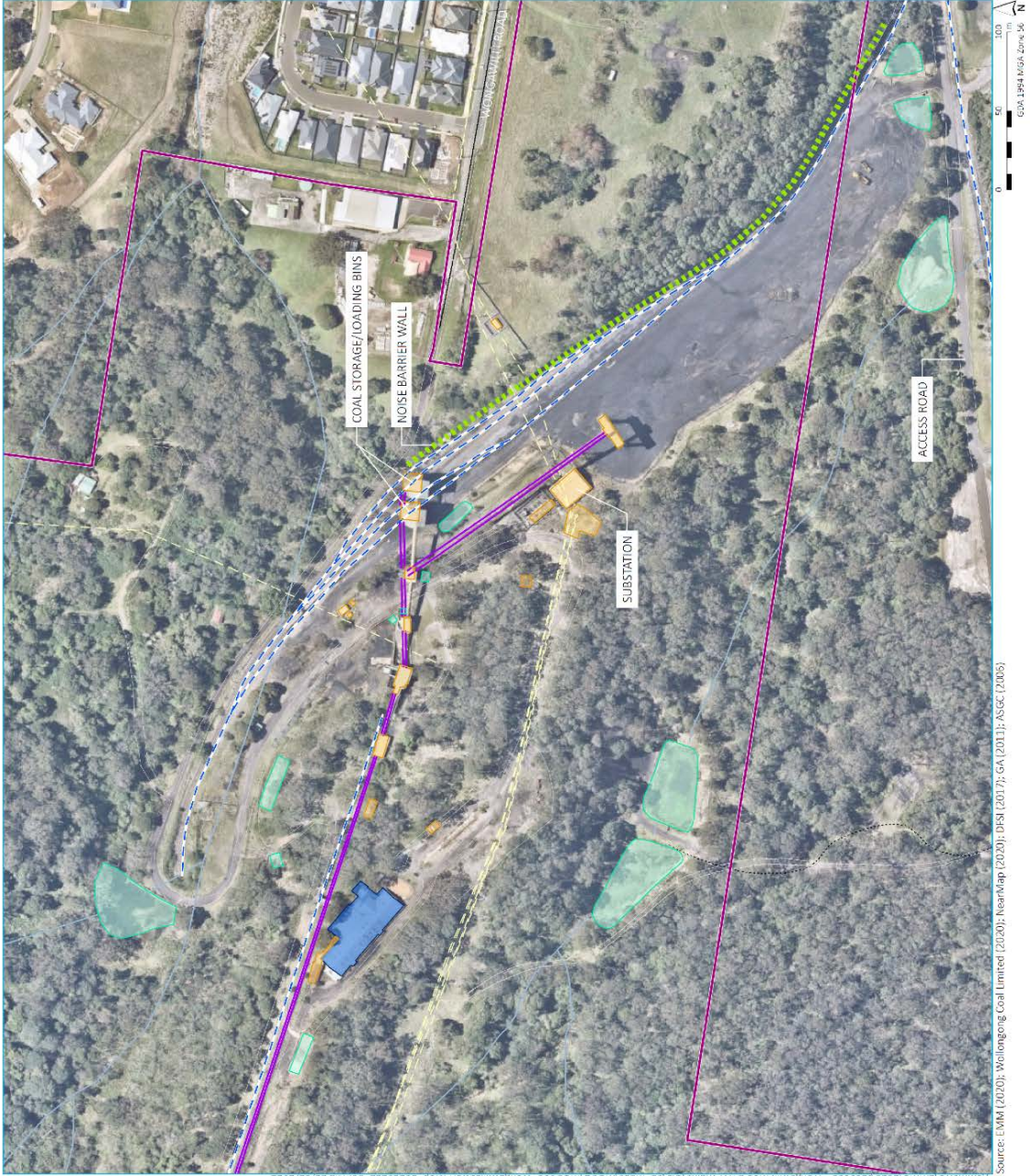
- Vent shaft
- Underground workings
- Mining title
- ML 1565
- ML 1596
- CCL 766

Wongawilli upper pit top

Wollongong Coal Limited



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- KEY**
- Project application area
 - Site infrastructure
 - ETL - 33kV
 - Access roads and tracks
 - Conveyor belt
 - Wongawilli Colliery rail
 - Noise barrier (6 m height)
 - Existing surface infrastructure
 - Site workshop/shed
 - Grey water ponds
 - Existing environment
 - Minor road
 - Venicular track
 - Watercourse/drainage line
 - INSET KEY
 - Vent shaft
 - Underground workings
 - NPWS reserve
 - Mining title
 - ML 1565
 - ML 1596
 - CCL 766

Wongawilli lower pit top

Wollongong Coal Limited



Source: EMM (2020); Wollongong Coal Limited (2020); NearMap (2020); DSI (2017); GA (2013); ASGC (2005);

APPENDIX 3:

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FOR INFORMATION

APPENDIX 4: RECEIVER LOCATION PLAN



- KEY**
- Project application area
 - Proposed noise compliance monitoring locations
 - Real-time noise monitor
 - Vent shaft (refer to inset)
 - Site infrastructure**
 - Wongawilli Colliery rail
 - Underground workings
 - Site layout
 - EXISTING environment**
 - Minor road
 - Vehicular track
 - Named watercourse
 - NPWS reserve



Sources: EMM (2021); Wollongong Coal Limited (2021); DFSI (2017); GA (2011); ASGC (2006)

Proposed noise compliance monitoring locations

Wollongong Coal Limited
Wongawilli Colliery Modification Report
Figure 1





Site	Wongawilli Colliery	DOC ID	WWC EC PLN 012
Type	Plan	Date Published	1 August 2022
Doc Title	REHABILITATION MANAGEMENT PLAN		

Appendix A2 – Mining Lease ML1565

MINING LEASE
MINING ACT 1992

NO. 1565

DATED 2 August 2006

THE MINISTER FOR MINERAL RESOURCES
OF THE STATE
OF NEW SOUTH WALES
TO

GUJARAT NRE FCGL PTY LTD
(A. C. N. 111 928 762)

MINING LEASE

MINING ACT 1992
Section 123(2)

THIS DEED is made the ---- second ----- day of ----August -----Two thousand and six

BETWEEN IAN MACDONALD, MLC, MINISTER FOR MINERAL RESOURCES in and for the State of New South Wales ("The Minister")

AND Gujarat NRE FCGL Pty Ltd (A. C. N. 111 928 762) the Transferee under a partial transfer of **Consolidated Coal Lease No. 700 (Act 1973)** ("The Original lease").

WHEREAS

- (a) **Consolidated Coal Lease No. 700 (Act 1973)** ("the Original Lease") was duly granted pursuant to the Coal Mining Act 1973 and is held **HTT Huntley Heritage Pty Ltd (A. C. N. 086 238 682)** ("the Original lease holder") to prospect and mine for coal and is current until **9 October 2015**
- (b) The Original lease holder has applied to the Minister for a transfer to the lease holder of part of the Original Lease, comprising an area of **3177 hectares** and delineated on the plan annexed hereto.
- (c) The lease holder concurs in the partial transfer.
- (d) The Minister has approved the partial transfer subject to this Deed.
- (e) Pursuant to section 123(2) of the Mining Act 1992 the terms of the new lease created by the partial transfer are contained in this Deed.

NOW THIS DEED WITNESSES AS FOLLOWS:

1. The Minister hereby demises and leases to the lease holder ALL THAT piece or parcel of land containing by admeasurement about **3177 hectares** and delineated in the annexed **Plan No M27061** for the purposes of prospecting and mining for coal, and for a period ending on the expiry date of the Original Lease, that is to say, on the **ninth day of October, 2015**.

TO HOLD the said land together with any appurtenances thereon, subject to such rights and interests as may lawfully be subsisting therein or which may be reserved by the Act as at the date of this Deed, and subject further to Mining Lease Conditions 2004 Nos **1 to 10 (inclusive), 12, 15, 16, 17, 19, 23, 24, 25, 27, 28 and 29**. Condition Nos. 2, 3, 4, 15 - 19 (inclusive) are identified as conditions relating to environmental management for the purposes of Sections 125(3) and 374A of the Mining Act 1992.

2. THAT in this lease except insofar as the context otherwise indicates or requires:

- (a) any reference to an Act includes that Act and any Act amending or in substitution for the same; "Director-General" means the person for the time being holding office or acting as Director-General, Department of Primary Industries; the word "mine" has the meaning assigned to it by the Act; words importing the singular number shall include the plural, the masculine gender the feminine or neuter gender and vice versa; and
- (b) any covenant on the part of two or more persons shall be deemed to bind them jointly and severally.

- 3. THAT the lease holder shall during the said term pay to the Minister in Sydney in respect of all such minerals as stated, recovered from the land hereby demised, royalty at the rate or rates prescribed by the Act and the Regulations thereunder at the time the minerals are recovered, or at the rate or rates fixed by the Minister from time to time during the term of this demise in exercise of the power in that behalf conferred upon him by the Act.
- 4. THAT the lease holder shall at all times during the term of this lease keep and preserve the said mine from all avoidable injury or damage and also the levels, drifts, shafts, watercourses, roadways, works, erections and fixtures therein and thereon in good repair and condition and in such state and condition shall on the expiration or sooner determination of the said term or any renewal thereof deliver possession of the land and the premises hereby demised to the Minister or other persons authorised to receive possession thereof.

PROVIDED always and it is hereby declared as follows:

- (a) THAT this lease is granted subject to amendment as provided under Section 79 of the Act.
- (b) THAT if the lease holder at any time during the term of this demise -
 - (i) fails to fulfil or contravenes the covenants and conditions herein contained; or
 - (ii) fails to comply with any provision of the Act or the Regulations with which the lease holder is required to comply; or
 - (iii) fails to comply with the requirements of any agreement or assessment in relation to the payment of compensation,

this lease may be cancelled by the Minister by instrument in writing and the cancellation shall have effect from and including the date on which notice of the cancellation is served on the lease holder or on such later date as is specified in the notice; and any liability incurred by the lease holder before the cancellation took effect shall not be affected.

- (c) THAT no implied covenant for title or for quiet enjoyment shall be contained herein.

- (d) THAT all the conditions and provisions contained in the Mining Act 1992 and the Regulations thereunder, the Mines Inspection Act 1901 and the Coal Mines Regulation Act 1982 or any other law hereafter to be passed or prescribed shall be incorporated within this Deed as conditions and provisions of the lease granted. The lease holder hereby covenants to observe, fulfil and perform the same.

- (e) THAT such of the provisions and conditions declared and contained in this Deed as requiring anything to be done or not to be done by the lease holder, shall be read and construed as covenants by the lease holder with the Minister which are to be observed and performed.

IN WITNESS WHEREOF the parties hereto have executed this Deed the day and year first
abovewritten.

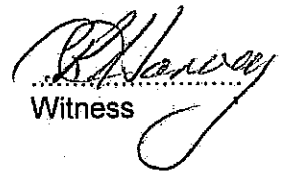
SIGNED AND DELIVERED
BY

GUJARAT NRE FCGL PTY LTD
(A. C. N. 111 928 762)

in the presence of



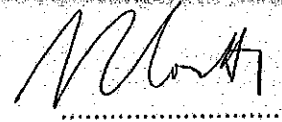
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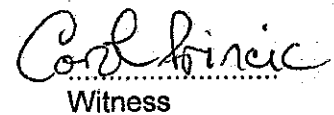
Witness

SIGNED AND DELIVERED
UNDER DELEGATION BY THE
MINISTER FOR MINERAL RESOURCES

in the presence of



.....



