

MUSWELLBROOK SHIRE COUNCIL
DEVELOPMENT CONSENT



DA DA 2002/205
Approval Date: 27 February
2024
Approved by the Elected
Council

This document forms part of Council's Notice of Determination



INTEGRATED
ENVIRONMENTAL
MANAGEMENT
AUSTRALIA

Muswellbrook Coal Mine

DA 205/2002 Modification Report Addendum

Prepared for:
Muswellbrook Coal Company

September 2023

PREPARED BY:



Integrated Environmental Management Australia Pty LTD

ABN 32 622 237 870

PO Box 3161, MEREWETHER NSW 2291 AUSTRALIA

E: admin@iema.com.au

T: 0409 288 909 | W: www.iema.com.au

DISCLAIMER

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

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

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

DOCUMENT CONTROL

Reference	Date	Prepared	Authorised
DA 205/2002 Modification Report Addendum	August 2023	Nerida Manley	Andrew Hutton
DA 205/2002 Modification Report Addendum. <i>Updated in response to TfNSW comments.</i>	September 2023	Rhys Williams	Andrew Hutton

CONTENTS

1. INTRODUCTION.....	1
1.1. BACKGROUND.....	1
1.2. OVERVIEW OF MODIFICATION.....	1
2. PROPOSED MODIFICATION	6
2.1. PROPOSED CHANGES TO DA 205/2002 CONDITIONS.....	6
2.2. PROPOSED CHANGES TO OPERATIONS	6
2.3. SUBSTANTIALLY THE SAME DEVELOPMENT.....	9
2.4. NSW LEGISLATION.....	9
2.4.1. <i>Environmental Planning and Assessment Act 1979</i>	9
2.4.2. <i>NSW Environmental Planning and Assessment Regulation 2021</i>	11
2.4.3. <i>Environmental Planning Instruments</i>	11
2.4.4. <i>Mining Act 1992</i>	12
2.4.5. <i>Protection of the Environment Operations Act 1997</i>	12
2.4.6. <i>Water Management Act 2000 and Water Act 1912</i>	12
2.4.7. <i>Biodiversity Conservation Act 2016</i>	13
2.4.8. <i>Muswellbrook Local Environment Plan 2009</i>	13
2.5. COMMONWEALTH LEGISLATION.....	13
2.5.1. <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	13
3. STAKEHOLDER ENGAGEMENT.....	14
3.1. REGULATOR CONSULTATION.....	14
4. ASSESSMENT OF IMPACTS	15
4.1. REALIGNMENT OF DEVELOPMENT CONSENT BOUNDARY	15
4.2. REHABILITATION.....	18
5. JUSTIFICATION OF THE MODIFIED PROJECT.....	19
6. REFERENCES.....	20

TABLES

TABLE 1 – CURRENT APPROVED OPERATION AND PROPOSED MODIFICATION TO OPERATIONS	7
TABLE 2 – EP&A REGULATION MODIFICATION REQUIREMENTS	11
TABLE 3 – CONSULTATION UNDERTAKEN WITH REGULATORS FOR PROPOSED MODIFICATION ADDENDUM ...	14
TABLE 4 – ASSESSMENT OF PREDICTED IMPACTS	16

FIGURES

FIGURE 1 – REGIONAL LOCALITY.....	3
FIGURE 2 - DEVELOPMENT CONSENT BOUNDARY MODIFICATION	4
FIGURE 3 - DEVELOPMENT CONSENT BOUNDARY MODIFICATION INSET	5

APPENDIX

Appendix A	Schedule of Lands Proposed Changes to DA 205/2002
Appendix B	General Layout

1. INTRODUCTION

This Modification Report Addendum has been prepared by Integrated Environmental Management Australia (IEMA) on behalf of Muswellbrook Coal Company Limited (MCC) to support an application to Muswellbrook Shire Council (MSC) to modify Development Consent DA 205/2002 (as modified) pursuant to Section 4.55(1A) of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1. Background

Muswellbrook Coal Mine (MCM) is an open cut coal mine located 3 kilometres (km) north - east of the town of Muswellbrook, in the Muswellbrook local government area (LGA) in New South Wales (NSW) as shown on **Figure 1**. MCM is operated by MCC, a wholly owned subsidiary of Idemitsu Australia Pty Limited (IA). IA has been operating in Australia since 1978 and is an Australian subsidiary of Japanese company Idemitsu Kosan Company Limited.

MCC has a long association with coal mining at Muswellbrook, with underground coal mining commencing in 1907 and open cut operations in 1944. Underground operations ceased in the late 1990s and open cut operations ceased in December 2022. MCC has commenced detailed closure planning and final rehabilitation.

On 1 September 2003, Development Consent for DA 205/2002 was granted by Muswellbrook Shire Council (MSC) to extend the former MCC No.1 Open Cut. The No.1 Open Cut Extension commenced operations in March 2005 and had a capacity to produce up to 2,000,000 tonnes coal per annum. This approval has subsequently been modified on several occasions with the last major modification granted in 2016 to allow mining in an area known as the “Continuation Project” and to extend the life of the mining operations to 2022, and an administrative modification in 2022 for an extension of handling, storage and transportation of coal until 31 March 2023. MCC also has a Rehabilitation Management Plan (as required by the NSW *Mining Act 1992*) and an Environment Protection Licence (EPL) 656, which are available on the MCC website.

1.2. Overview of Modification

The New England Highway is a major freight and commuter route forming part of the Sydney to Brisbane corridor of the National Land Transport Network and the primary route connecting the Upper Hunter with Newcastle. The highway currently passes through Muswellbrook, forming the main road access through the town. Transport for NSW (Transport) is undertaking works to construct a bypass of the New England Highway at Muswellbrook to improve travel times, freight efficiency and safety for all road users. The bypass is located to the east of Muswellbrook and connects the New England Highway to the north and south of Muswellbrook. More information on the bypass can be found at <https://www.transport.nsw.gov.au/projects/current-projects/muswellbrook-bypass-new-england-highway>.

The bypass overlaps 11.7 ha of the MCM Development Consent footprint. Transport are in the process of acquiring this land from MCC.

This Modification Report Addendum has been prepared given the requirement to realign the DA 205/2002 Development Consent boundary to be consistent with the Transport acquisition boundary and to exclude the bypass footprint from the MCM Development Consent area which is shown in **Figure 2** and **Figure 3**.

