



MOOLARBEN COAL COMPLEX ANNUAL REVIEW 2016

Document	Version	Issue	Author	Approved
ENV_RPT_ANNUAL REVIEW 2016	1	Mar 2017	MCO	GC

Name of operation	Moolarben Coal Complex
Name of operator	Moolarben Coal Operations Pty Ltd
Development consent / project approval #	05_0117 and 08_0135
Name of holder of development consent / project approval	Moolarben Coal Mines Pty Limited
Mining lease #	ML 1605, 1606, 1628, 1691, 1715
Name of holder of mining lease	Moolarben Coal Mines Pty Limited
Water licence #	Refer Table 4
Name of holder of water licence	Moolarben Coal Operations Pty Ltd
MOP/RMP start date	1 January 2016
MOP/RMP end date	31 December 2016
Annual Review start date	01 January 2016
Annual Review end date	31 December 2016
<p>I, Graham Chase, certify that this audit report is a true and accurate record of the compliance status of Moolarben Coal Complex for the period January 1st 2016 to December 31 2016 and that I am authorised to make this statement on behalf of Moolarben Coal Operations.</p> <p><i>Note.</i></p> <p>a) <i>The Annual Review is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p>b) <i>The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Name of authorised reporting officer	Graham Chase
Title of authorised reporting officer	Environment and Community Manager
Signature of authorised reporting officer	
Date	31 March 2017

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1.0 STATEMENT OF COMPLIANCE

A summary of compliance with relevant approval conditions for the reporting period is provided in Table 1.

Table 1: Statement of compliance

Approval	Compliance Status (Excluding Administrative Non-compliances)	Compliance Status (Including Administrative Non-compliances)
PA 05_0117	No	No
PA 08_0135	No	No
ML 1605	Yes	Yes
ML 1606	Yes	Yes
ML 1628	Yes	Yes
ML 1691	Yes	Yes
ML 1715	Yes	Yes
20BL172002	Yes	Yes
20BL173923	Yes	Yes
20BL173935	Yes	Yes

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2.0 INTRODUCTION

The Moolarben Coal Complex (MCC) is located approximately 40 kilometres north of Mudgee in the Western Coalfield of New South Wales (**Figure 1**) within the Mid-Western Regional Local Government Area (LGA.). Local relevant land ownership within the immediate vicinity of the MCC is provided in **Appendix 1**.

Moolarben Coal Operations Pty Ltd (MCO) is the operator of the Moolarben Coal Complex (MCC) on behalf of the Moolarben Joint Venture (Moolarben Coal Mines Pty Ltd [MCM], Sojitz Moolarben Resources Pty Ltd and a consortium of Korean power companies). MCO and MCM are wholly owned subsidiaries of Yancoal Australia Limited (Yancoal).

Current mining operations undertaken across MCC have approval until 31 December 2038. All mining operations are conducted in accordance with NSW Project Approval (05_0117) (Moolarben Coal Project Stage 1) as modified, and NSW Project Approval (08_0135) (Moolarben Coal Project Stage 2) as modified.

The current mining operations are undertaken in accordance with Approval Decisions (EPBC 2007/3297),(EPBC 2013/6926) and (EPBC 2008/4444) under the Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act).

Current mining operations at the MCC are conducted in accordance with the requirements of the conditions of Mining Lease (ML) 1605, ML 1606, ML 1628, ML 1691, and ML1715 granted under the *Mining Act, 1992*.

2.1 SCOPE

This Annual Review has been prepared by MCO (with input from experienced and qualified experts) to satisfy the reporting requirements of NSW Project Approval (05_0117) (as modified), NSW Project Approval (08_0135) (as modified), mining leases ML 1605, ML 1606, ML1628, ML1691 and ML1715, EPBC approvals (2007/3297, 2008/4444 and 2013/6926) and water licences. The report presents a summary of the regulatory compliance, environmental performance, and community engagement activities for MCO.

The following key agencies shall be provided with a copy of this report:

- NSW Department of Planning and Environment (DP&E);
- NSW Department of Primary Industries – Division of Water (DPI-Water);
- Commonwealth Department of the Environment (DoE);
- NSW Trade & Investment – Division of Resources & Energy (DRE);
- NSW Office of Environment and Heritage (OEH);
- NSW Environment Protection Authority (EPA);
- Mid-Western Regional Council (MWRC); and
- Members of the MCO Community Consultative Committee (CCC).

In addition, an electronic copy will be made publicly available on the Moolarben Coal website (<http://www.moolarbencoal.com.au/>) in accordance with Schedule 5, Condition 11 (a).