Witness

MINING LEASE CONDITIONS 2004

Notice to Landholders

1. Within a period of three months from the date of grant of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.

If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted, state whether the lease includes the surface and must contain an adequate plan and description of the lease area.

Mining, Rehabilitation, Environmental Management Process (MREMP) Mining Operations Plan (MOP)

2. (1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:-
 - (a) ongoing mining operations and environmental management; and
 - (b) ongoing monitoring of the project.
- (2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.
- (3) A Plan must be lodged with the Director-General:-
 - (a) prior to the commencement of mining operations (including mining purposes);
 - (b) subsequently as appropriate prior to the expiry of any current Plan; and
 - (c) in accordance with any direction issued by the Director-General.
- (4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:-
 - (a) area(s) proposed to be disturbed under the Plan;
 - (b) mining and rehabilitation method(s) to be used and their sequence;

- (c) areas to be used for disposal of tailings/waste;
 - (d) existing and proposed surface infrastructure;
 - (e) existing flora and fauna on the site;
 - (f) progressive rehabilitation schedules;
 - (g) areas of particular environmental, ecological and cultural sensitivity and measures to protect these areas;
 - (h) water management systems (including erosion and sediment controls);
 - (i) proposed resource recovery; and
 - (j) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.
- (5) The Plan when lodged will be reviewed by the Department.
- (6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.
- (7) If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation of the Plan.
- (8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.

Annual Environmental Management Report (AEMR)

3. (1) Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.
- (2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:
- (a) the accepted Mining Operations Plan;
 - (b) development consent requirements and conditions;
 - (c) Department of Environment and Conservation and Department of Planning licences and approvals;

- (d) any other statutory environmental requirements;
 - (e) details of any variations to environmental approvals applicable to the lease area; and
 - (f) where relevant, progress towards final rehabilitation objectives.
- (3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.
- (4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.

Subsidence Management

4. (a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.
- (b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gateroads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the *Guideline for Applications for Subsidence Management Approvals*.
- (c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the *Coal Mines Regulation Act 1982*, or the document *New Subsidence Management Plan Approval Process – Transitional Provisions*.
- (d) Subsidence Management Plans are to be prepared in accordance with the *Guideline for Applications for Subsidence Management Approvals*.
- (e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document *New Approval Process for Management of Coal Mining Subsidence - Policy*.

Working Requirement

5. The lease holder must:
- (a) ensure that at least **128** competent people are efficiently employed on the lease area on each week day except Saturday or any week day that is a public holiday,
- OR
- (b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than **\$2,240,000.00** per annum whilst the lease is in force.

The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.

Control of Operations

6. (a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-
- (i) cease working the lease; or
 - (ii) cease that part of the operation not complying with the Act or conditions;
- until in the opinion of the Environmental Officer the situation is rectified.
- (b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.
 - (c) A direction referred to in this condition may be served on the Mine Manager.

Reports

7. The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:
- (a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;
 - (b) Details of expenditure incurred in conducting that exploration;

- (c) A summary of all geological findings acquired through mining or development evaluation activities;
- (d) Particulars of exploration proposed to be conducted in the next twelve months period;
- (e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.

Licence to Use Reports

- 8. (a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.
- (b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.

Confidentiality

- 9. (a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where:
 - (i) the lease holder has agreed that specified reports may be made non-confidential.
 - (ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.
- (b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.
- (c) The Director-General may extend the period of confidentiality.

Terms of the non-exclusive licence

- 10. The terms of the non-exclusive copyright licence granted under condition 8 (a) are:
 - (a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.
 - (b) the Minister and any sub-licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.

- (c) the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.
- (d) there is no royalty payable by the Minister for the licence.
- (e) if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months notice.

Safety

12. Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.

Exploratory Drilling

15. (1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Planning regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.
- (2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-
- (a) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;
 - (b) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;
 - (c) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters;
 - (d) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;
 - (e) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.
 - (f) once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.

- (g) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.

Prevention of Soil Erosion and Pollution

- 16. 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 Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.

Transmission lines, Communication lines and Pipelines

- 17. Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.

Roads and Tracks

- 19. (a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate.
- (b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.

Resource Recovery

- 23. (a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.
- (b) The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.
- (c) The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.

- (d) The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.
- (e) The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.
- (f) After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.

Indemnity

24. The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.

Security

25. (a) A security in the sum of **\$15,000.00** must be given and maintained with the Minister by the lease holder for the purpose of 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 regulations made thereunder.
- (b) The lease holder must provide the security required by sub-clause (a) in one of the following forms:
- (i) cash,
 - (ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.

Prescribed Dam

27. (A) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the notification area of the **Avon Dam** without the prior written approval of the Minister and subject to any conditions he may stipulate.
- (B) Where the lease holder desires to mine within the notification area he must:
- (i) at least twelve (12) months before mining is to commence or such lesser time as the Minister may permit, notify the Minister of the desire to do so. A plan of the mining system to be implemented must accompany the notice; and
 - (ii) provide such information as the Minister may direct.
- (C) The Minister must not, except in the circumstances set out in sub-paragraph (ii), grant approval unless sub-paragraph (i) of this paragraph has been complied with.
- (i) This sub-paragraph is complied with if:
 - (a) the Dams Safety Committee as constituted by Section 7 of the Dams Safety Act 1978 and the owner of the dams have been notified in writing of the desire to mine referred to in paragraph (B).
 - (b) the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined.
 - (c) the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dams for further information in connection with the mining proposal.
 - (d) the Dams Safety Committee has made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not propose to make any such recommendations; and
 - (e) where the Dams Safety Committee has made recommendations the approval is in terms that are:
 - (i) in accordance with those recommendations;
 - or
 - (ii) where the Minister does not accept those recommendations or any of them - in accordance with a determination under sub-paragraph (ii) of this paragraph.

- (ii) Where the Minister does not accept the recommendations of the Dams Safety Committee or where the Dams Safety Committee has failed to make any recommendations and has not informed the Minister in writing that it does not propose to make any recommendations, the approval shall be in terms that are, in relation to matters dealing with the safety of the dams:
 - (a) as determined by agreement between the Minister and the Minister administering the Dams Safety Act 1978; or
 - (b) in the event of failure to reach such agreement - as determined by the Premier.
- (D) The Minister, on notice from the Dams Safety Committee, may at any time or times:
- (i) cancel any approval given where a notice pursuant to Section 18 of the Dams Safety Act 1978 is given.
 - (ii) suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.

Catchment Areas

28. (a) The lease holder shall carry out operations in such a way as to conform strictly to all provisions of the Sydney Water Catchment Management Act 1998 and the regulations thereunder applying to the prevention of pollution of the **Metropolitan Special Area** or the preservation of the purity of the water supply provided thereby or derived therefrom or for the protection of the property of Sydney Catchment Authority [hereinafter referred to as the 'the Authority'] on the Special Area and also to all requirements of the Authority from time to time under the said Act or any of the regulations for the time being in force.
- (b) If the lease holder shall at any time be using or about to use any process which in the opinion of the Authority is likely to pollute the Special Area or the water supply or to endanger any property of the Authority on the Special Area the lease holder upon service of a notice in writing under the hand of the Minister to do so shall:
- (i) discontinue the use of such process immediately, or
 - (ii) thereafter refrain from adopting such process at any time, as the case may require.

- (c) The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent the contamination, pollution, erosion or siltation of any stream or watercourse or Special Area and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution or siltation of any stream watercourse or Special Area.
- (d) The lease holder hereby covenants with Us Ours Heirs and Successors and as a separate covenant the lease holder hereby covenants with the Authority and its Successors that the lease holder shall at all times hereafter save harmless and keep Us and the said Authority and Our Heirs and Successors and the Successors of the said Authority indemnified from payment of compensation and from and against all actions proceedings claims and demands in respect of any injury loss of damage arising out of or in any way connected with any interference with or deprivation or loss of access to the land and premises of this authority which may occur by reason of any works or operations undertaken or carried out by the said Authority or arising out of or in any way connected with any discontinuance or alteration of any process consequent upon the service of a notice in pursuance of the provisions of Condition 28(b) or arising out of or in any way connected with the operation of any regulations relating to Special Areas in force at the date hereof or made by the said Authority at any time hereafter and the lease holder hereby agrees that for the purpose of this condition the said Authority shall be deemed to be a party to this authority.

29. The lease holder shall:

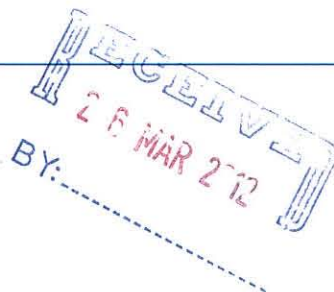
- (a) Make such provisions for sanitation as may be directed by the Authority and shall at all times observe and perform any requirements of the said Authority respecting sanitation.
- (b) not establish any camps or habitations within any area under the control of the Authority unless with the consent of the Authority.
- (c) Not sink any drillhole within the stored waters on the subject area nor within **40** metres of the top water level thereof unless with the consent of the Authority.
- (d) Not sink any drillhole within any watercourse on the **Metropolitan Special Area** nor within **800** metres thereof unless with the consent of the Authority.
- (e) Not interfere with or impede the use of the Authority tracks of endanger their stability in any way by reason of the operations.
- (f) Not construct any road to the sites of any drillholes unless with the consent of the Authority to the proposed route and type of road construction.

- (g) Not interfere in any way with any fences on or adjacent to the **Metropolitan Special Area** unless with the consent in writing of the owner thereof or the Authority.
- (h) Give twenty eight days notice to the General Manager, Catchment Operations and Major Projects, Sydney Catchment Authority, Penrith, of its intention to commence drilling operations.
- (i) Not cut or remove any timber except such as directly obstructs or prevents the carrying on of operations and the lease holder shall obtain the consent in writing of the Authority before making use of the timber so cut for other than in connection with operations.
- (j) Complete work in relation to rehabilitation within the **Metropolitan Special Area** before termination of the authority to the satisfaction of the Authority.



Site	Wongawilli Colliery	DOC ID	WWC EC PLN 012
Type	Plan	Date Published	1 August 2022
Doc Title	REHABILITATION MANAGEMENT PLAN		

Appendix A3 – Mining Lease ML1596



Reference: 09/452

Dr Chris Harvey
Head of Technical Services
Gujarat NRE FCGL Pty Ltd
PO Box 281
FAIRY MEADOW NSW 2519

Dear Sir

**MINING LEASE NO 1596 (ACT 1992)
NRE Wongawilli Colliery**

In accordance with the provisions of Section 114(1) (a) of the *Mining Act 1992*, the Minister renewed the lease subject to the terms and conditions set out in the attached Instrument of Renewal document.

The renewal took effect on 3 February 2012.

Please note prior to any mining activities being undertaken on the lease, a current Mining Operations Plan must be approved by the Director-General. The holder of the lease may also be required to hold a current development consent/project approval before commencing activities in accordance with the *Environmental Planning & Assessment Act 1979*.