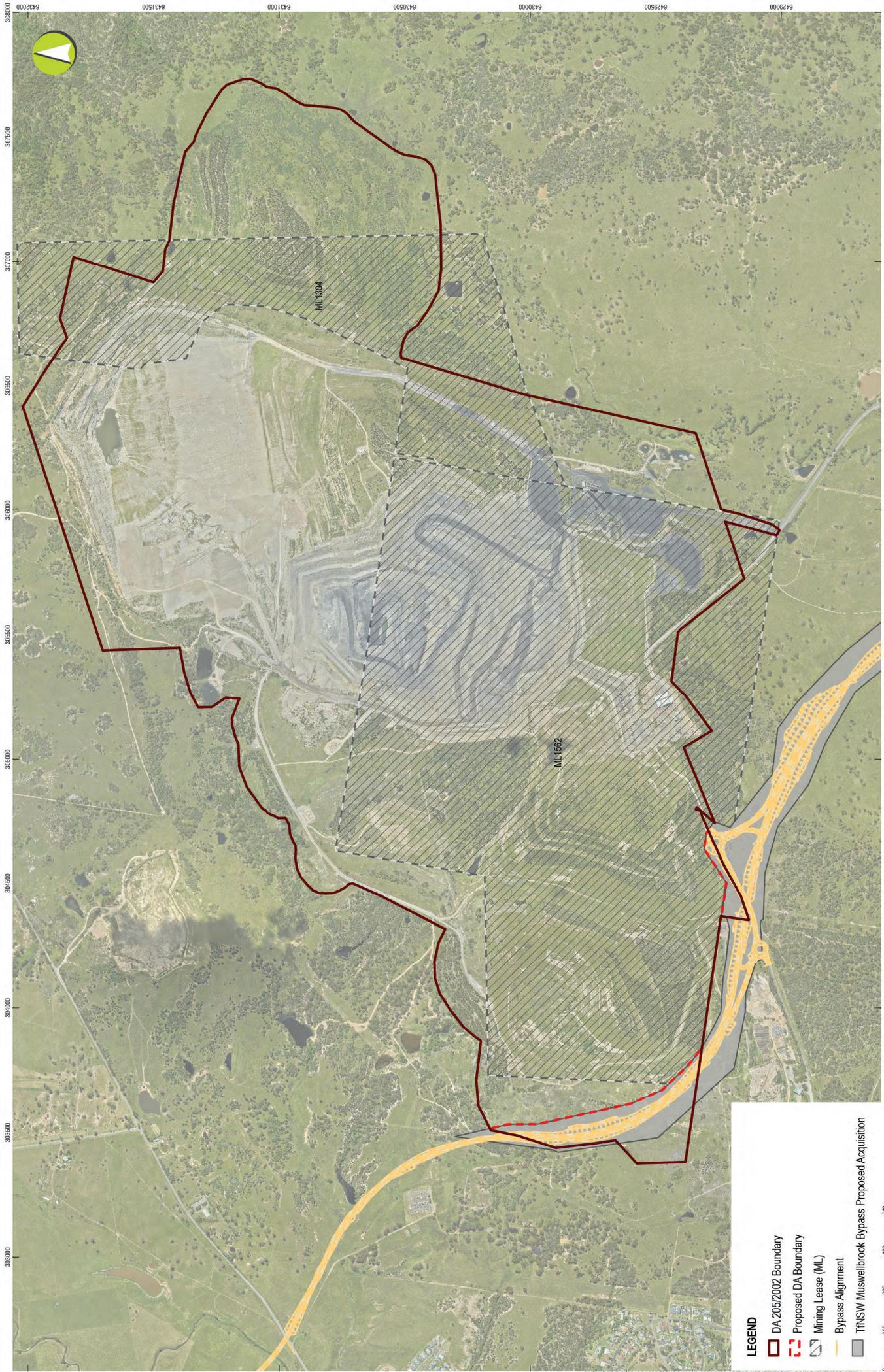
MCC submitted a modification application in 2022 to modify the consent to allow execution of closure activities (the closure modification). The application is pending determination by MSC. Given the timeframe for Transport to commence works associated with the bypass, MSC has advised MCC to

submit this Modification Report Addendum to capture the consent boundary adjustment as part of the closure modification. This Modification Report Addendum does not negate the changes sought in the closure modification, rather it seeks the consent boundary realignment in addition to the closure modification aspects. This Modification Report Addendum, therefore, only addresses the aspects and impacts associated with the consent boundary realignment.

Environmental impacts, and management of those impacts, within the bypass corridor have been assessed, and will be managed, by Transport separately.

Section 2 details the proposed changes to the development consent applicable to the boundary realignment.

Modification to Development Consent DA 205/2002 is sought under the provisions of 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) due to the minor nature of the changes and that there are no associated environmental impacts.