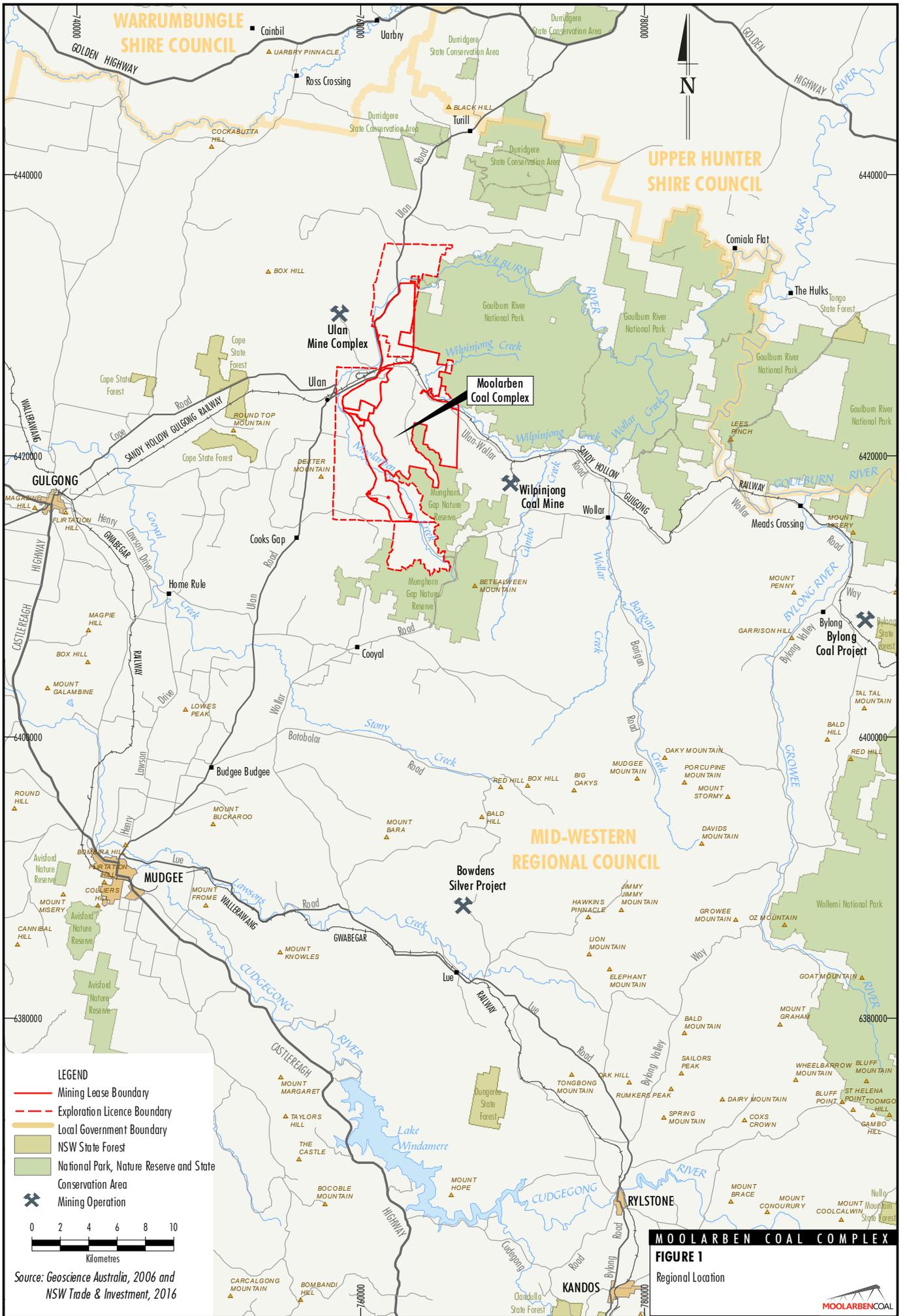
2.2 STRUCTURE OF THIS ANNUAL REVIEW

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The remainder of the Annual Review is structured as follows and is based on the *October 2015 Annual Review Guidelines – Post-approval requirements for State significant mining developments* (NSW Department of Planning and Environment):

- Section 3: Outlines the relevant statutory approvals.
- Section 4: Outlines the activities undertaken at Moolarben Coal Complex for the period and those proposed for the next period.
- Section 5: Actions required from previous Annual Review
- Section 6: Outlines environmental performance including noise, blasting, air quality, biodiversity and heritage.
- Section 7: Outlines the water management performance
- Section 8: Outlines the rehabilitation management performance
- Section 9: Outlines the community performance
- Section 10: Describes independent audit requirements
- Section 11: Provides a summary of incidents and non-compliances
- Section 12: Outlines activities to be completed in the next reporting period
- Appendices: Supporting information and monitoring data

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2.3 PROJECT DESCRIPTION

MCC comprises the Moolarben Stage 1 and Stage 2 Projects. An overview of the complex is provided in **Figure 2**. The Stage 1 and Stage 2 operations are summarised in **Table 2** below.

Stage 1 has commenced and at full development will comprise:

- the construction and operation of three open cut mines (OC1, OC2 and OC3);
- construction and operation of one longwall underground mine (UG4);
- construction and operation of a Coal Handling and Preparation Plant (CHPP);
- road and rail works – including rail loop, train load-out and closure and/or diversion of Carrs Gap Road, and Moolarben Road; and,
- Other infrastructure areas – including administration offices and workshops.