An overview of the environmental assessment and approval requirements for mining is available on the Departments website at <http://www.dpi.nsw.gov.au/minerals/environment/overview>. Format and guidelines regarding the preparation of a Mining Operations Plan are available on the Department's website at <http://www.dpi.nsw.gov.au/minerals/environment/pgf>.

In regard to Condition 24 (Cooperation Agreement) -- the TASMAL system located on the Department's website <http://www.dpi.nsw.gov.au/minerals/titles/online-services/tasmap> will be of assistance in determining the presence of overlapping petroleum titles.

For further information, please contact the undersigned on 02-4931 6578.

Yours faithfully

Jeff Inman
22 March 2012

INSTRUMENT OF RENEWAL

LEASE: Mining Lease No 1596 (Act 1992)

HOLDER: Gujarat NRE FCGL Pty Ltd (ACN 111 928 762)

DATE OF LEASE: 19 December 2007

EXPIRY DATE OF LEASE: 18 October 2010

PERIOD OF RENEWAL UNTIL: 07 October 2029

AREA: 11,074 hectares

AS SHOWN BY PLAN NO M27121

SURFACE EXCEPTION: Various

DEPTH RESTRICTION: Various to a maximum depth of 900 below Australian Height Datum (AHD)

MINERALS: Coal

Agricultural Lime

ROYALTY PAYABLE: At the rate which, from time to time, may be prescribed.

AMENDMENTS TO THE CONDITIONS OF THE LEASE:

(a) All the Conditions contained in the lease prior to the renewal have been deleted.

(b) The lease is now subject to the attached Mining Lease Conditions 2010 numbered:

1-15 (inclusive), 17-19 (inclusive) and 22-25 (inclusive)

Conditions 2 to 8 and 12 to 15 are identified as conditions relating to environmental management for the purposes of Section 378D of the *Mining Act 1992*.

Note: Conditions 2 to 8 and 12 to 15 of this mining lease are imposed pursuant to sections 238 and 239 of the Mining Act 1992. Clause 7 of Schedule 12 of the Mining Regulation 2010 saves higher penalties for a breach of condition imposed by or under sections 238 or 239 of the Act.

We, Gujarat NRE FCGL Pty Ltd (ACN 111 928 762), hereby accept the renewal of this Lease and agree to be bound by the conditions specified.



.....
Gujarat NRE FCGL Pty Ltd
(ACN 111 928 762)



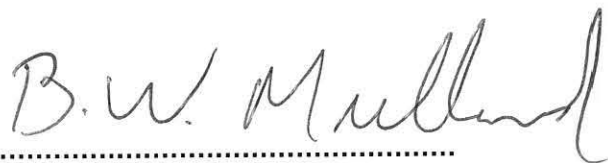
Renewed this

3rd

day of

February

20 12.



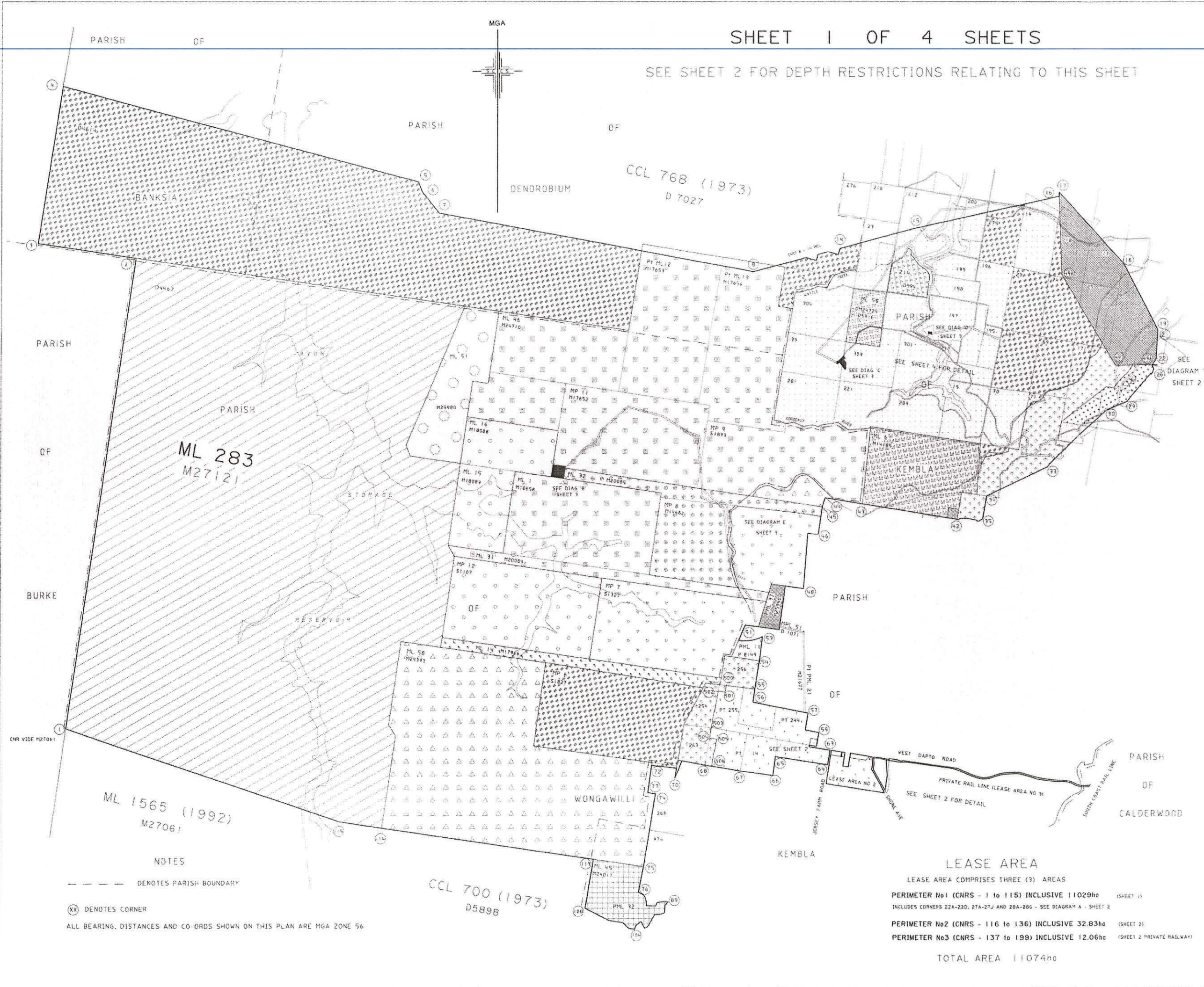
.....
by delegation from the Minister.

SHEET 1 OF 4 SHEETS

SEE SHEET 2 FOR DEPTH RESTRICTIONS RELATING TO THIS SHEET

LIST OF PLANS USED

DP 1017684	MS 7435-30005X	D 7027
DP 255284	R 12549-1609	M 27061
DP 607454	R 4517-1609	D 4467
DP 212922	R 29724-1609	D 6028
DP 551411	1267-672	ML 45
DP 229044	1138-672	PML 32
DP 18020	1262-672	S 1827
DP 357833	C615-1521	M 17966
DP 607456	C405-1521	M 18089
DP 718106	R 3552-1609	S 1327
DP 37650	R 4704-1609	P 8149
DP 223866	1259-672	M 25940
DP 618764	1206-672	M 20084
DP 223865	1282-672	M 10658
DP 828732	1207-672	M 14682
DP 255285		M 20085
DP 216373	M 21677	M 18088
DP 1009482	D 1071	M 24710
DP 401354	D 1135	M 17652
DP 606150	M 25449	S 1893
DP 1087464	M 25794	M 25980
DP 751278	D 4500	D 4614
DP 745805	D 4585	P 6182
	M 24769	M 14185
	M 23292	M 24725



PLAN OF PORTION ML 283 (ADOPTED)	
PARISH DENDROBIUM KEMBLA WONGAWILLI BANKSIA CALDERWOOD	
COUNTY LAMONK	
MAP SHEET No. 9029-2-S 9029-3-S & 9028-4-N	
REDUCTION RATIO 1:25000	
PART TRANSFER OF CCL 768 (ACT 1973)	
MINING DIVISION SYDNEY	
TRANSFEREE GUJARAT NRE FEED PTY LTD	
APPLICATION DATE	
MINING LEASE No. 1596 (ACT 1992)	
STATUS	
METHOD UNDERGROUND	
SURFACE EXCEPTION / DEPTH RESTRICTION	
VARIOUS RESTRICTIONS APPLY - SEE SHEETS FOR DETAILS	
NOTES: MINING RIGHTS VIDE D7027 APPLY TO AREAS WITHIN THIS LEASE D 7027 TO BE READ IN CONJUNCTION WITH THIS PLAN	
Arbitrator PH16162 - PM96169	
Plans used in the course of this part survey and part compilation: SEE SEPARATE PANEL (ABOVE THIS TITLE BLOCK) Survey declared on this plan for MINES SURVEY FOR SURFACE RIGHTS - SUBSTRATA BY COMPILATION COMPILATION OF SURFACE RIGHTS (SHAFT SITES) WITHIN CATCHMENT	
I, ANDREW A NESBITT of SOUTHERN CROSS CONSULTING SURVEYORS a Licensed and Mining Surveyor registered under the Surveying Act 2002, hereby certify that the survey & compilation represented on this plan is accurate and has been completed in accordance with the Surveying Regulation 2004 and the Surveyor General's Direction for Mining Surveys and was completed on 25 OCTOBER 2007	
Signature	<i>Andrew Nesbitt</i>
Surveyors Reference	21152 DWG0001M
Survey Date	12-12-07
Plan Investigated	<i>[Signature]</i>
Plan Approved	<i>[Signature]</i> 12-12-07
Paper No	07 - 739X

NOTES
 --- DENOTES PARISH BOUNDARY
 (XX) DENOTES CORNER
 ALL BEARING, DISTANCES AND CO-ORDS SHOWN ON THIS PLAN ARE MGA ZONE 56

LEASE AREA
 LEASE AREA COMPRISES THREE (3) AREAS
 PERIMETER No1 (CNRS - 1 to 115) INCLUSIVE 11029ha (SHEET 1)
 INCLUDES CORNERS 22A-22D, 27A-27J AND 28A-28G - SEE DIAGRAM A - SHEET 2
 PERIMETER No2 (CNRS - 116 to 136) INCLUSIVE 32.83ha (SHEET 2)
 PERIMETER No3 (CNRS - 137 to 199) INCLUSIVE 12.06ha (SHEET 2 PRIVATE RAILWAY)
 TOTAL AREA 11074ha

M 27121

REFERENCE TO CORNERS				
COR.	BEARING	FROM	DIST.	REMARKS
64	278° 46'	RMGP	1-0	TO PEG PLACED
127	296° 17'	PM76655	3-04	TO PEG PLACED
142	98° 55'	RMGP	1-0	TO PEG PLACED
152	188° 41'	RMGP	1-0	TO PEG PLACED