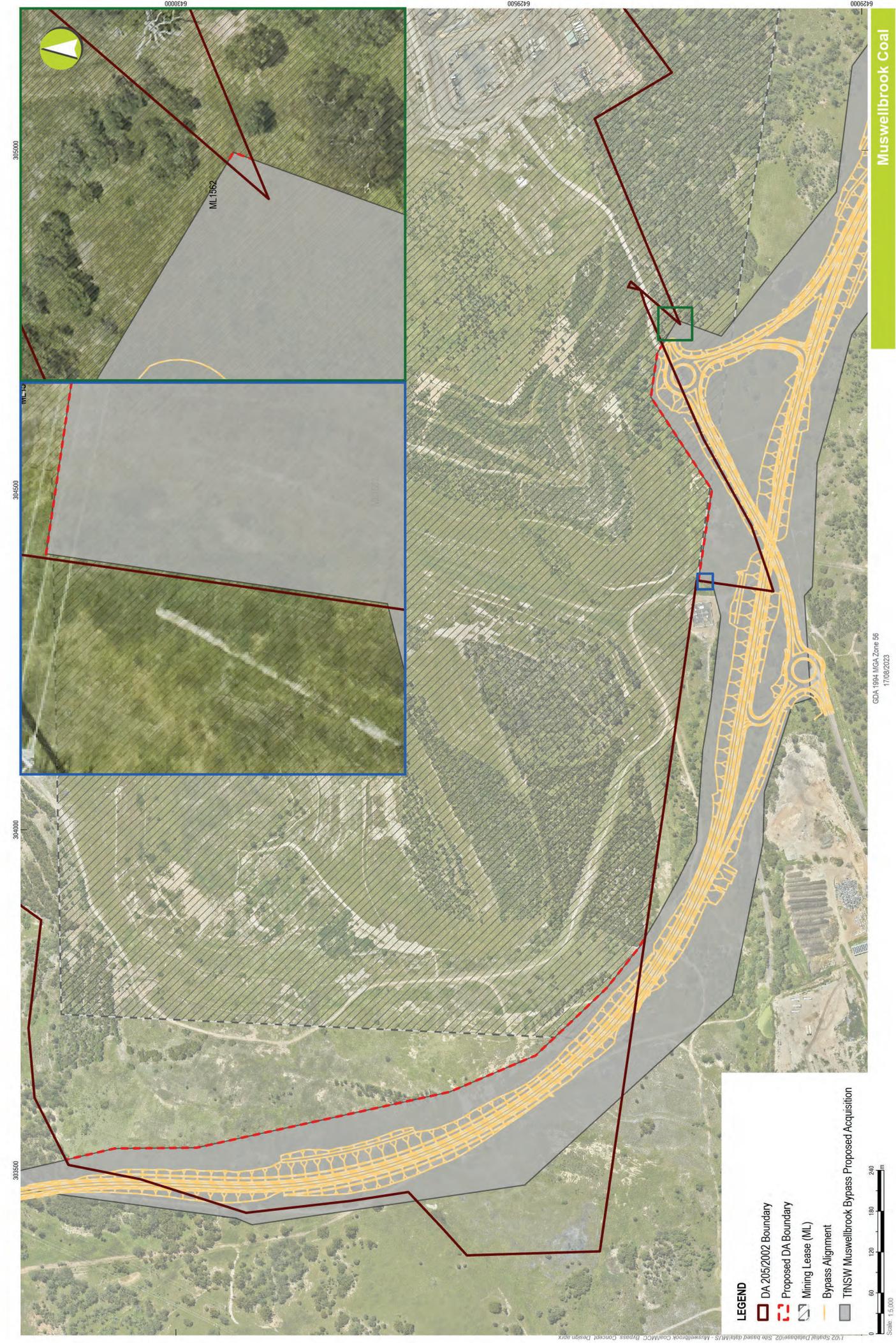


GDA 1984 MGA Zone 56
11/08/2023

- LEGEND**
- DA 205/2002 Boundary
 - Proposed DA Boundary
 - Mining Lease (ML)
 - Bypass Alignment
 - TNSW Muswellbrook Bypass Proposed Acquisition

Scale: 1:14,000
0 160 320 480 640
m

Muswellbrook Coal



Proposed DA 205/2002 Boundary Modification Inset
FIGURE 3

GDA 1984 MGA Zone 56
 17/02/2023

L:\02 Spatial Database\02 Site based data\MLs - Muswellbrook Coal\MLs - Muswellbrook Coal\MLs - Muswellbrook Coal\Bypass Concept Design.aprx

2. PROPOSED MODIFICATION

2.1. Proposed Changes to DA 205/2002 Conditions

This Modification Report Addendum has been prepared based on the requirement to realign the Development Consent DA 205/2002 boundary to be consistent with the Transport acquisition boundary and to exclude the bypass footprint from the MCM development consent area.

The Modification Report Addendum does not seek any further changes to conditions beyond those noted in the closure modification. The changes proposed relate to a revised Schedule of Land (Appendix A of DA 205/2002) and realignment of the development consent boundary, as shown in Appendix B of DA 205/2002.

Appendix A of this Modification Report Addendum provides the proposed Schedule of Land, whilst Appendix B provides the proposed development consent boundary.

2.2. Proposed Changes to Operations

Amendments to the development consent boundary are required to accommodate the acquisition of land by Transport for the 925m long section of the bypass which is located within the MCM development consent boundary. Table 2 summarises the current approved operation (2022) and proposed minor changes which are the subject of this Modification Report Addendum. These proposed changes do not result in any changes to, or any additional off-site environmental impacts, nor the management of the site. This is discussed further in **Section 5**.

Table 1 – Current Approved Operation and Proposed Modification to Operations

Aspect	Approved Operations (2022)	Modification Addendum (Bypass)
Not applicable, no further construction is proposed at MCM		
Period of Approval	Completion of operations by 31 December 2022, with the exception of handling storage and transportation of coal. Completion of handling, storage and transportation of coal by 31 March 2023.	No change.
Annual Production	Up to 2 Mtpa of product coal	No change.
Mining method	Open cut using an excavator and truck fleet	No change.
Mining Footprint	Mining with the approved extraction area.	No change.
Coal Processing	ROM coal is crushed on - site in the CCP. High ash coal is washed in the CPP. All product coal is stockpiled prior to transport off site.	No change.
Coal Rejects	Belt press filter used at the CPP to treat fines. Coarse and fine reject material then stockpiled and trucked back to the open cut for disposal with overburden.	No change.
Overburden	Overburden emplacement to occur sequentially in the voids of both Open Cut 1 and 2.	No change.
Site Infrastructure	MIA, coal crushing plant and CPP	No change.
Coal Transport	Transport of product coal by road to RCT.	No change.
Site Access	Access via Muscle Creek Road off the New England Highway and private access road into the mine site.	No change.
Hours of Operation	Open cut mining up to 24 Hours a day, 7 days a week	No change.
Employee Numbers	Up to 95 full - time equivalents (FTEs) with additional contractors as required.	No change.
Rehabilitation		
Hours of Operation	Open cut mining up to 24 Hours a day, 7 days a week	No change.