Stage 2 has commenced and at full development will comprise:

- the construction and operation of one open cut mining operation (OC4) and two underground mine operations (UG1 and UG2);
- construction and operation of the Stage 2 ROM coal facilities and conveyors and associated facilities between the Stage 2 ROM coal facilities and Stage 1 CHPP;
- extension of the use of the existing approved Stage 1 Coal Handling and Preparation Plant (CHPP) to Year 24 of Stage 2;
- development of an out-of-pit emplacement area;
- construction and operation of administration offices, workshops, supporting power and communications infrastructure and related facilities;
- Construction of a remote service infrastructure areas;
- diversions of Murragamba and Eastern Creeks;
- development of water management infrastructure; and,
- other associated minor infrastructure, plant, equipment and activities, including ancillary works, minor modifications and alterations to existing infrastructure as required.

Table 2: Moolarben Coal Complex production overview

Relevant Approval Component	Moolarben Coal Project	
	Stage 1 Project Approval (05_0117)	Stage 2 Project Approval (08_0135)
Operational Mine Life	Mining operations can be carried out until 31 December 2038.	
Hours of Operation	Mining operations can be carried out 24 hours a day, 7 days a week.	
Coal Extraction Limits	Up to 9 Mtpa of ROM coal can be extracted from the open cut mining operations in calendar years 2015 and 2016, and 8 Mtpa thereafter, from Stage 1.	Up to 12 Mtpa of ROM coal can be extracted from the open cut mining operations in any calendar year from Stage 2.
	Up to 8 Mtpa (total) of ROM coal can be extracted from the underground mining operations at the Moolarben Coal Complex in any calendar year.	
Coal Processing and Offsite Transport	Up to 13.5 Mtpa (total) of ROM coal from the Moolarben Coal Complex can be processed in the calendar year 2017, and 13 Mtpa in any calendar year thereafter from Stages 1 and 2. Not more than 9 laden trains to leave the complex per day.	
Coal Processing and Offsite Transport (Cont.)	All coal is to be transported from the Moolarben Coal Complex by rail.	All coal extracted from the site is sent to the Moolarben Stage 1 mine surface infrastructure area for processing and/or transport to market.

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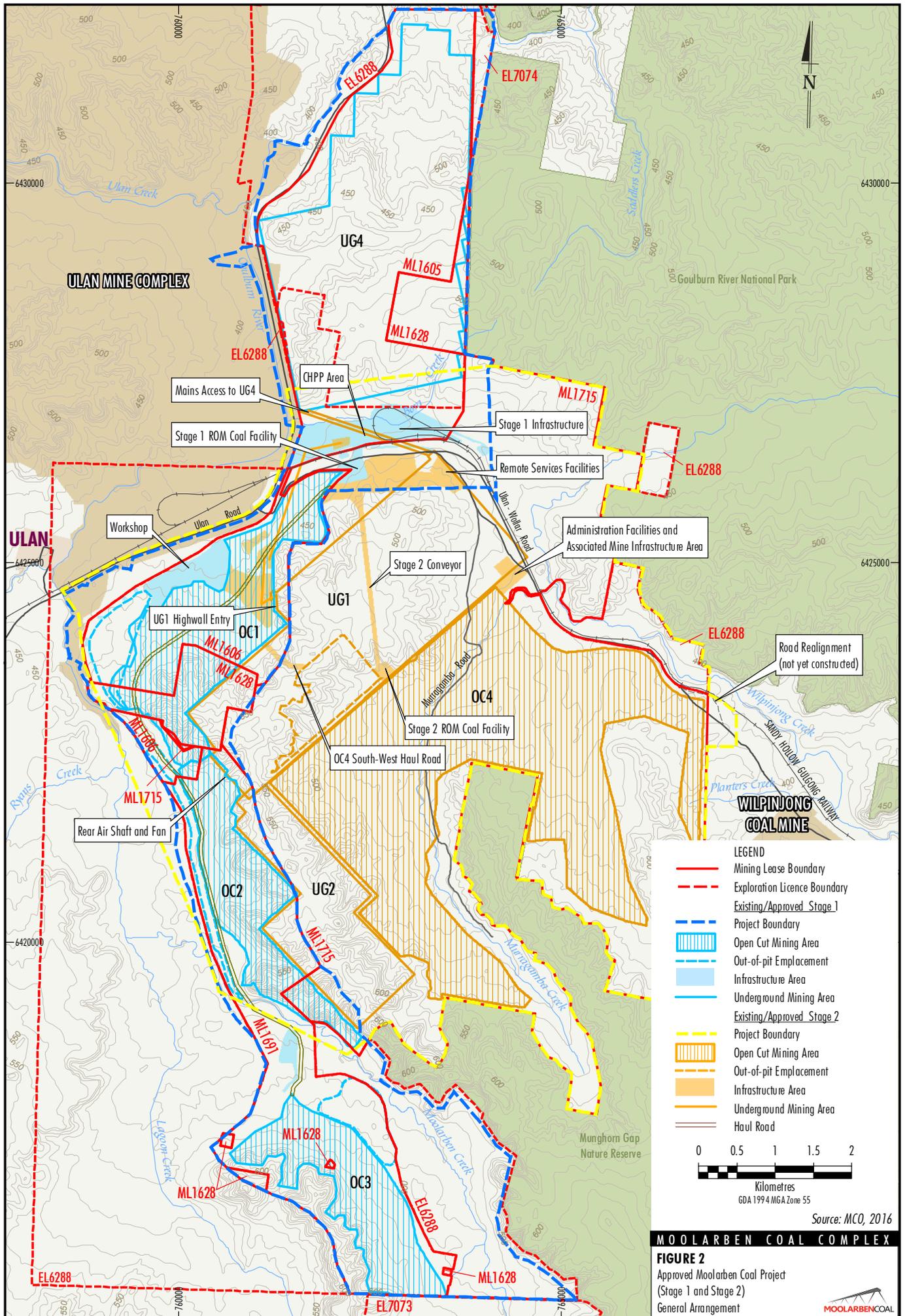
2.4 KEY MINE CONTACT PERSONNEL

The following table provides contact details for key personnel responsible for environmental management across the Moolarben Coal Complex.