SURVEY CONNECTIONS					
FROM	TG	BEARING BY ME	DISTANCE BY ME	SCIMS BEARING	SCIMS DISTANCE
PM 46163	PM 76655	98°59'10"	604.57	98°58'23"	604.59
PM 76655	PM 46162	169°15'30"	299.44	169°15'41"	299.473
PM 46162	PM 46163	297°11'39"	72.55	297°11'39"	72.542
PM 46163	CNR 67	285°17'20"	223.40		
PM 76655	CNR 127	296°16'40"	3.04		
PM 46162	CNR 137	151°00'40"	296.69		

SURVEYING REGULATION 2006 - (CL 35(1)(b) & CL 61 (2))					
MARK	EASTING	NORTHING	ZONE	CLASS	ORDER
PM 46163	294222.161	6182591.294	56	B	2
PM 76655	294819.725	6182496.823	56	B	2
PM 46162	294863.946	6182261.544	56	B	2

SOURCE: MGA CO-ORDINATES ADOPTED FROM SCIMS AS AT 17/09/2007.
COMBINED SCALE FACTOR 1.00011

CL 4.1 DIRECTIONS FOR MINING SURVEYS		
APPLICANTS PEGS PLACED AT		
CNR	EASTING	NORTHING
64	294169.91	6182381.70
127	294816.60	6182498.17
142	294852.09	6182492.61
152	294988.90	6182318.94

STAKES MARKED M.L. 283
INDICATE THE CORNERS AS MARKED

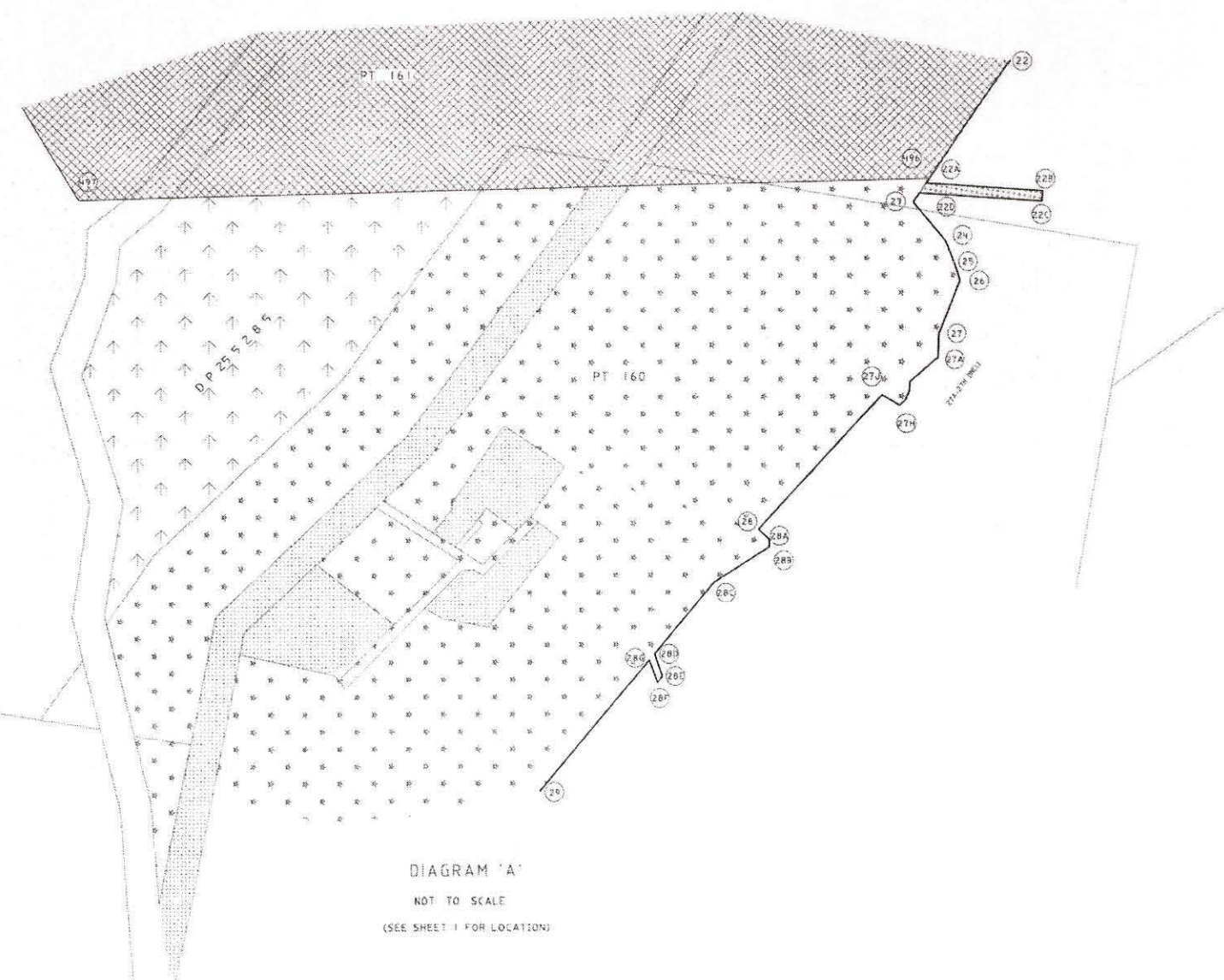
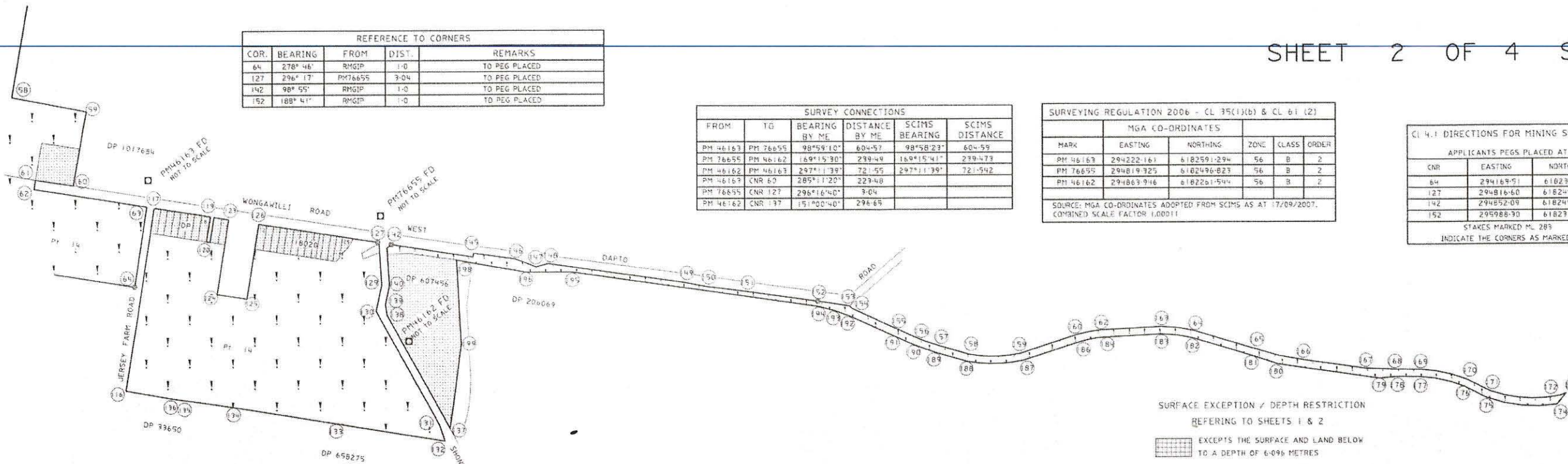


DIAGRAM 'A'
NOT TO SCALE
(SEE SHEET 1 FOR LOCATION)

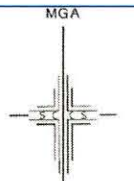
SURFACE EXCEPTION / DEPTH RESTRICTION
REFERING TO SHEETS 1 & 2

- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 6-096 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 15-24 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 20-0 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 30-48 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 50-0 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 60-0 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 60-96 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 65-0 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 75-0 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 91-44 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 100-0 METRES
- EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 65-0 METRES AND EXCEPTS THE LAND BELOW A DEPTH OF 3-048 METRES BELOW THE FLOOR OF COAL SEAM KNOWN IN THE DEPARTMENT OF PRIMARY INDUSTRIES AS THE WONGAWILLI SEAM
- EMBRACES THE SUBSTRATA BELOW 15-24 METRES BELOW THE SURFACE AND THE COAL ONLY ABOVE THAT DEPTH
- EMBRACES THE STRATA BETWEEN THE DEPTHS OF 76-2 METRES FROM THE SURFACE TO 5-0 METRES BELOW THE FLOOR OF THE COAL SEAM KNOWN IN THE DEPARTMENT OF PRIMARY INDUSTRIES AS THE WONGAWILLI SEAM
- EMBRACES THE COAL AND SUBSTRATA BELOW, 6-0 METRES BELOW THE FLOOR OF THE BULLI SEAM
- EXCLUDES THE SUPERFICIES
- EMBRACES THE MINES, BEDS VEINS AND SEAMS OF COAL ONLY
- EMBRACES THE SURFACE AND LAND BELOW TO AN UNLIMITED DEPTH
- EXCEPTS THE SURFACE AND LAND BELOW TO THE ROOF OF THE COAL SEAM KNOWN IN THE DEPARTMENT OF PRIMARY INDUSTRIES AS THE WONGAWILLI SEAM
- EXCLUDES THE SURFACE AND SUBSTRATA ABOVE REDUCED LEVEL 190m AHD

NOTE: AHD = AUSTRALIAN HEIGHT DATUM

PLAN OF PORTION	ML 283 (ADOPTED)
PARISH DENDROBIUM KEMBLA WONGAWILLI BANKSIA CALDERWOOD	
COUNTY CAMDEN	
MAP SHEET No. 9029-2-S 9029-3-S & 9020-4-N	
REDUCTION RATIO - NOT TO SCALE	
PART TRANSFER CELL 68 (ACT 1971)	
MINING DIVISION SYDNEY	
TRANSFEREE GUJARAT NRE PUG. PITY LTD	
APPLICATION DATE	
MINING LEASE No. 1596 (ACT 1992)	
STATUS	
METHOD UNDERGROUND	
SURFACE EXCEPTION / DEPTH RESTRICTION	
VARIOUS RESTRICTIONS APPLY - SEE SHEETS FOR DETAILS	
NOTES MINING RIGHTS VIDE D7027 APPLY TO AREAS WITHIN THIS LEASE D7027 TO BE READ IN CONJUNCTION WITH THIS PLAN	
Azimuth: SEE SHEET 1	
Plans used in the course of this survey/compilation:	
Survey declared on this plan for lines	
I, Andrew A. Neidert, of SOUTHERN CROSS CONSULTING SURVEYORS a Land and Mining Surveyor registered under the Surveying Act 2002, hereby certify that the survey/compilation represented in this plan is accurate and has been completed in accordance with the Surveying Regulation 2006 and the Surveyor General's Direction for Mining Surveys and was completed on 25 October 2007.	
Signature	<i>Andrew A. Neidert</i>
Surveyors Reference	21152 DW50002L
Survey Date	<i>2007</i>
Plan Investigated	<i>12-12-07</i>
Plan Approved	<i>god 12-12-07</i>
Plan No.	07 - 7939