Aspect	Approved Operations (2022)	Modification Addendum (Bypass)																
Rehabilitation Objectives	<table border="1"> <thead> <tr> <th data-bbox="443 344 584 367">Rehabilitation</th> <th data-bbox="584 344 1133 367">Objectives</th> </tr> </thead> <tbody> <tr> <td data-bbox="443 367 584 450">Mine site (as a whole of the disturbed land and water)</td> <td data-bbox="584 367 1133 450">Safe, stable and non-polluting, fit for purpose of the intended post-mining land uses(s). Final landforms designed to incorporate natural micro-relief and natural drainage lines, which, where reasonable and feasible, further avoid straight run drainage drop structures, to integrate with surrounding landforms.</td> </tr> <tr> <td data-bbox="443 450 584 501">Rehabilitation materials</td> <td data-bbox="584 450 1133 501">Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation.</td> </tr> <tr> <td data-bbox="443 501 584 600">Landforms</td> <td data-bbox="584 501 1133 600">Final landforms sustain the intended land use for the post-mining domain(s). Final landforms are consistent with and complement the topography of the surrounding region to minimise the visual prominence of the final landforms in the post-mining landscape. Final landforms incorporate design relief patterns and principles for consistency with natural drainage.</td> </tr> <tr> <td data-bbox="443 600 584 741">Final voids</td> <td data-bbox="584 600 1133 741">Minimise to the greatest extent practicable: <ul style="list-style-type: none"> • The size and depth of the final void • The drainage catchment of the final void • Any high wall instability risk • Risk of flood interaction (flows in and out of the void) Maximise, to the greatest extent practicable, integration of the final void landform with the natural terrain features of the surrounding landscape.</td> </tr> <tr> <td data-bbox="443 741 584 779">Water Quality</td> <td data-bbox="584 741 1133 779">Water retained on site should be fit for the intended land use(s) for the post-mining domain(s).</td> </tr> <tr> <td data-bbox="443 779 584 882">Native flora and fauna habitat and corridors</td> <td data-bbox="584 779 1133 882">Size, locations and species of native tree lots and corridors are established to sustain biodiversity habitats. Species are selected that re-establish and complement regional and local diversity. The Native Vegetation Belt / Fauna Corridor links with the existing vegetation near Bells Mountain and Skelletar Ridge.</td> </tr> <tr> <td data-bbox="443 882 584 965">Post-mining agricultural pursuits</td> <td data-bbox="584 882 1133 965">The land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining with the aim of being achieved within 5 years of land use establishment.</td> </tr> </tbody> </table>	Rehabilitation	Objectives	Mine site (as a whole of the disturbed land and water)	Safe, stable and non-polluting, fit for purpose of the intended post-mining land uses(s). Final landforms designed to incorporate natural micro-relief and natural drainage lines, which, where reasonable and feasible, further avoid straight run drainage drop structures, to integrate with surrounding landforms.	Rehabilitation materials	Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation.	Landforms	Final landforms sustain the intended land use for the post-mining domain(s). Final landforms are consistent with and complement the topography of the surrounding region to minimise the visual prominence of the final landforms in the post-mining landscape. Final landforms incorporate design relief patterns and principles for consistency with natural drainage.	Final voids	Minimise to the greatest extent practicable: <ul style="list-style-type: none"> • The size and depth of the final void • The drainage catchment of the final void • Any high wall instability risk • Risk of flood interaction (flows in and out of the void) Maximise, to the greatest extent practicable, integration of the final void landform with the natural terrain features of the surrounding landscape.	Water Quality	Water retained on site should be fit for the intended land use(s) for the post-mining domain(s).	Native flora and fauna habitat and corridors	Size, locations and species of native tree lots and corridors are established to sustain biodiversity habitats. Species are selected that re-establish and complement regional and local diversity. The Native Vegetation Belt / Fauna Corridor links with the existing vegetation near Bells Mountain and Skelletar Ridge.	Post-mining agricultural pursuits	The land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining with the aim of being achieved within 5 years of land use establishment.	No change.
Rehabilitation	Objectives																	
Mine site (as a whole of the disturbed land and water)	Safe, stable and non-polluting, fit for purpose of the intended post-mining land uses(s). Final landforms designed to incorporate natural micro-relief and natural drainage lines, which, where reasonable and feasible, further avoid straight run drainage drop structures, to integrate with surrounding landforms.																	
Rehabilitation materials	Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation.																	
Landforms	Final landforms sustain the intended land use for the post-mining domain(s). Final landforms are consistent with and complement the topography of the surrounding region to minimise the visual prominence of the final landforms in the post-mining landscape. Final landforms incorporate design relief patterns and principles for consistency with natural drainage.																	
Final voids	Minimise to the greatest extent practicable: <ul style="list-style-type: none"> • The size and depth of the final void • The drainage catchment of the final void • Any high wall instability risk • Risk of flood interaction (flows in and out of the void) Maximise, to the greatest extent practicable, integration of the final void landform with the natural terrain features of the surrounding landscape.																	
Water Quality	Water retained on site should be fit for the intended land use(s) for the post-mining domain(s).																	
Native flora and fauna habitat and corridors	Size, locations and species of native tree lots and corridors are established to sustain biodiversity habitats. Species are selected that re-establish and complement regional and local diversity. The Native Vegetation Belt / Fauna Corridor links with the existing vegetation near Bells Mountain and Skelletar Ridge.																	
Post-mining agricultural pursuits	The land capability classification for the relevant nominated agricultural pursuit for each domain is established and self-sustaining with the aim of being achieved within 5 years of land use establishment.																	
Progressive Rehabilitation	Rehabilitation activities are generally undertaken on a progressive basis to achieve the approved rehabilitation objectives, final landform and final land use. Rehabilitation is undertaken in accordance with the approved Mining Operation Plan (MOP).	No change.																
Rehabilitation Plan/Strategy	<p>MCC is currently required to prepare a Rehabilitation Plan that outline all aspects of mine closure and rehabilitation, including post mining land use domain, rehabilitation objectives, completion criteria and rehabilitation monitoring and management. The approved MOP includes these aspects.</p> <p>In addition, a Rehabilitation Strategy is required to discuss the establishment of habitat corridors, re-establishment of native species, stabilisation of slopes, re-forestation, stormwater drainage and rehabilitation timeframes. The Rehabilitation Strategy has been prepared and submitted to MSC for review and approval however to date it has not been approved by MSC.</p>	No change.																
Final Landform	The approved conceptual final landform comprises shaped areas of overburden with the majority of slopes less than 10 degrees, steeper in localised areas of up to 14 degrees, excluding the final void batters which are slopes of up to 18 degrees. The maximum heights of the approved conceptual landform is reduced level (RL) 310 m in the Open Cut 2 rehabilitation area and RL 340 m in the eastern emplacement.	No change.																
Final Voids	Two final voids in Open Cut 1 and 2.	No change.																
Final Land Use	The final land use includes a combination of approximately 50% pasture and 50% native vegetation with a vegetation corridor between Bells Mountain and Skelletar Ridge.	No change.																
Environmental Management	MCC undertakes environmental management in accordance with an Environmental Management Strategy, which provides a strategic context for the approved Environmental Management Plans used at MCM.	No change.																

Aspect	Approved Operations (2022)	Modification Addendum (Bypass)
Site Access	Access via Muscle Creek Road off the New England Highway and private access road into the mine site.	No change.
Closure		
Closure Plan	A Closure Plan is required that includes detailed plans showing final landform and drainage detail, objectives and criteria for mine closure, indicative timing and sequence of closure, changes required to management plans, measures to minimise or manage ongoing environmental impacts and the closure monitoring regime. The Closure Plan has been prepared and submitted to MSC for review and approval however to date it has not been approved by MSC.	No change.
Relinquishment		No change.
Schedule of Land/Development Consent Boundary	Schedule of Land, as shown in Appendix A of DA 205/2002. Development Consent boundary, as shown in Appendix B of DA 205/2002.	Schedule of Land and Development Consent boundary updated to remove the bypass corridor.

2.3. Substantially the Same Development

A development consent may be modified under Section 4.55 of the EP&A Act provided it is substantially the same development as the development for which consent was originally granted. **Section 2.2** and **Table 2** of this report summarises the impacts of this modification compared with the originally approved development consent in 2003 (as modified). For these reasons, this modification addendum is substantially the same development as that currently approved and has been prepared in accordance with the requirements of 4.55 1(A) – a modification involving minimal environmental impact.

This proposed modification addendum and the originally approved development consent are substantially the same as all conditions remain the same and the only administrative change is to the development consent boundary and Schedule of Land

The applicable environmental planning approval process under NSW legislation and details of other NSW legislation relevant to the modification are included below.

2.4. NSW Legislation

2.4.1. Environmental Planning and Assessment Act 1979

On 1 September 2003, Development Consent for DA 205/2002 was granted by MSC to extend the former MCC No.1 Open Cut. This approval has subsequently been modified on several occasions with the latest modification pursuant to Section 4.55 of the EP&A Act 1979 granted in 2022.

In relation to this modification, Section 4.55 of the EP&A Act 1979 contains provisions relating to the modification of development consent. Specifically, subclause (1A) refers to modifications involving minimal environmental impact, and states:

(1A) Modifications involving minimal environmental impact. A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if--

(a) it is satisfied that the proposed modification is of minimal environmental impact, and

(b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and

(c) it has notified the application in accordance with--

(i) the regulations, if the regulations so require, or

(ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and

(d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be. Subsections (1), (2) and (5) do not apply to such a modification.