Table 3 : Mine Contact Personnel

Position/Area of Responsibility	Name	Contact Number(s)	Email Address
General Manager	Steve Archinal	02 6376 1500	steve.archinal@yancoal.com.au
Environment and Community Manager	Graham Chase	02 6376 1407	graham.chase@yancoal.com.au
Senior Environment and Community Coordinator	Trent Cini	02 6376 1436	trent.cini@yancoal.com.au
Environment and Community Complaints Line	1800 556 484		
Postal Address	Locked Bag 2003, Mudgee, NSW, 2850		

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3.0 APPROVALS

3.1 SUMMARY OF APPROVALS

Project Approvals, Mining Leases, and other Licences relevant to MCO are provided in **Table 4**. Current Project Approvals, EPBC Approvals, Exploration Licences, and Mining Leases are available at www.moolarbencoal.com.au.

Table 4: Relevant Approvals, Leases and Licences

Approval	Description	Expiry Date
Project Approval – NSW Department to Planning and Environment		
05_0117	Stage 1 as modified	31 December 2038
08_0135	Stage 2 as modified	31 December 2038
Mining Lease - NSW Department of Industry –Resources & Energy		
ML1605	Underground 4,CHPP and infrastructure areas	20 December 2028
ML1606	OC1, OC2and associated infrastructure	20 December 2028
ML1628	OC1, OC2, OC3, UG1 and UG2	24 February 2030
ML1691	OC1, OC2, OC3 and UG2	23 September 2034
ML1715	OC2, OC4, UG1,UG2 and associated infrastructure	31 August 2036
Mining Operation Plan- NSW Department of Industry –Resources & Energy		
MOP	Stage 1 and Stage 2 operations	31 December 2018
Exploration Licences- NSW Department of Industry –Resources & Energy		
EL6288	Coal Exploration Licence	22 August 2017
EL7073	Coal Exploration Licence	12 February 2020
EL7074	Coal Exploration Licence	12 February 2020
Environmental Protection Licence – NSW Environment Protection Agency		
EPL12932	Licence authorising the carrying out of scheduled activities	N/A
Environment Protection and Biodiversity Conservation - Commonwealth Department of the Environment		
2007/3297	Extend the area of approved mining into land adjacent to Open Cut 1 and 2, to allow the construction and operation of additional water management infrastructure and to make minor changes to the rehabilitation sequencing and final landform.	31 December 2027
2008/4444	Stage 2 operations	31 December 2065
2013/6926	To Modify and extend the Moolarben Coal Project.	31 December 2064
Water Licences – NSW Department of Primary Industries – Water		
20BL172002	Porous Rock Aquifer Licence	26 November 2019
20BL173923	Porous Rock Aquifer Licence	25 November 2020
20BL173935	Monitoring Bore Licence	Perpetuity
WAL36340	Wollar Creek Water Source	N/A
WAL37582	Upper Goulburn River Water Source	N/A
20WA210797	Water Supply Works Approval (Water Management Act 2000)	03 September 2022

During the reporting period the following approvals were granted:

- Stage 1 Mod 12
- Stage 2Mod 2

An application to modify Project Approval (05_0117) for the temporary increase in washing limit in 2017 was submitted during the reporting period.

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3.2 ANNUAL REPORTING

Table 5 provides a checklist of Annual Reporting requirements and performance conditions along with the relevant sections within this report.

Table 5: Annual Review Requirements

Approval Type & Reference		Annual Review Section
Project Approval 05_0117 Condition 4 Schedule 5	<p>By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <ol style="list-style-type: none"> describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the next year; include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the <ul style="list-style-type: none"> the relevant statutory requirements, limits or performance measures/criteria; the monitoring results of previous years; and the relevant predictions in the EA; identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; identify any trends in the monitoring data over the life of the project; identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and describe what measures will be implemented over the next year to improve the environmental performance of the project. 	<p>4.2 & 4.3</p> <p>6, 7 & 8</p> <p>6, 7, 8 & 11</p> <p>6, 7, 8 & 9</p> <p>6, 7, 8 & 9</p> <p>6, 7, 8 & 12</p>
Project Approval 08_0135 Condition 4 Schedule 6	<p>By the end of March each year, or other timing as may be agreed by the Secretary, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <ol style="list-style-type: none"> describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the next year; include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against the <ul style="list-style-type: none"> the relevant statutory requirements, limits or performance measures/criteria; the monitoring results of previous years; and the relevant predictions in the EA; identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; identify any trends in the monitoring data over the life of the project; identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and describe what measures will be implemented over the next year to improve the environmental performance of the project. 	<p>4.2 & 4.3</p> <p>6, 7 & 8</p> <p>6, 7, 8 & 11</p> <p>6, 7, 8 & 9</p> <p>6, 7, 8 & 9</p> <p>6, 7, 8 & 12</p>
Mining Lease 1605, 1606 & 1628 Condition 4 & 5	<p>The lease holder must lodge Environmental Management Reports (EMR) with The Director-General annually or at dates otherwise directed by the Director-General.</p> <p>The EMR must:</p> <ul style="list-style-type: none"> report against compliance with the MOP; report on progress in respect of rehabilitation completion criteria; report on the extent of compliance with regulatory requirements; and 	This Report & Section 8