M 27121



PERIMETER CORNERS - AREA No 1

FROM	TO	BRG	DIST	CNR	MGA 56 - E	MGA 56 - N
1	2	8 16 47	6928-820	2	284129-47	6182287-36
2	3	278 21 53	1437-611	3	284129-47	6189762-51
3	4	8 54 13	2309-382	4	283204-58	6192244-07
4	5	105 03 06	5316-857	5	288273-18	6190862-38
5	6	159 22 16	152-108	6	288273-18	6190720-27
6	7	141 07 30	400-671	7	288252-65	6190408-34
7	8	100 39 19	14641-793	8	293087-45	6189558-12
8	9	74 53 03	789-001	9	289702-68	6189714-54
9	10	105 29 02	153-966	10	293997-89	6189721-44
10	11	15 29 04	90-630	11	294022-10	6189808-84
11	12	74 50 05	153-392	12	294170-26	6189848-58
12	13	105 29 04	152-807	13	294170-26	6189871-76
13	14	15 29 01	90-653	14	294341-64	6189894-54
14	15	74 50 03	1104-006	15	295007-95	6190180-56
15	16	77 21 13	2168-121	16	295247-47	6190655-25
16	17	95 08 28	59-024	17	295247-47	6190714-22
17	18	137 33 19	141-795	18	29874-35	6190672-02
18	19	152 42 24	1075-069	19	29874-35	6188717-04
19	20	158 49 33	54-71	20	298969-30	6188711-93
20	21	173 54 39	12-954	21	299704-68	6188699-05
21	22	183 45 36	419-760	22	298943-15	6188280-20

PERIMETER CORNERS - AREA No 3

FROM	TO	BRG	DIST	CNR	MGA 56 - E	MGA 56 - N
137	138	231 127-69	283127-69	137	295007-71	6182002-08
138	139	351 07 23	740-000	138	297840-44	6182304-96
139	140	12 16 53	28-530	139	298470-10	6182331-18
140	141	356 21 55	99-930	140	294840-77	6182382-65
141	142	47 55 00	5-528	141	294840-77	6182482-38
142	143	98 54 39	174-925	142	295024-90	6182524-09
143	144	98 54 37	45-432	143	295024-90	6182465-51
144	145	8 54 37	10-061	144	295067-79	6182458-47
145	146	98 00 32	121-104	145	295071-35	6182465-11
146	147	111 06 44	59-434	146	295101-48	6182452-81
147	148	74 46 07	33-138	147	295237-81	6182431-40
148	149	98 04 19	366-069	148	295269-79	6182440-11
149	150	100 19 01	61-171	149	29532-62	6182386-66
150	151	97 05 03	102-110	150	295394-15	6182371-76
151	152	97 49 22	94-018	151	295796-09	6182364-76
152	153	98 41 22	85-068	152	295988-30	6182338-39
153	154	106 16 72	88-568	153	296072-38	6182325-50
154	155	114 12 52	129-252	154	296198-87	6182317-30
155	156	114 12 24	61-305	155	296254-79	6182294-55
156	157	110 14 26	54-465	156	296305-89	6182270-70
157	158	106 16 72	88-568	157	296390-91	6182255-50
158	159	89 00 22	36-353	158	296422-24	6182244-48
159	160	71 53 52	59-491	159	296478-84	6182247-48
160	161	72 07 17	0-847	160	296478-84	6182247-74
161	162	87 00 13	57-882	161	296478-84	6182237-28
162	163	97 29 02	91-586	162	296492-77	6182231-98
163	164	103 07 52	133-319	163	296492-77	6182228-47
164	165	103 07 52	133-319	164	297282-21	6182218-25
165	166	98 15 11	164-910	165	297282-21	6182214-67
166	167	92 27 53	78-971	166	297523-71	6182151-27
167	168	90 10 42	64-866	167	297588-58	6182151-07
168	169	101 59 42	133-349	168	297719-06	6182123-99
169	170	117 01 13	68-569	169	297780-15	6182032-19
170	171	94 03 35	156-621	170	297966-28	6182038-68
171	172	68 04 54	18-347	171	297966-28	6182085-84
172	173	218 45 13	39-013	172	297558-90	6182095-42
173	174	218 45 13	39-013	173	297770-90	6182074-32
174	175	297 21 13	68-569	174	297710-00	6182105-93
175	176	281 59 41	122-732	175	297589-05	6182131-33
176	177	270 10 42	64-867	176	297525-06	6182131-59
177	178	264 38 23	41-897	177	297483-37	6182127-62
178	179	270 22 42	274-799	178	297211-50	6182167-66
179	180	288 45 47	68-508	179	297146-63	6182189-70
180	181	286 02 02	166-876	180	296985-68	6182228-35
181	182	272 29 02	88-454	181	296903-15	6182248-26
182	183	267 00 12	157-802	182	296745-48	6182240-00
183	184	263 49 30	153-367	183	296730-20	6182238-35
184	185	257 16 08	45-391	184	296689-93	6182228-35
185	186	252 03 18	140-205	185	296593-42	6182216-80
186	187	249 08 23	140-205	186	296385-23	6182176-58
187	188	246 16 32	88-568	187	296300-21	6182201-40
188	189	240 14 26	57-261	188	296246-49	6182221-21
189	190	234 15 37	46-626	189	296191-40	6182224-65
190	191	230 57 43	135-609	190	296072-73	6182206-71
191	192	230 07 57	37-363	191	296037-65	6182311-57
192	193	225 10 04	46-960	192	295992-33	6182323-85
193	194	219 03 52	64-626	193	295932-36	6182312-33
194	195	216 56 42	120-660	194	295211-70	6182417-25
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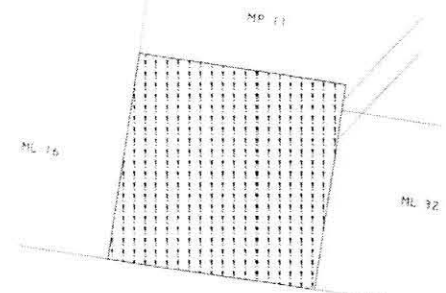


DIAGRAM B
DIAGRAM NOT TO SCALE

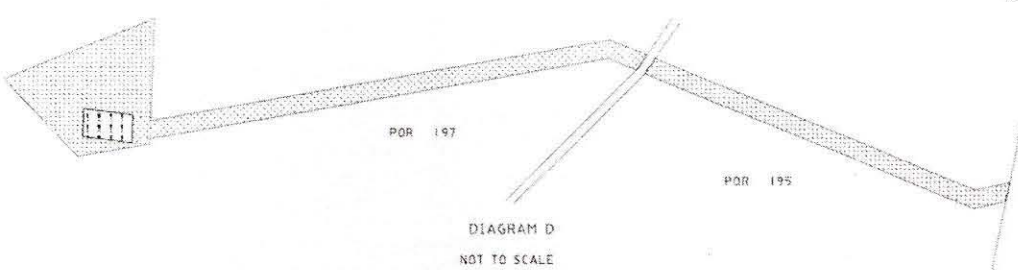


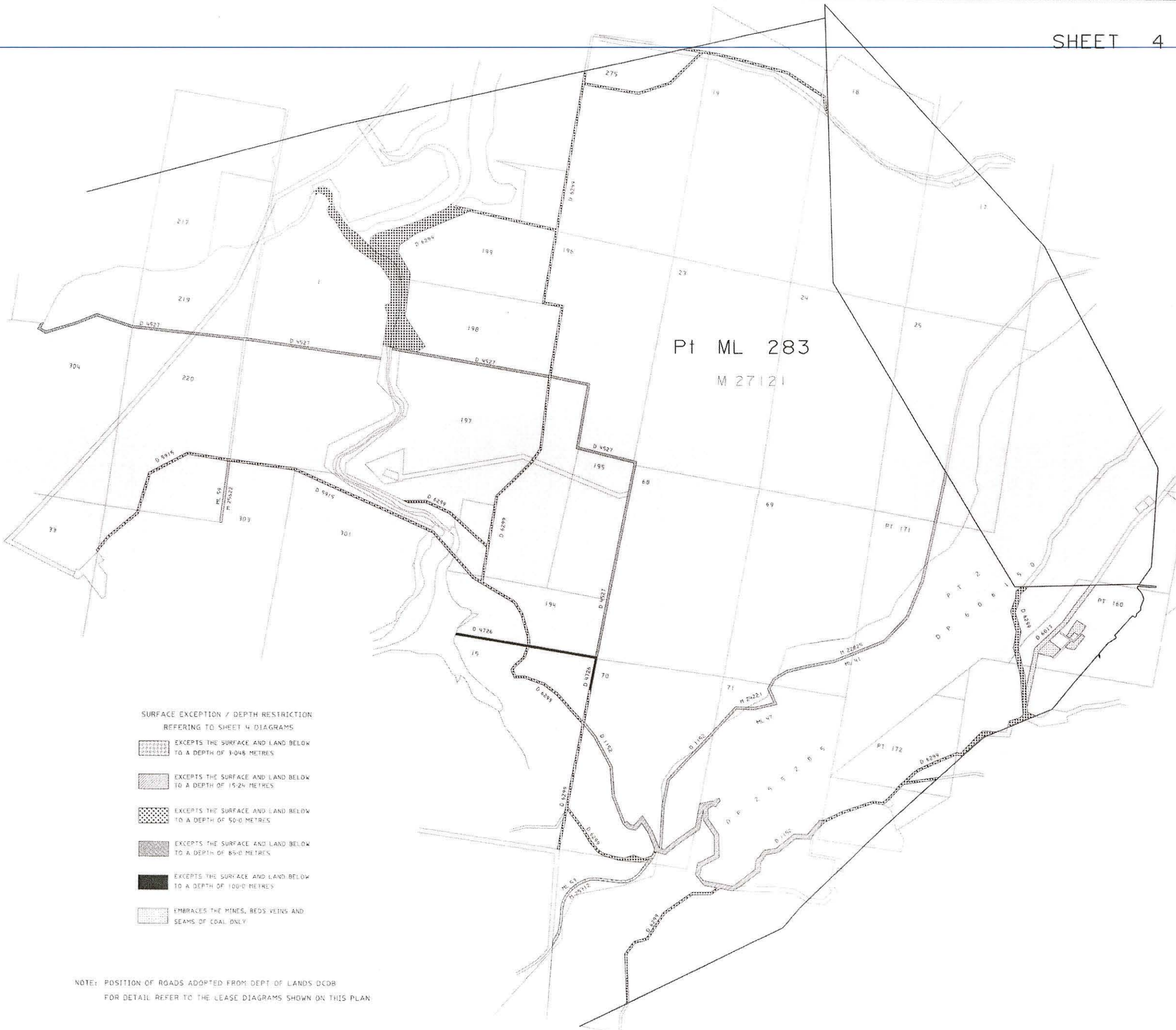
DIAGRAM D
NOT TO SCALE



DIAGRAM E
NOT TO SCALE







SEE SCHEDULE PERIMETER CORNERS - DIAGRAM 'A'