The nature of this modification is considered minor, as it does not radically transform the operations of the mine site, nor does it result in any additional off-site environmental impacts. Accordingly, the modification meets both the 'minimal environmental impact' and 'substantially the same' tests, and can therefore be assessed under Section 4.55(1A) of the EP&A Act.

2.4.2. NSW Environmental Planning and Assessment Regulation 2021

An application for modification of a development consent under Section 4.55 of the EP&A 1979 must contain the information stipulated in clause 100 of the EP&A Regulation. The required information and where it has been addressed in this report are detailed in **Table 3**.

Table 2 – EP&A Regulation Modification Requirements

Requirement	Where Addressed
The name and address of the applicant.	Muswellbrook Coal Company Limited
A description of the development that will be carried out under the development consent	Section 2
The address and folio identifier of the land on which the development will be carried out	An updated Schedule of Lands is attached as Appendix A. Note the change is administrative and lots acquired by the bypass are currently partially within DA boundary.
A description of the modification to the development consent, including the name, number and date of plans that have changed, to enable the consent authority to compare the development with the development originally approved	Section 2, Appendix A and Appendix B.
Whether the modification is intended to— (i) merely correct a minor error, misdescription or miscalculation, or (ii) have another effect specified in the modification application,	Section 2.4
A description of the expected impacts of the modification	Section 5
An undertaking that the modified development will remain substantially the same as the development originally approved	Section 2.4
For a modification application that is accompanied by a biodiversity development assessment report—the biodiversity credits information	Not applicable
If the applicant is not the owner of the land—a statement that the owner consents to the making of the modification application	Not applicable
Whether the modification application is being made to— (i) the Court under the Act, section 4.55, or (ii) the consent authority under the Act, section 4.56	Modification application is being made under section 4.55 of the EP&A Act 1979

2.4.3. Environmental Planning Instruments

State Environmental Planning Policy (Resource and Energy) 2021

The State Environmental Planning Policy (Resources and Energy) 2021 (RE SEPP) (formerly the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP)) aims to provide proper management and development of mineral, petroleum, and extractive material resources for the social and economic welfare of the State. Chapter 2 of the RE SEPP also aims to facilitate the orderly and economic use and development of land containing mineral, petroleum and extractive material resources, and establishes appropriate planning controls to encourage ecologically sustainable development (ESD).

Section 2.9 of the RE SEPP outlines mining activities which may be permitted with consent. Development for the purposes of mining is permissible by virtue of section 2.9(b) because the land was subject to a mining lease under the *Mining Act 1992* prior to the commencement of this section (and the former clause under the Mining SEPP). Furthermore, this modification addendum involves no change to approved operations wholly located within the proposed development consent boundary.

State Environmental Planning Policy (Biodiversity and Conservation) 2021

Chapter 4 of the State Environmental Planning Policy (Biodiversity and Conservation) 2021 titled "Koala habitat protection 2021" encourages the proper conservation and management of areas of natural vegetation that provide habitat for koalas. The modification addendum would not impact on vegetation that has the potential to provide habitat for koalas as no additional clearing is proposed within the proposed development consent boundary.

State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 4 of the State Environmental Planning Policy (Resilience and Hazards) 2021 (**Resilience and Hazards SEPP**) (formerly State Environmental Planning Policy No 55 - Remediation of Land (SEPP 55)) provides a state - wide approach to the remediation of contaminated land for the purpose of minimising the risk to human health and the environment. Under section 4.6, prior to granting consent to the carrying out of any development on land a consent authority is required to give consideration as to whether land is contaminated and, if the land is contaminated, whether the land is suitable for the purpose of the development or whether remediation is required.

This modification addendum will not result in any change to mining methods or coal processing, and no additional onsite infrastructure is proposed within the proposed development consent boundary.

2.4.4. Mining Act 1992

The NSW *Mining Act 1992* regulates the granting of mining leases and mining activities generally. The mining leases that apply to MCM are:

- CCL 713;
- ML 1304; and
- ML 1562.

MCC has a Rehabilitation Management Plan (RMP) in place for current operations. The RMP will be updated with details from this modification addendum where required once approval has been granted.

2.4.5. Protection of the Environment Operations Act 1997

The NSW *Protection of the Environment Operations Act 1997* (POEO Act) is the principal environmental protection legislation in NSW and is administered by the EPA. MCM has an existing EPL (EPL 656) issued under the POEO Act. The EPL authorises coal works to a maximum scale of 2 Mt handled and mining for coal to a scale of less than 0.5 – 2 Mt produced.

As the site has ceased mining, no changes in production will occur as a result of this modification addendum and MCC will continue operations under EPL 656. . MCC will seek variation or relinquishment of EPL 656, when required, to reflect the revised consent boundary and the rehabilitation and closure phases of the site.

2.4.6. Water Management Act 2000 and Water Act 1912

The NSW *Water Act 1912* and NSW *Water Management Act 2000* (WM Act) regulate water resources and use and outline provisions for the licensing of water capture and use. MCC holds the following water licences for MCM:

- WAL39806;
- WAL41503; and
- WAL41521.

No alterations to surface water management infrastructure or management are proposed within the proposed development consent boundary as part of this modification addendum, and there will be no changes within the development consent boundary that would impact on groundwater. MCC will vary, transfer, sell or relinquish water licences as required.

2.4.7. Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* aims to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development.

The Act requires that any vulnerable, endangered, or critically endangered species, population or ecological community associated with a proposed development are identified. It also requires that acceptable recovery and management strategies are implemented if a project is likely to have a significant impact.

This modification addendum will not have any impacts in this regard as no additional clearing is proposed within the proposed development consent boundary.

2.4.8. Muswellbrook Local Environment Plan 2009

MCM is subject to the Muswellbrook Local Environmental Plan 2009 (**Muswellbrook LEP**). Land within the development consent boundary is a combination of RU1 Primary Production, C3 Environmental Management and SP2 Infrastructure land use zones.

Whilst development for the purposes of "open cut mining" is a permissible form of development consent in the RU1 Primary Production zone, it is not expressly permissible under the other zones. The development is permissible by virtue of the RE SEPP provisions and also its existing approval.

MCC is not proposing changes to land use within the proposed development consent boundary.

2.5. Commonwealth Legislation

2.5.1. Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) aims to protect matters deemed to be of national environmental significance (MNES) that is:

- World heritage properties;
- Places listed on the National Heritage Register;
- Ramsar wetlands of international significance;
- Threatened flora and fauna species and ecological communities;
- Migratory species;
- Commonwealth marine areas;
- Nuclear actions (including uranium mining); and
- Actions of development for coal seam gas or large coal mining on water resources.

If an action (or proposal) would, or is likely to, have a significant impact on any MNES, it is deemed to be a controlled action and requires approval from the Commonwealth Environment Minister or the Minister's delegate. To determine whether a proposed action would or is likely to be a controlled action, an action may be referred to the Commonwealth Department of Agriculture, Water and the Environment.

The most recent Statement of Environmental Effects (SoEE) (EMM 2016), which was for the Continuation project, concluded that MCC was unlikely to significantly affect MNES and a referral was not required. As this proposed modification addendum is administrative and results in no change to mine life, mine footprint or mining method there remains no requirement to refer this modification.