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Approval Type & Reference		Annual Review Section
	- have regard to any relevant guidelines adopted by the Director-General;	
Mining Lease 1691 Condition 4	(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.	This Report & Section 8
Mining Lease 1715 Condition 4	a) The lease holder must submit a Compliance Report to the satisfaction of the Minister. The report must be prepared in accordance with any relevant guidelines or requirements published by the Minister for compliance reporting. (b) The Compliance Report must include: I. The extent to which the conditions of this mining lease or any provisions of the Act or the regulations applicable to activities under the mining lease, have or have not been complied with; II. Particulars of any non-compliance with any such conditions or provisions; III. The reasons for any such non-compliances; IV. Any action taken, or to be taken, to prevent any recurrence, or to mitigate the effects, of that non-compliance. (c) The Compliance Report must be lodge with the Department annually on the grant anniversary date for the life of this mining lease.	This Report & Section 8
Water Licences 20BL172002 Condition 5 and 20BL173923 Condition 4	The Licence holder must include in the Annual Review required to be prepared on an annual basis under the development consent: 1. The total volume of groundwater extracted from the bores during the relevant period of reporting; 2. An estimate of the total volume of groundwater taken from the alluvial water source(s) Note – Any estimate or report of water extracted can be amended by notice to the department if at the time the licence holder believes previous estimates or reports are not correct. The Licence holder must hold sufficient shares of aquifer category access licence to account for any water taken from the alluvial aquifer.	This Report & Section 7
EPBC 2007/3297 Condition 4	The person taking the action must publish a report on their website addressing compliance with each of the conditions of this approval, by 31 March for the preceeding calendar year. Annual reports must published until the Minister is satisfied that the person taking the action has complied with all conditions for the approval. Documentary evidence providing proof of the date of publication must be provided to the Department at the same time as the compliance report is published.	This Report Section 6 and Appendix 4
EPBC 2008/4444 Condition 10	The approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of the BOMP and VCPLMP as specified in the conditions, by 31 March for the preceeding calendar year. Documentary evidence providing proof of the date of publication must be provided to the Department at the same time as the compliance report is published.	This Report Section 6 and Appendix 4
EPBC 2013/6926 Condition 10	The approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of the BOMP and VCPLMP as specified in the conditions, by 31 March for the preceeding calendar year. Documentary evidence providing proof of the date of publication must be provided to the Department at the same time as the compliance report is published.	This Report Section 6 and Appendix 4

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4.0 OPERATIONS SUMMARY

4.1 MINING OPERATIONS

Details of production and associated waste generated by the site for the current and next reporting period are provided in **Table 6**.

Table 6 : Production Summary

Material	Approved Limit (as per Project Approvals 05_0117 & 08_0135)	Reporting Period		
		Previous Period (actual)	Current Period (actual)	Next Period (forecast)
Waste Rock/ Overburden (BCM)	N/A	27,295,594	42,920,769	46,000,000
Open Cut ROM Coal (t) (OC1, 2 & 3)	8,000,000 9,000,000*	8,999,963	8,842,743	5,900,000
Open Cut ROM Coal (t) (OC4)	12,000,000	0	2,972,741	7,100,000
Open Cut ROM Coal (t)	13,000,000	8,999,963	11,815,484	13,000,000
Underground ROM Coal (t)	8,000,000	1,000	422,086	1,200,000
Coal Washing (t)	13,000,000 13,500,000*	9,004,711	12,155,570	13,500,000
Rejects (Co Disposal)	N/A	2,105,532	2,806,783	2,300,000
Product Coal (t)	N/A	6,899,179	9,348,787	11,200,000

*Stage 1 Open Cut production for 2015 and 2016. ** Washing limit for 2017.

4.2 REPORTING PERIOD ACTIVITIES

This section provides further detail on the activities completed in the current reporting period. Works were carried out in accordance with the relevant Mining Operations Plan (MOP). **Figure 4** presents the areas of activity.

4.2.1 EXPLORATION

Exploration activities were undertaken in ML1715 and ML1691, including a total of 14 exploration holes primarily focusing on OC4 within ML1715 and OC3 within ML1691.

All drilling programs use existing tracks to access sites where possible, when existing tracks are unavailable a 4m wide track is created using a slasher if possible. Drill sites are generally 50m x50m to allow suitable room to safely undertake drilling activities.