29	30	247 20 36	315-689	29	298514-40	6187653-86
30	31	228 10 18	584-396	30	298223-08	6187592-26
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38	39	281 50 38	8-960	38	296286-45	6185317-06
39	40	280 57 08	88-489	39	296195-57	6185373-85
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41	42	238 49 38	47-563	41	296057-74	6185359-22
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44	45	197 05 28	140-732	44	294086-17	6184130-26
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49	50	187 40 52	647-748	49	293461-77	6184940-07
50	51	275 06 59	142-853	50	293374-93	6184940-07
51	52	203 20 52	240-914	51	292877-96	6184185-45
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67	68	279 24 40	515-799	67	291291-67	6182354-75
68	69	280 25 37	345-788	68	292051-59	



PT ML 283
M 27121

**SURFACE EXCEPTION / DEPTH RESTRICTION
REFERING TO SHEET 4 DIAGRAMS**

-  EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 3-048 METRES
-  EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 15-24 METRES
-  EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 50-0 METRES
-  EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 85-0 METRES
-  EXCEPTS THE SURFACE AND LAND BELOW TO A DEPTH OF 100-0 METRES
-  EMBRACES THE MINES, BEDS VEINS AND SEAMS OF COAL ONLY

NOTE: POSITION OF ROADS ADOPTED FROM DEPT OF LANDS DCDB
FOR DETAIL REFER TO THE LEASE DIAGRAMS SHOWN ON THIS PLAN

PLAN OF PORTION	ML 283 (ADOPTED)
PARISH DENDRORUM KIMBLA WONGAWILLI BANKSIA CALDERWOOD	
COUNTY CAMDEN	
MAP SHEET No. 9024-2-S 9024-3-S & 9028-4-N	
REDUCTION RATIO - NOT TO SCALE	
PART TRANSFER CCL768 (ACT 1979)	
MINING DIVISION SYDNEY	
TRANSFEREE GUJARAT NRE PCL PTY LTD	
APPLICATION DATE:	
MINING LEASE No: 1596 (ACT 1992)	
STATUS:	
METHOD UNDERGROUND	
SURFACE EXCEPTION / DEPTH RESTRICTION	
VARIUS RESTRICTIONS APPLY - SEE SHEETS FOR DETAILS	
NOTES: MINING RIGHTS VIDE D7027 APPLY TO AREAS WITHIN THIS LEASE D7027 TO BE READ IN CONJUNCTION WITH THIS PLAN	
Remarks: SEE SHEET 1	
Plans used in the course of this survey/compilation:	
Survey declared on this plan for lines:	
I, Andrew A. Nesbitt of SOUTHERN CROSS CONSULTING SURVEYORS a Land and Mining Surveyor registered under the Surveying Act 2002, hereby certify that the survey/compilation represented in this plan is accurate and has been completed in accordance with the Surveying Regulation 2006 and the Surveyor General's Direction for Mining Surveys and was completed on 25 October 2007. Signature: <i>Andrew Nesbitt</i>	
Surveyors Reference: 21152 DW60004K	
Survey Dates	12-12-07
Plan Investigated	12-12-07
Plan Approved	12-12-07
Page No	07 - 7399

M 27121

MINING LEASE CONDITIONS 2010

Content

Definition

1. Notice to Landholders
2. Environmental Harm
3. Mining Operations Plan
4. Environment Management Report
5. Environmental Incident Report
6. Additional Environmental Reports
7. Rehabilitation
8. Subsidence Management
9. Working Requirement
10. Blasting
11. Safety
12. Prevention of Soil Erosion and Pollution
13. Transmission lines, Communication lines and Pipelines
14. Roads and Tracks
15. Trees and Vegetation
17. Resource Recovery
18. Indemnity
19. Security
22. Prescribed Dam
23. Suspension of Mining Operations
24. Cooperation Agreement
25. Sydney Catchment Area

Note: Exploration Reports (Geological and Geophysical)

Definition:

“Director-General” means the Director-General of the Department of Industry and Investment

MINING LEASE CONDITIONS 2010

1. Notice to Landholders

- (a) Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.
- (b) If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.

2. Environmental Harm

- (a) The lease holder must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of any activities under this lease.
- (b) For the purposes of this condition:
 - (i) environment means components of the earth, including:
 - (A) land, air and water, and
 - (B) any layer of the atmosphere, and
 - (C) any organic or inorganic matter and any living organism, and
 - (D) human-made or modified structures and areas,and includes interacting natural ecosystems that include components referred to in paragraphs (A)–(C).
 - (ii) harm to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution, contributes to the extinction or degradation of any threatened species, populations or ecological communities and their habitats and causes impacts to places, objects and features of significance to Aboriginal people.

3. Mining Operations Plan

- (a) Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General.
- (b) The MOP must:
- (i) identify areas that will be disturbed by mining operations;
 - (ii) detail the staging of specific mining operations;
 - (iii) identify how the mine will be managed to allow mine closure;
 - (iv) identify how mining operations will be carried out in order to prevent and or minimise harm to the environment;
 - (v) reflect the conditions of approval under:
 - the *Environmental Planning and Assessment Act 1979*
 - the *Protection of the Environment Operations Act 1997*
 - and any other approvals relevant to the development including the conditions of this lease; and
 - have regard to any relevant guidelines adopted by the Director-General.
- (c) The leaseholder may apply to the Director-General to amend an approved MOP at any time.
- (d) It is not a breach of this condition if:
- (i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the *Mining Act 1992*, the *Environmental Planning and Assessment Act 1979*, *Protection of the Environment Operations Act 1997*, *Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002* and *Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006* or the *Occupational Health and Safety Act 2000*; and
 - (ii) the Director-General had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out.
- (e) A MOP ceases to have effect 7 years after date of approval or other such period as identified by the Director-General.

4. Environment Management Report

- (a) The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director-General.
- (b) The EMR must:
 - (i) report against compliance with the MOP;
 - (ii) report on progress in respect of rehabilitation completion criteria;
 - (iii) report on the extent of compliance with regulatory requirements; and
 - (iv) have regard to any relevant guidelines adopted by the Director-General;

5. Environmental Incident Report

- (a) The lease holder must report any environmental incidents. The report must:
 - (i) be prepared according to any relevant Departmental guidelines;
 - (ii) be submitted within 24 hours of the environmental incident occurring;
- (b) For the purposes of this condition, environmental incident includes:
 - (i) any incident causing or threatening material harm to the environment
 - (ii) any breach of Conditions 1 to 9 and 11 to 24;
 - (iii) any breach of environment protection legislation; or,
 - (iv) a serious complaint from landholders or the public.
- (c) For the purposes of this condition, harm to the environment is material if:
 - (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
 - (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, where loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

6. Additional Environmental Reports

Additional environmental reports may be required from time to time as directed in writing by the Director-General and must be lodged as instructed.

7. Rehabilitation

Any disturbance as a result of activities under this lease must be rehabilitated to the satisfaction of the Director-General.

8. Subsidence Management

- (a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.
- (b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gateroads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17)
- (c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the *Coal Mine Health & Safety Act 2002*, or the document New Subsidence Management Plan Approval Process – Transitional Provisions (EDP09).
- (d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.
- (e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 3 and will be subject to the Environmental Management Report process as set out under Condition 4. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.

9. Working Requirement

The lease holder must:

- (a) ensure that at least **443** competent people are efficiently employed in relation to the mining process or mining operations on the lease area

OR

Mining Lease Conditions 2010	Version Date: November 2010
Mining Lease No. 1596 (Act 1992)	Page 6 of 12

(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than **\$7,752,500** per annum whilst the lease is in force. The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.

10. Blasting

(a) Ground Vibration

The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.

(b) Blast Overpressure

The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment, Climate Change and Water.

11. Safety

Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be notified in writing to the Department and filled in or otherwise rendered safe to a standard acceptable to the Director-General.

12. Prevention of soil erosion and pollution

Prospecting operations must be carried out in a manner that does not cause or aggravate air pollution, water (including groundwater) pollution, soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan.

13. Transmission lines, Communication lines and Pipelines

Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions stipulated.

14. Roads and Tracks

- (a) The lease holder must pay to the relevant roads authority in control of the road or track the reasonable costs incurred by the roads authority in making good any damage to roads or tracks caused by operations carried out under this lease less any amount paid or payable from the Mine Subsidence Compensation Fund.
- (b) During wet weather the use of any road or track must be restricted so as to prevent damage to the road or track.
- (c) Existing access tracks should be used for all operations where reasonably practicable. New access tracks must be kept to a minimum and be positioned in order to minimise damage to the land, watercourses or vegetation.
- (d) Temporary access tracks must be rehabilitated and revegetated to the satisfaction of the Director-General as soon as reasonably practicable after they are no longer required under this lease.

15. Trees and Vegetation

- (a) The lease holder must not fell trees, strip bark or cut timber on any land subject of this lease without the consent of the landholder who is entitled to the use of the timber.
- (b) The lease holder must contact Forests NSW and obtain any required permit, licence or approval before taking timber from any Crown land within the lease area.

Note: Any clearing not authorised under the Act must comply with the requirements of the Native Vegetation Act 2003. Any clearing or taking of timber on Crown land is subject to the requirements of the Forestry Act 1916.

17. Resource Recovery

- (a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, notice in writing to the lease holder may be given requiring the holder to recover such minerals.
- (b) The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.
- (c) The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.

18. Indemnity

The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.

19. Security

A security in the sum of **\$40,000,000** must be given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under this lease.

22. Prescribed Dam

- (a) Notwithstanding any Mining Operations Plan, the lease holder must not mine within any part of the lease area which is within the notification area of the **Upper Cordeaux No 2 Dam and Avon Dam** without the prior written approval of the Minister and subject to any conditions stipulated.
- (b) Where the lease holder desires to mine within the notification area he or she must:
- (i) at least twelve (12) months before mining is to commence or such lesser time as the Minister may permit, notify the Minister of the desire to do so. A plan of the mining system to be implemented must accompany the notice; and
 - (ii) provide such information as the Minister may direct.
- (c) The Minister must not, except in the circumstances set out in sub-paragraph (ii), grant approval unless sub-paragraph (i) of this paragraph has been complied with. This sub-paragraph is complied with if:
- (i) the Dams Safety Committee as constituted by Section 7 of *the Dams Safety Act 1978* and the owner of the dam have been notified in writing of the desire to mine referred to in paragraph (b).
 - (ii) the notifications referred to in clause (a) are accompanied by a description or plan of the area to be mined.
 - (iii) the Director-General has complied with any reasonable request made by the Dams Safety Committee or the owner of the dam for further information in connection with the mining proposal.
 - (iv) the Dams Safety Committee has made its recommendations concerning the mining proposal or has informed the Minister in writing that it does not propose to make any such recommendations; and
 - (v) where the Dams Safety Committee has made recommendations the approval is in terms that are:
 - in accordance with those recommendations; or

- where the Minister does not accept those recommendations or any of them - in accordance with a determination under subparagraph (ii) of this paragraph.

(vi) Where the Minister does not accept the recommendations of the Dams Safety Committee or where the Dams Safety Committee has failed to make any recommendations and has not informed the Minister in writing that it does not propose to make any recommendations, the approval shall be in terms that are, in relation to matters dealing with the safety of the dam:

- as determined by agreement between the Minister and the Minister administering the *Dams Safety Act 1978*; or
- in the event of failure to reach such agreement - as determined by the Premier.