3. STAKEHOLDER ENGAGEMENT

3.1. Regulator Consultation

MCC undertakes regular consultation with a range of regulators are part of day to day activities. The consultation undertaken in relation to this modification addendum is summarised in **Table 4**.

Table 3 – Consultation Undertaken with Regulators for Proposed Modification Addendum

Date	Government Department	Method of Consultation	Items Discussed
28 April 2023	Transport for NSW Muswellbrook Shire Council Resources Regulator	Meeting	Discussed the process for removing the Muswellbrook Bypass area from MCC's development consent and mining leases. A modification is to be made to MCC's development consent and then the area is to be relinquished from the mining lease through the ESF2 process.

4. ASSESSMENT OF IMPACTS

4.1. Realignment of Development Consent Boundary

Section 2.2 and **Table 2** of this report summarises the impacts of this modification addendum compared with the originally approved development consent in 2003 (as modified). The most recent SoEE (EMM 2016) approved for the modification to DA 205/2002 for continuation of mining until 31 December 2022 addressed:

- The provisions of all relevant environmental planning instruments.
- The likely impacts of the development – environmental, social and economic.
- The suitability of the site for the development; and
- The public interest.

Impacts were not assessed in the 2022 administrative modification and therefore remain the same as the 2016 modification.

The assessment of this proposed modification addendum remains unchanged with respect to the above considerations given this modification is administrative in nature, relating only to a development consent boundary adjustment to accommodate the Muswellbrook bypass.

The proposed realignment of the development consent boundary will not change environmental management of the MCM, nor the rehabilitation or closure of the site.

Table 5 summarises the current management and mitigation measures employed at MCM to manage any environmental impacts.

Table 4 – Assessment of Predicted Impacts

Statement of Environmental Effects (EMM 2016) Predictions	Current Management/Mitigation Measures	Impacts/changes as a Result of this Modification Addendum (Bypass)
<p>Noise and Blasting</p> <p>Noise emissions for the 2016 modification were predicted to be substantially the same at assessment locations for which noise limits apply under DA 205/2002. Noise levels were predicted to only marginally exceed DA limits at four locations. Predicted noise emission levels satisfied the relevant acquisition criteria and sleep disturbance criteria at all assessment locations.</p> <p>The frequency of attended noise monitoring would be increased from twice a year to monthly.</p> <p>The 2016 modification predicted that the blast emissions criteria would continue to be met throughout the life of the modification.</p>	<p>MCC operate in accordance with the approved Noise Management Plan, which details the management measures used to minimise the impact of noise from mining operations on the environment and nearby residences.</p> <p>MCC manage blasting impacts in accordance with the Blast Management Plan (BMP).</p> <p>Noise, overpressure and vibration emissions from mining operations at MCM typically satisfy the relevant criteria at all monitoring locations.</p>	<p>No change.</p> <p>The proposed modification addendum does not propose a change to activities at site, therefore noise and blasting impacts and management would not change.</p>
<p>Air Quality and Greenhouse Gas (GHG)</p> <p>The 2016 modification was predicted to result in incremental exceedances of the 24 - hour average PM10 criterion at a single assessment location to the north of MCM. The cumulative impact assessment predicted impacts at two assessment locations on two to three additional days which correspond to days where background levels are already elevated.</p> <p>Relocation of an existing monitor to the north of MCM (near R25) and installation of a new monitor to the south - southeast of MCM are proposed to supplement the existing air quality monitoring network.</p> <p>Existing blast fume management practices were expected to be adequate for continued operations under the modification.</p> <p>Estimated annual average GHG emissions for the modification were predicted to be insignificant compared to total NSW and national GHG generation.</p>	<p>MCC operate in accordance with the approved Air Quality Management Plan (AQMP).</p> <p>The primary objective of air quality management at MCC is to manage and minimise the impact of dust from the operations on the environment and nearby residences.</p>	<p>No change.</p> <p>The proposed modification addendum does not propose a change to activities at site, therefore air quality and greenhouse gas impacts and management would not change.</p>
<p>Geochemistry</p> <p>The 2016 modification permitted the overburden emplacement to occur sequentially in the voids of both Open Cut 1 and 2. There were no changes proposed to the approved minimum and maximum RL of overburden emplacement as a result of the modification and spontaneous combustion was to continue to be managed in accordance with Spontaneous Combustion Management Plan and the MOP.</p>	<p>MCC operates in accordance with the Spontaneous Combustion Management Plan and the MOP.</p>	<p>No change.</p> <p>The proposed modification addendum will not change the likelihood of spontaneous combustion at the site or alter the management/mitigation measures.</p>
<p>Surface Water</p> <p>All changes proposed as part of the modification would occur within the catchments of Open Cut 1, Open Cut 2 and Dams 1 and 2. Surface water would continue to be managed in accordance with the existing SWMP. With the exception of relocating the existing raw water supply tanks (and associated pipelines) and redistribution of the catchment areas between Open Cut 1, Open Cut 2 and Dams 1 and 2 no significant changes to the water management system would occur as part of the modification.</p> <p>No change to the existing water supply arrangements were proposed.</p>	<p>MCC manage surface water impacts in accordance with the Water Management Plan (WMP).</p> <p>MCC undertake a surface water monitoring program that consists of monthly, quarterly and annual monitoring.</p>	<p>No change.</p> <p>The proposed modification addendum will not result in a change to surface water impacts or management.</p>

Statement of Environmental Effects (EMM 2016) Predictions	Current Management/Mitigation Measures	Impacts/changes as a Result of this Modification Addendum (Bypass)
Groundwater		
The groundwater assessment for the modification predicted that the incremental groundwater impacts as a result of the modification would be negligible. Groundwater inflows to MCM under the modification were expected to be in the range of previous predictions for approved operations. A maximum radius of drawdown of approximately 1 km is estimated, which is consistent with the monitoring data to date.	MCC manage groundwater impacts in accordance with the Water Management Plan (WMP). MCC undertake a groundwater monitoring program that consists of monthly and annual monitoring.	No change. The proposed modification addendum will not result in a change to groundwater impacts or management.
Heritage (Historic and Aboriginal)		
No impacts to historical or Aboriginal heritage were predicted as part of the previous modification given the area where mining was to be extended had been extensively disturbed as part of historical mining operations.	There is one known Aboriginal cultural site located within the mine lease boundary, but outside of the disturbance footprint. There are no European Heritage sites located at MCC that require ongoing management. A ground disturbance permit is used whenever any clearing is required outside of areas already assessed.	No change. The existing approved mine footprint will be decreased by the proposed modification addendum.
Biodiversity		
The 2016 modification was unlikely to significantly impact biodiversity values as the expansion was located within a rehabilitated area of MCM. While the modification would disturb an area of partially completed rehabilitation, the modification area would be progressively rehabilitated following mining in accordance with the MOP.	MCC manage impacts on flora and fauna in accordance with the requirements of the approved MOP.	No change. The proposed modification addendum reduces the mine footprint and no additional clearing is proposed.
Visual		
The 2016 modification predicted a negligible incremental visual impact on people living in, and travelling through, the area around MCM over and above currently approved operations, with existing views from receptor locations remaining substantially the same.	MCC operate in accordance with the Visual Amenity, Lighting and Landscaping Management Plan (VALLMP).	No change. The proposed modification addendum does not include any change to maximum height of the landform, any additional mining expansion or increase in mining footprint therefore the visual impact of the mine is predicted to be the same.
Bushfire		
There was no bushfire assessment undertaken as part of the 2016 modification.	Management of bushfire risks are undertaken in accordance with the Bushfire Management Plan (BFMP).	No change.
Traffic and Transport		
There was no traffic impact assessment undertaken as part of the previous modification as volumes of product coal being transported offsite were not changed.	Product coal is trucked off site via Muscle Creek Road and the New England Highway to the Ravensworth Coal Terminal (RCT) for train loading.	The proposed modification addendum will not result in changes to the approved volumes of coal produced or transported from MCM, and no change to approved employee numbers.
Waste		
There was no new waste streams predicted to be generated by the 2016 modification therefore a waste assessment was not undertaken.	Waste streams are segregated and removed from site by a licensed waste contractors.	The proposed modification addendum will not result in changes to the waste streams and waste management.