4.2.2 LAND DISTURBANCE

During the reporting period 187ha was disturbed for Stage 2 project construction and open-cut mining across OC1, OC1 Mod 9 area, OC2 and OC4 with the majority of the land disturbance associated with the

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progression of mining in OC2 and OC4 and the water infrastructure. The areas disturbed this reporting period are shown in **Figure 3**.

All land disturbance is undertaken in accordance with the Ground Disturbance Permit (GDP) process. This includes pre-clearance surveys, heritage clearance, erosion and sediment control plans, confirmation of land ownership and disturbance extents reviewed to ensure compliance with relevant management plans (Biodiversity Management Plan, Vegetation Clearance Protocol and Landscape Management Plan and Rehabilitation Management Plan).

Topsoil, mulch and select salvageable hollows were reclaimed for use in rehabilitation areas, or stockpiled for future use.

4.2.3 CONSTRUCTION

Construction works during the reporting period included the Continuation of the Open Cut Expansion Project and the Underground 1 project.

Open Cut Expansion Project activities undertaken in the period include:

- Installation and commissioning of the materials handling system and coal processing upgrades, including ROM dump hopper, sizers, surge bin, conveyors, transfers, Flocc plant, Belt Press Filter, and CHPP workshop/stores upgrades.
- Completion of MIA area, reload, magazine areas, workshop, stores expansion, new administration offices, OC1 Workshop and stores expansion and dams.

Underground 1 Project construction activities undertaken in the period include:

- Construction and commissioning of coal handling and transfer infrastructure in the boxcut, conveyor trace, UG ROM;
- Commissioning of the MIA buildings, fire water tanks and associated services;
- Completion of RISA earthworks and hard stands;
- Commenced CHPP bulk earthworks and conveyors underpass tunnels;
- Commenced construction of the coal bypass conveyor and associated infrastructure; and,
- Commenced mine development of longwall panel 101.

4.2.4 MINING OPERATIONS

Mining activities were undertaken in accordance with relevant project approvals and the approved MOP. During the current reporting period general mining activities included:

- Overburden removal from OC1, OC2 and OC4 using excavator and truck fleets;
- Coal extraction from OC1, OC2, and OC4;
- Drilling and blasting select overburden and coal;
- Spoil emplacement in-pit in OC1, OC2, and OC4 including within Out of pit dumps in OC4;
- Bulk spoil reshaping and rehabilitation;
- Construction and operation of water management works; and,
- Underground development coaling operations.

4.2.5 COAL PROCESSING AND TRANSPORT

ROM coal was transported from the ROM via conveyor to the CHPP for processing. Product coal transported to the product coal stockpile prior to raiiling. Coarse rejects were co-mingled with dewatered

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fine rejects and transported by conveyor to the Rejects Bin and then trucked back to the open pit for selective placement with mine spoil.

All product coal was loaded onto trains in the Moolarben rail loop and transported via rail to port. MCO monitors the amount of coal transported from site each year and the date/time of each movement. During the period, the maximum number of train movements per day was 7 with an average of 3 per day.

4.2.6 REHABILITATION

Rehabilitation works during the reporting period were undertaken within Open Cut 1, Open Cut 2, and progressive rehabilitation of construction areas. More detail of rehabilitation activities during the reporting period is provided in **Section 8.0**.

4.3 NEXT REPORTING PERIOD

The proposed mining sequence for 2017 is detailed in the currently approved MOP dated December 2016. The proposed activities at the end of 2017 are provided in **Figure 5**.

MCO will continue to operate 24 hours per day, 7 days per week with blasting limited to the hours and frequency detailed in PA 05_0117 Schedule 3, Condition 9 & 10 and PA 08_0135 Schedule 3, Condition 10 & 11.

4.3.1 EXPLORATION

Proposed exploration activities during 2016 will primarily focus on the southern areas of EL6288 adjacent to OC3, the eastern area of ML1715, UG1 area within ML1715, and the UG4 area within ML1605. All exploration carried out on MCO Exploration Licence areas will be approved through the Department of Industry Resources and Energy's application to Conduct Exploration Activities, including all required environmental assessments.

4.3.2 LAND DISTURBANCE

During the next reporting period approximately 182ha will be disturbed for open-cut mining across OC1, OC2 and OC4 with the majority of land associated with the progression of OC2 and OC4 including the development of water management infrastructure. The areas to be disturbed are shown in Figure 3.

4.3.3 CONSTRUCTION

Proposed construction works during the next reporting period primarily focus on the Underground 1 project.

Proposed Underground Project works include:

- Complete and commission the overland conveyor, sizing station and product stockpile;
- Complete the CHPP civil earthworks and rehabilitation;
- Construct and commission new 66/11kv sub station at the RSIA;
- Construct two large diameter ventilation shafts at the RSIA;
- Construct and commission main ventilation fans;
- Drilling and equipping large diameter service bore holes;
- Installation and commissioning of Longwall mining system;
- Installation of UG pit bottom dewatering systems; and,
- Construct MIA workshop, store and other infrastructure.