(d) The Minister, on notice from the Dams Safety Committee, may at any time or times:

- (i) cancel any approval given where a notice pursuant to Section 18 of the *Dams Safety Act 1978* is given.
- (ii) suspend for a period of time, alter, omit from or add to any approval given or conditions imposed.

23. Suspension of Mining Operations

The holder of a mining lease may not suspend mining operations in the mining area other than in accordance with the consent of the Minister.

24. Cooperation Agreement

The lease holder must make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as:

- access arrangements
- operational interaction procedures
- dispute resolution
- information exchange
- well location

- timing of drilling
- potential resource extraction conflicts and
- rehabilitation issues.

25. Sydney Catchment Area

- (a) The lease holder must carry out mining operations in such a manner as to conform strictly to all the provisions of the Sydney Water Catchment Management Act 1998 and regulations made under this Act as replaced or amended from time to time applying to the protection of catchment areas within the Sydney drinking water inner catchment area (**Upper Nepean River Catchment Area and Metropolitan Special Area**).
- (b) The lease holder must have been granted a current consent by the Sydney Catchment Authority under the Sydney Water Catchment Management Regulation 2008 prior to entering or undertaking any mining operations in the **Upper Nepean River Catchment Area and Metropolitan Special Area**.
- (c) The lease holder must enter into and hold a current agreement or agreements with the Sydney Catchment Authority whilst undertaking mining operations within the **Upper Nepean River Catchment Area and Metropolitan Special Area** that addresses but is not limited to the following:
- (i) Compensation
 - (ii) Land holder consent
 - (iii) Protection of SCA assets and infrastructure
 - (iv) Indemnity for loss and damage
 - (v) Protection of the surface of catchment area
 - (vi) Giving and maintaining of security
-

Note: Exploration Reports (Geological and Geophysical)

The lease holder must lodge reports to the satisfaction of the Director-General in accordance with section 163C of the Mining Act 1992 and in accordance with clause 57 of the Mining Regulation 2010.

Reports must be prepared in accordance with Exploration Reporting: A guide for reporting on exploration and prospecting in New South Wales (Department of Industry and Investment, 2010).

Mining Lease Conditions 2010	Version Date: November 2010
Mining Lease No. 1596 (Act 1992)	Page 13 of 13



Site	Wongawilli Colliery	DOC ID	WWC EC PLN 012
Type	Plan	Date Published	1 August 2022
Doc Title	REHABILITATION MANAGEMENT PLAN		

Appendix A4 – Consolidated Coal lease CCL 766

INSTRUMENT OF RENEWAL

LEASE: Consolidated Coal Lease No. 766 (Act 1973)

HOLDER: HTT Huntley Heritage Pty Ltd (A. C. N. 086 238 682)

DATE OF LEASE: 16 September 1991

EXPIRY DATE OF LEASE: 9 October 2000

PERIOD OF RENEWAL UNTIL: 9 October 2015

AREA: 514 hectares as depicted on the Diagram No. D6969, in the Department of Primary Industries, Mineral Resources.

DEPTH RESTRICTION: Embraces the surface and the land below thereof to various depths

SURFACE EXCEPTION: Excludes the surface and the land below thereof to various depths

MINERALS: coal.

ROYALTY PAYABLE: As Prescribed

AMENDMENTS TO THE CONDITIONS OF THE LEASE:

- (a) All the Conditions contained in the lease prior to the renewal have been deleted.
- (b) The lease is now subject to the attached Mining Lease Conditions 2004 numbered: 1 to 21 (inclusive), 23, 24, 25, 29, 30, 31 and 32.

Conditions No's 2, 3, 4 and 13 to 21 (inclusive) are identified as conditions relating to environmental management for the purposes of Section 125 (3) and 374 A of the Mining Act, 1992

We, HTT Huntley Heritage Pty Ltd (A. C. N. 086 238 682), hereby accept the renewal of this Lease and agree to be bound by the conditions specified.

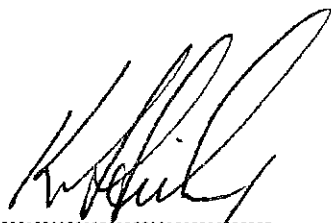


.....
HTT Huntley Heritage Pty Ltd
(A. C. N. 086 238 682)



.....
WITNESS

Renewed this 27th day of June 2005



.....
Kerry Hickey
Minister for Mineral Resources

MINING LEASE CONDITIONS 2004

Notice to Landholders

1. Within a period of three months from the date of renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.

If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this lease has been renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.

Mining, Rehabilitation, Environmental Management Process (MREMP)

Mining Operations Plan (MOP)

2. (1) Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:-
 - (a) ongoing mining operations and environmental management; and
 - (b) ongoing monitoring of the project.
- (2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.
- (3) A Plan must be lodged with the Director-General:-
 - (a) prior to the commencement of mining operations (including mining purposes);
 - (b) subsequently as appropriate prior to the expiry of any current Plan; and
 - (c) in accordance with any direction issued by the Director-General.
- (4) The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:-
 - (a) area(s) proposed to be disturbed under the Plan;
 - (b) mining and rehabilitation method(s) to be used and their sequence;
 - (c) areas to be used for disposal of tailings/waste;
 - (d) existing and proposed surface infrastructure;
 - (e) existing flora and fauna on the site;

- (f) progressive rehabilitation schedules;
 - (g) areas of particular environmental, ecological and cultural sensitivity and measures to protect these areas;
 - (h) water management systems (including erosion and sediment controls);
 - (i) proposed resource recovery; and
 - (j) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.
- (5) The Plan when lodged will be reviewed by the Department.
 - (6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.
 - (7) If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation of the Plan.
 - (8) During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.

Annual Environmental Management Report (AEMR)

- 3. (1) Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General.
- (2) The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:
 - (a) the accepted Mining Operations Plan;
 - (b) development consent requirements and conditions;
 - (c) Department of Environment and Conservation and Department of Infrastructure, Planning and Natural Resources licences and approvals;
 - (d) any other statutory environmental requirements;
 - (e) details of any variations to environmental approvals applicable to the lease area; and
 - (f) where relevant, progress towards final rehabilitation objectives.

- (3) After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.
- (4) The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.

Subsidence Management

- 4. (a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.
- (b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gateroads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the *Guideline for Applications for Subsidence Management Approvals*.
- (c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the *Coal Mines Regulation Act 1982*, or the document *New Subsidence Management Plan Approval Process – Transitional Provisions*.
- (d) Subsidence Management Plans are to be prepared in accordance with the *Guideline for Applications for Subsidence Management Approvals*.
- (e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document *New Approval Process for Management of Coal Mining Subsidence - Policy*.

Working Requirement

- 5. The lease holder must:
 - (a) ensure that at least **21** competent people are efficiently employed on the lease area on each week day except Saturday or any week day that is a public holiday,
 - OR
 - (b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than **\$367,500.00** per annum whilst the lease is in force.

The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.

Control of Operations

6. (a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-
- (i) cease working the lease; or
 - (ii) cease that part of the operation not complying with the Act or conditions;
- until in the opinion of the Environmental Officer the situation is rectified.
- (b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.
- (c) A direction referred to in this condition may be served on the Mine Manager.

Reports

7. The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:
- (a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;
 - (b) Details of expenditure incurred in conducting that exploration;
 - (c) A summary of all geological findings acquired through mining or development evaluation activities;
 - (d) Particulars of exploration proposed to be conducted in the next twelve months period;
 - (e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.

Licence to Use Reports

8. (a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.
- (b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.

Confidentiality

9. (a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where:
- (i) the lease holder has agreed that specified reports may be made non-confidential.
 - (ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.
- (b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.
- (c) The Director-General may extend the period of confidentiality.

Terms of the non-exclusive licence

10. The terms of the non-exclusive copyright licence granted under condition 8 (a) are:
- (a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.
 - (b) the Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.
 - (c) the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.
 - (d) there is no royalty payable by the Minister for the licence.
 - (e) if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months notice.

Blasting

- 11 (a) Ground Vibration

The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Conservation.

(b) Blast Overpressure

The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Conservation.

Safety

12. Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.

Rehabilitation

13. (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:-
- there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion.
 - the state of the land is compatible with the surrounding land and land use requirements.
 - the landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land.
 - 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.
 - the land does not pose a threat to public safety.
- (b) Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General.
14. The lease holder must comply with any direction given by the Director-General regarding the stabilisation and revegetation of any mine residues, tailings or overburden dumps situated on the lease area.

Exploratory Drilling

15. (1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Infrastructure, Planning and Natural Resources regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.
- (2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-
- (a) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;
 - (b) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;
 - (c) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters;
 - (d) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;
 - (e) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.
 - (f) once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.
 - (g) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.

Prevention of Soil Erosion and Pollution

16. 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 Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.

Transmission lines, Communication lines and Pipelines

17. Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.

Fences, Gates

18. (a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.

- (b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.

Roads and Tracks

- 19. (a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate.
 - (b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.
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 Infrastructure, Planning and Natural Resources.

Trees and Timber

- 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 attaches 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 vegetative 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 of 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.

Resource Recovery

- 23. (a) Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.

- (b) The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.
- (c) The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.
- (d) The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.
- (e) The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.
- (f) After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.

Indemnity

24. The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.

Security Deposit

25. (a) A security in the sum of **\$55,000.00** must be given and maintained with the Minister by the lease holder for the purpose of 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 regulations made thereunder.
- (b) The lease holder must provide the security required by sub-clause (a) in one of the following forms:
- (i) cash,
 - (ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.

Details Of Lands, Purposes and Additional Conditions

29. The lease holder shall be limited to the following operations and conditions within the specified areas described on the plan annexed hereto and marked "B".

COLUMN 1	COLUMN 2	COLUMN 3
Lands shown with stippling and numbered 1 on the plan annexed hereto and marked "B".	Construction, maintenance or use (in or in connection with mining operations) of any building, mining plant, road or shaft. The storage of fuel, machinery, timber or equipment for use in or in connection with mining operations. The generation and transmission of electricity for use in or in connection with mining operations	NIL.
Lands shown with stippling and numbered 2 on the plan annexed hereto and marked "B".	The construction, maintenance or use (in or in connection with mining operations) of any building or mining plant. The storage of fuel, machinery, timber or equipment for use in or in connection with mining operations.	30 (a).
Lands shown with stippling and numbered 3 on the plan annexed hereto and marked "B".	Construction, maintenance or use (in or in connection with mining operations) of any road.	30 (b) and (c)
Lands shown with stippling and numbered 4 on the plan annexed hereto and marked "B".	Construction, maintenance or use (in or in connection with mining operations) of any road.	30 (d)

30. With regard to Condition No. 29 and the plan annexed hereto and marked "B":-

- (a) unless with the consent of the Minister, the lease holder shall not erect or use on the area demised any coal preparation plant or process for the purpose of washing coal or extracting or refining or otherwise treating any oil or other derivative from coal or shale.
- (b)
 - (i) in the event of fences being erected along the boundaries of the area, the lease holder shall provide and erect suitable gates which will provide access along the area.
 - (ii) The gates and approaches thereto shall be maintained in good order and condition to the satisfaction of the Minister.
- (c) In the event of any of the fences within the area being cut in connection with the works hereby authorised, the lease holder shall provide and install suitable motor ramps to the satisfaction of the owner or the Minister.
- (d) If directed so to do by the Minister and subject to such conditions as he considers necessary, the lease holder shall allow free and uninterrupted access along the lane traversing the area.