4.2. Rehabilitation

Rehabilitation of the site will continue to be undertaken in the proposed consent boundary in accordance with the RMP requirements.

5. JUSTIFICATION OF THE MODIFIED PROJECT

MCM is an existing mine which successfully operated since 1907 and continues to undertake rehabilitation and closure activities within its existing mining authorities and development consent boundary. This modification is substantially the same development as that which is originally approved.

The purpose of the Modification Report Addendum is to amend the Development Consent boundary for MCM to align with the footprint of the New England Highway bypass of Muswellbrook. The realignment supports Transport's acquisition of MCC land.

Any changes are minor in nature and there are no associated environmental impacts within the proposed Development Consent area.

Precautionary Principle

The precautionary principle, in summary, holds that if there are threats of serious or irreversible environmental damage, the lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

The potential implications of the Modification Report Addendum remain unchanged given the existing environmental management and mitigation measures in place at MCM.

As the MCM transitions into rehabilitation and closure, the environmental impacts are expected to lessen following cessation of mining. Environmental management at the site will be reviewed by MCC and the Environmental Management Plans amended as required to account for the changing activities.

Inter-generational Equity

The principle of inter - generational equity puts an onus on society to ensure that the health, diversity and productivity of the environment are maintained, or enhanced, for the benefit of current and future generations.

The Modification Report Addendum has negligible potential to adversely affect the health, diversity or productivity of the environment within the proposed development consent boundary and, therefore, would not adversely impact the current or future generations.

The existing environmental management and mitigation measures used by MCC minimise the risk of the Modification Report Addendum resulting in a significant impact to the local environment and assist in ensuring that current and future generations can enjoy equal and equitable access to social, environmental and economic resources.

Conservation of Biological Diversity and Maintenance of Ecological Integrity

The Modification Report Addendum does not pose a significant threat to local biological diversity or ecological integrity within the proposed development consent boundary as there is no proposed change to mining footprint. Rehabilitation will be undertaken in accordance with the RMP.

Improved valuation and pricing of environmental resources

The cost associated with using or impacting upon an environmental resource is seen as a cost incurred to protect that resource.

MCC do not propose to increase the amount of coal mining, mining footprint or time period of mining at MCM. Mining operations ceased in 2022.

The Modification Report Addendum aims to realign the development consent boundary to align with the footprint of the New England Highway bypass of Muswellbrook. The realignment supports Transport's acquisition of Muswellbrook Coal land.

6. REFERENCES

- DPIE (2021a) *State significant development guidelines – preparing an environmental impact statement* (Appendix B to the state significant development guidelines)
- DPIE (2021b) *State significant development guidelines – preparing a modification report* (Appendix E to the state significant development guidelines)
- EMM (2016) *Muswellbrook Coal Continuation Project, Statement of Environmental Effects*
- MCC (2019) *Mining Operations Plan and Rehabilitation Plan, Amendment A (January 2017 to December 2023)*
- MCC (2022) *Rehabilitation Management Plan*



APPENDIX A
Proposed Changes to DA 205/2002 Appendix A -
Schedule of Land

Schedule of Land

Lot	Deposited Plan (DP)	Owner
681	611756	Muswellbrook Coal Company (MCC)
682	611756	MCC
1	571355	MCC
1	723294	MCC
2	723294	MCC
97	752484	MCC
1	45525	MCC
82	231202	MCC
811	534516	MCC
58*	752484	MCC
59*	752484	MCC
60*	752484	MCC
62*	752484	MCC
61*	1113302	MCC
1*	1004305	MCC
70*	752484	MCC
71*	752484	MCC
1*	184481	MCC
98*	752484	MCC
3*	571355	MCC
1*	614842	MCC
2*	614842	MCC
39*	793463	MCC
1*	45194	MCC
6*	26760	MCC
20*	16352	MCC