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4.3.4 MINING OPERATIONS

Mining operations for the next period are shown in **Figure 5** and include:

- Overburden removal from OC1, OC2 and OC4 using dozer, excavator and truck fleets;
- Coal extraction from OC1, OC2 and OC4;
- Drilling and blasting select overburden and coal;
- Spoil emplacement in-pit in OC1, OC2, and OC4 including out of pit dumps in OC4;
- Bulk spoil reshaping and rehabilitation;
- Groundwater take from excavations and bores;
- Construction and operation of water management works;
- Continued underground development; and
- Commencement of longwall operations.

4.3.5 COAL PROCESSING AND TRANSPORT

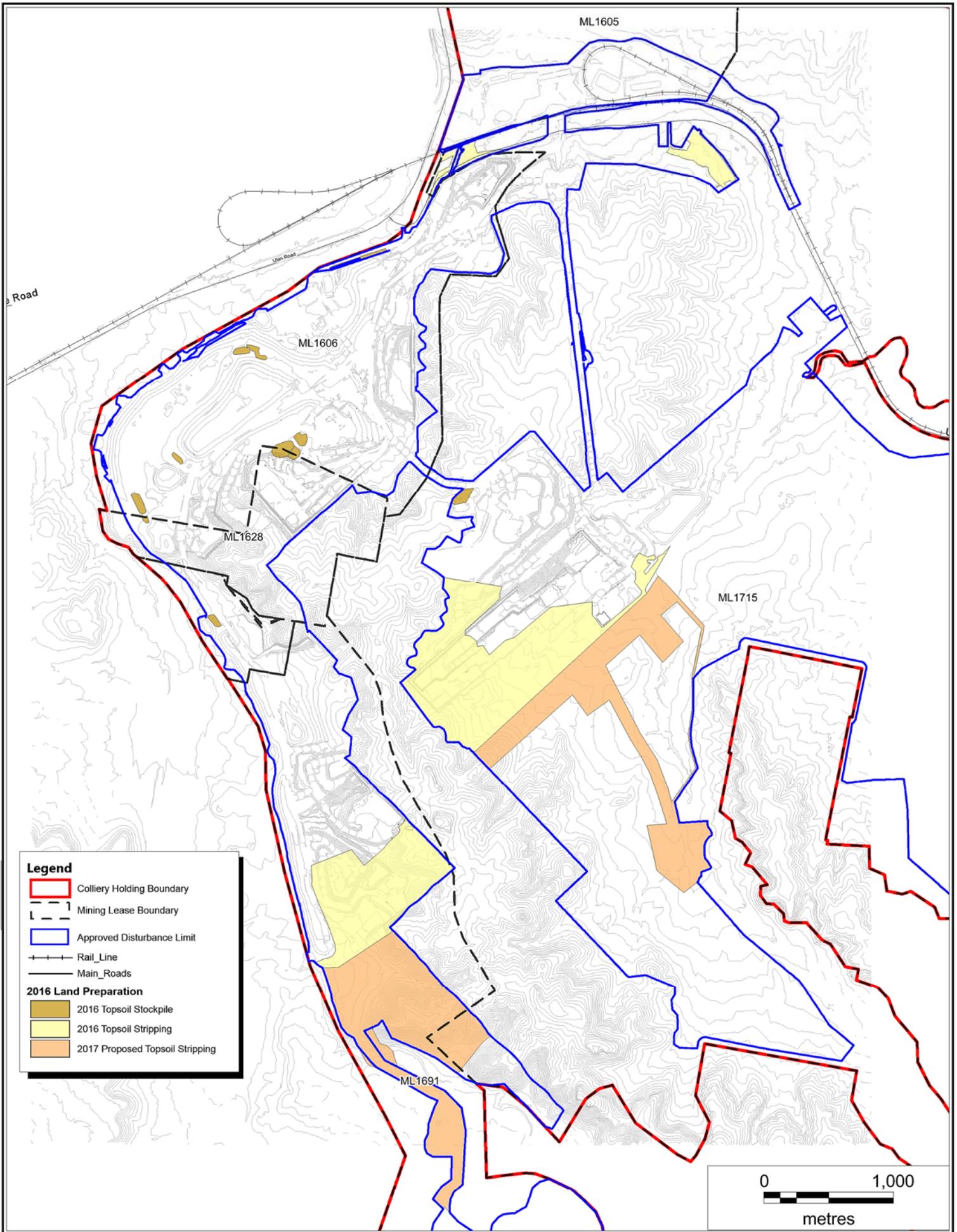
Open Cut ROM coal will be transported from the OC1 and OC4 ROMs via conveyor to the CHPP for processing. Underground coal will be transferred with the dedicated UG1 coal handling system when commissioned. Prior to commissioning, UG coal will be transported to the OC1 ROM and processed through the CHPP. Product coal will be stored on the product coal stockpile prior to transport. Coarse rejects will be co-mingled with dewatered fine rejects and transported by conveyor to the Rejects Bin from where it will be trucked back to the open pit for selective placement within mine spoil.

All product coal will be loaded onto trains in the Moolarben rail loop and transported via rail. All train movements will be conducted in accordance with the conditions of approval.

4.3.6 REHABILITATION

Rehabilitation works proposed for the next reporting period includes rehabilitation within OC1, OC2, OC4 out of pit emplacement, and progressive rehabilitation of construction areas.