Sydney Catchment Authority Catchment Area

31. (a) The lease holder shall carry out operations in such a way as to conform strictly to all provisions of the Sydney Water Catchment Management Act 1998 and the regulations thereunder applying to the prevention of pollution of the **Metropolitan Special Area** or the preservation of the purity of the water supply provided thereby or derived therefrom or for the protection of the property of Sydney Catchment Authority [hereinafter referred to as the 'the Authority'] on the Special Area and also to all requirements of the Authority from time to time under the said Act or any of the regulations for the time being in force.
- (b) If the lease holder shall at any time be using or about to use any process which in the opinion of the Authority is likely to pollute the Special Area or the water supply or to endanger any property of the Authority on the Special Area the lease holder upon service of a notice in writing under the hand of the Minister to do so shall:
- (i) discontinue the use of such process immediately, or
- (ii) thereafter refrain from adopting such process at any time, as the case may require.
- (c) The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent the contamination, pollution, erosion or siltation of any stream or watercourse or Special Area and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution or siltation of any stream watercourse or Special Area.
- (d) The lease holder hereby covenants with Us Ours Heirs and Successors and as a separate covenant the lease holder hereby covenants with the Authority and its Successors that the lease holder shall at all times hereafter save harmless and keep Us and the said Authority and Our Heirs and Successors and the Successors of the said Authority indemnified from payment of compensation and from and against all actions proceedings claims and demands in respect of any injury loss of damage arising out of or in any way connected with any interference with or deprivation or loss of access to the land and premises of this authority which may occur by reason of any works or operations undertaken or carried out by the said Authority or arising out of or in any way connected with any discontinuance or alteration of any process consequent upon the service of a notice in pursuance of the provisions of Condition 31(b) or arising out of or in any way connected with the operation of any regulations relating to Special Areas in force at the date hereof or made by the said Authority at any time hereafter and the lease holder hereby agrees that for the purpose of this condition the said Authority shall be deemed to be a party to this authority.
32. The lease holder shall:
- (a) Make such provisions for sanitation as may be directed by the Authority and shall at all times observe and perform any requirements of the said Authority respecting sanitation.
- (b) not establish any camps or habitations within any area under the control of the Authority unless with the consent of the Authority.

- (c) Not sink any drillhole within the stored waters on the subject area nor within **40** metres of the top water level thereof unless with the consent of the Authority.
- (d) Not sink any drillhole within any watercourse on the **Metropolitan Special Area** nor within **100** metres thereof unless with the consent of the Authority.
- (e) Not interfere with or impede the use of the Authority tracks or endanger their stability in any way by reason of the operations.
- (f) Not construct any road to the sites of any drillholes unless with the consent of the Authority to the proposed route and type of road construction.
- (g) Not interfere in any way with any fences on or adjacent to the **Metropolitan Special Area** unless with the consent in writing of the owner thereof or the Authority.
- (h) Give twenty eight days notice to the General Manager, Catchment Operations and Major Projects, Sydney Catchment Authority, Penrith, of its intention to commence drilling operations.
- (i) Not cut or remove any timber except such as directly obstructs or prevents the carrying on of operations and the lease holder shall obtain the consent in writing of the Authority before making use of the timber so cut for other than in connection with operations.
- (j) Complete work in relation to rehabilitation within the **Metropolitan Special Area** before termination of the authority to the satisfaction of the Authority.



Site	Wongawilli Colliery	DOC ID	WWC EC PLN 012
Type	Plan	Date Published	1 August 2022
Doc Title	REHABILITATION MANAGEMENT PLAN		

APPENDIX B



Site	Wongawilli Colliery	DOC ID	WWC EC PLN 012
Type	Plan	Date Published	1 August 2022
Doc Title	REHABILITATION MANAGEMENT PLAN		

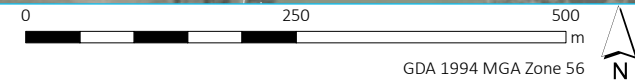
Appendix B.1 – Plan 1: Final Landform Features

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- KEY**
- MINERALS - CURRENT TITLES
 - Final land use domain
 - Heritage area
 - Infrastructure
 - Native ecosystem
 - Water management areas
 - Existing environment
 - Minor road
 - Vehicular track

Source: EMM (2022); WCL (2022); Metromap (2022); DFSI (2017)



Final landform features

Wongawilli Colliery
Rehabilitation Management Plan
Plan 1

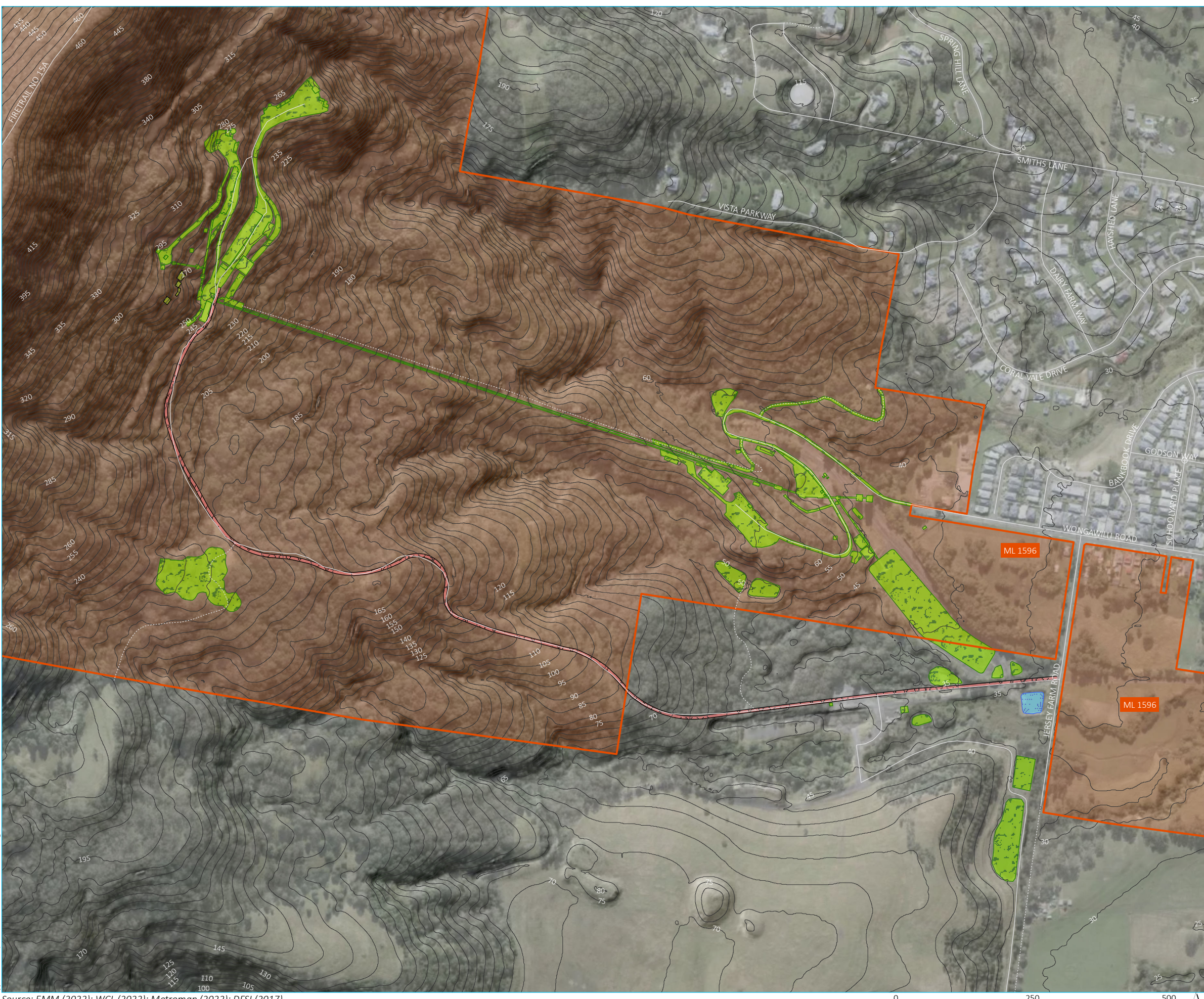




Site	Wongawilli Colliery	DOC ID	WWC EC PLN 012
Type	Plan	Date Published	1 August 2022
Doc Title	REHABILITATION MANAGEMENT PLAN		

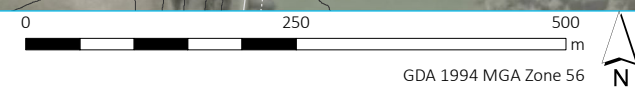
Appendix B.2 – Plan 2: Final Landform Contours

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- KEY**
- MINERALS - CURRENT TITLES
 - Topographic contour (5 m interval)
 - Final land use domain
 - Heritage area
 - Infrastructure
 - Native ecosystem
 - Water management areas
 - Existing environment
 - Minor road
 - Vehicular track

Source: EMM (2022); WCL (2022); Metromap (2022); DFSI (2017)



Final landform contours

Wongawilli Colliery
Rehabilitation Management Plan
Plan 2



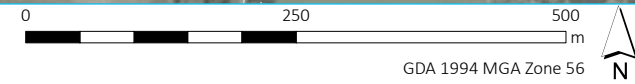
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- KEY**
- MINERALS - CURRENT TITLES
 - Mining domain
 - Existing environment
 - Minor road
 - Vehicular track

Note: no rehabilitation will be undertaken due to the C&M status of the mine

Source: EMM (2022); WCL (2022); Metromap (2022); DFSI (2017)



GDA 1994 MGA Zone 56

Mining and Rehabilitation - Year 1

Wongawilli Colliery
Rehabilitation Management Plan
Plan 2A



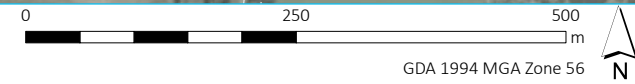
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- KEY**
- MINERALS - CURRENT TITLES
 - Mining domain
 - Existing environment
 - Minor road
 - Vehicular track

Note: no rehabilitation will be undertaken due to the C&M status of the mine

Source: EMM (2022); WCL (2022); Metromap (2022); DFSI (2017)



GDA 1994 MGA Zone 56

Mining and Rehabilitation - Year 2

Wongawilli Colliery
Rehabilitation Management Plan
Plan 2B



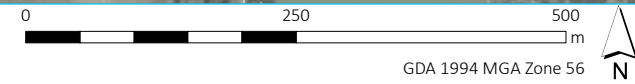
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- KEY**
- MINERALS - CURRENT TITLES
 - Mining domain
 - Existing environment
 - Minor road
 - Vehicular track

Note: no rehabilitation will be undertaken due to the C&M status of the mine

Source: EMM (2022); WCL (2022); Metromap (2022); DFSI (2017)



Mining and Rehabilitation - Year 3

Wongawilli Colliery
Rehabilitation Management Plan
Plan 2C