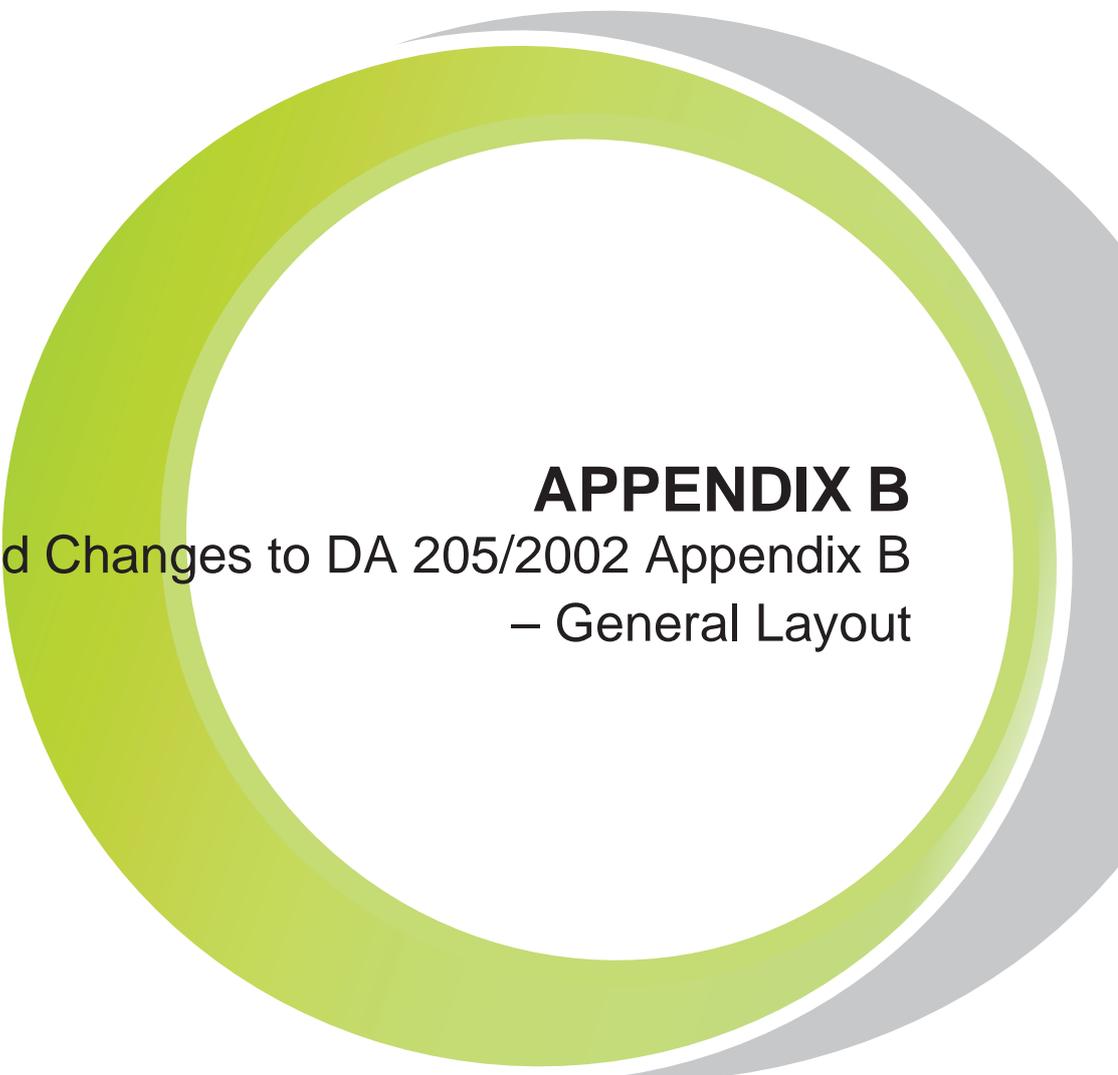
Lot	Deposited Plan (DP)	Owner
402*	578075	MCC
3*	1220491	MCC
4*	1220491	MCC
5*	26760	MCC
71*	629631	MCC
101*	1148216	MCC
1*	46760	MCC

Notes:

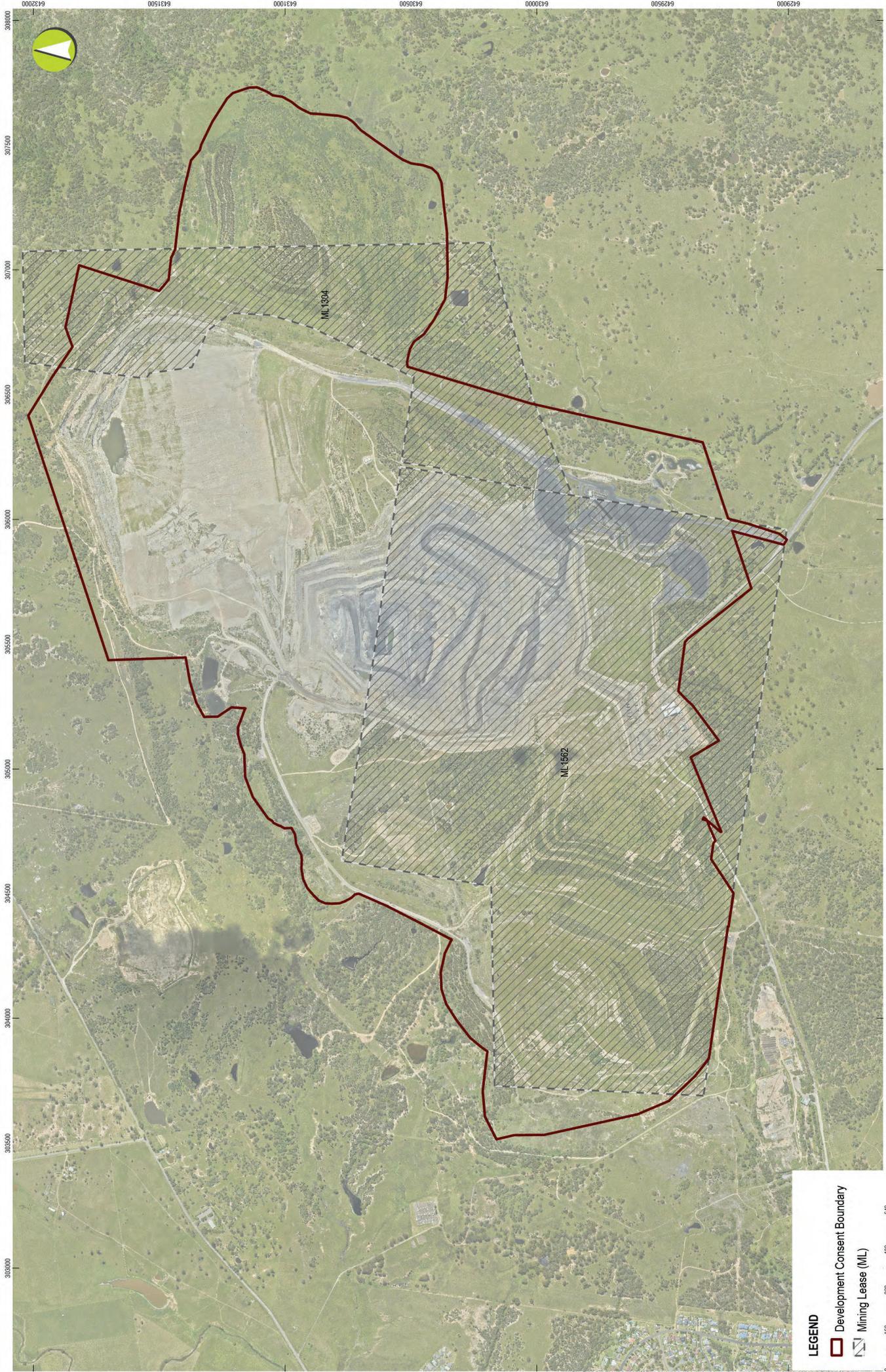
1. *Part of block within DA Boundary
2. Schedule of Land applies to those areas of land within the DA Boundary
3. Blue text denotes changes to partial Lot and DP areas of land associated with the DA boundary Modification.



INTEGRATED
ENVIRONMENTAL
MANAGEMENT
AUSTRALIA

A large, thick, green circular graphic with a white inner ring and a grey outer shadow, partially visible on the right side of the page.

APPENDIX B
Proposed Changes to DA 205/2002 Appendix B
– General Layout



GDA 1984 MGA Zone 56
18/08/2023

Muswellbrook Coal

LEGEND

- Development Consent Boundary
- Mining Lease (ML)



EMM
 INTEGRATED
 ENVIRONMENTAL
 MANAGEMENT
 www.emm.com.au
 Sheet Size: A3