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Legend

- Colliery Holding Boundary
- Mining Lease Boundary
- Approved Disturbance Limit
- Rail_Line
- Main_Roads

2016 Land Preparation

- 2016 Topsoil Stockpile
- 2016 Topsoil Stripping
- 2017 Proposed Topsoil Stripping

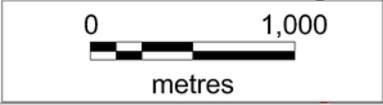
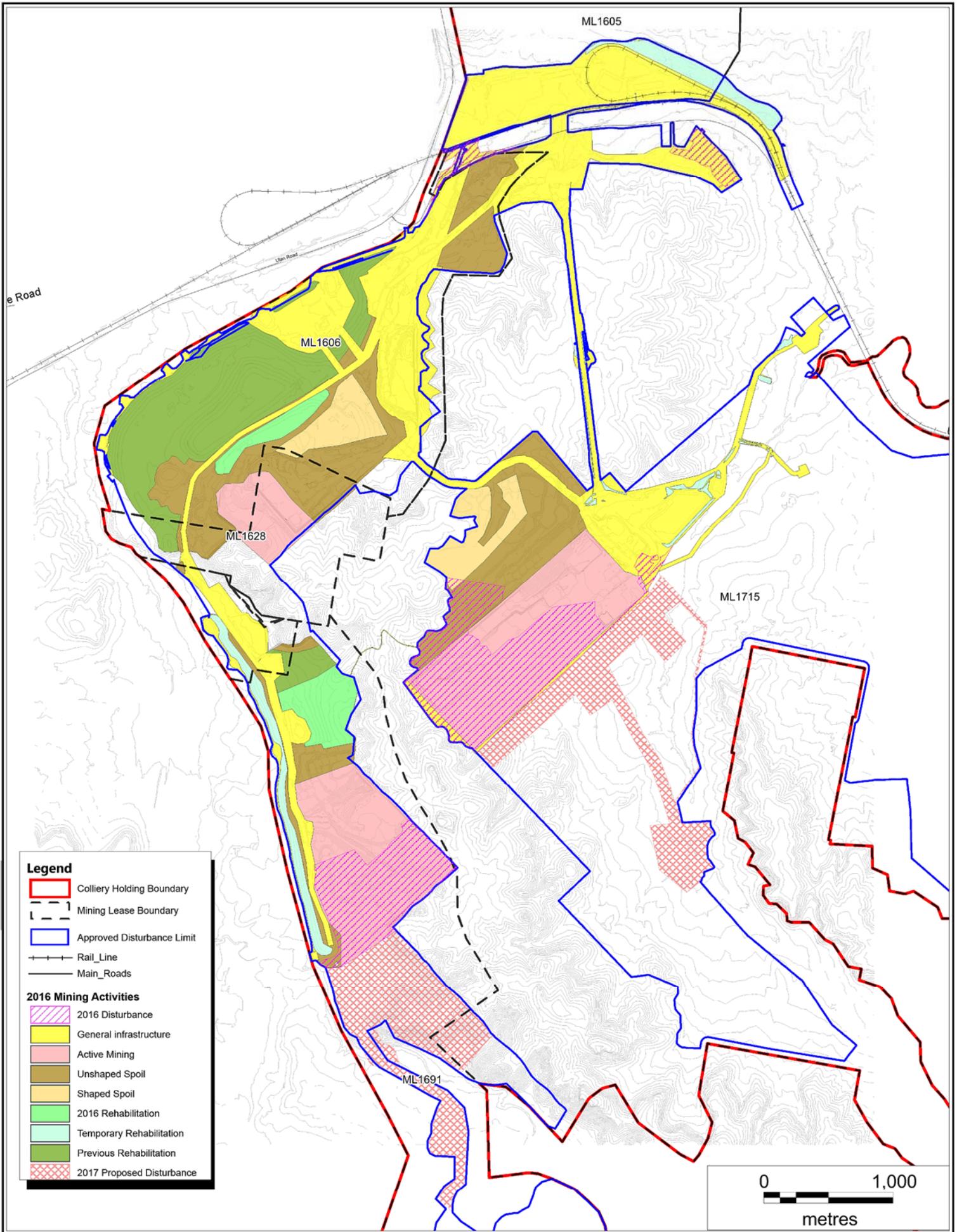


Figure 3
2016 Land Preparation

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 Map Size: A3 Portrait
 Coordinate System: MGA94 Zone 55
 Revision: 0
 Data Source: Land and Property Information (2014)
 Moolarben Coal Operations Pty Ltd (2017)

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Legend

- Colliery Holding Boundary
- Mining Lease Boundary
- Approved Disturbance Limit
- Rail_Line
- Main_Roads

2016 Mining Activities

- 2016 Disturbance
- General infrastructure
- Active Mining
- Unshaped Spoil
- Shaped Spoil
- 2016 Rehabilitation
- Temporary Rehabilitation
- Previous Rehabilitation
- 2017 Proposed Disturbance

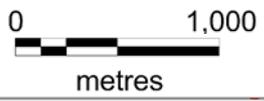


Figure 4
2016 Mining Activities



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