

Muswellbrook Coal Mine

DA 205/2002 Modification Report

Prepared for: Muswellbrook Coal Company

September 2022

PREPARED BY:



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DOCUMENT CONTROL

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1. INTRODUCTION

This Modification Report 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; however open cut mining continues.

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 has a capacity to produce up to 2,000,000 tonnes coal per annum. This approval has subsequently been modified on several occasions with the latest 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. MCC also operates under a Rehabilitation Management Plan (RMP) and Environment Protection Licence (EPL) 656, which are available on the MCC website.

MCM operates as a truck and excavator multi-seam coal mine with a production limit of 2 million tonnes per annum. Coal is crushed and washed then stockpiled onsite (**Figure 2**) before being hauled to the Ravensworth Coal Terminal (RCT), where it is then transported by rail to the Port of Newcastle for export. The haulage route is shown in **Figure 3**.

Mining operations are approved to be carried out until 31 December 2022.







Location of Coal Stockpiles



1.2. Overview of Modification

Coal mining and coal processing will cease by December 2022, however, MCC is seeking to continue the handling and storage (i.e., stockpiling, hereinafter referred to as "storage") of coal on site using existing infrastructure and transporting of coal off site until 31 March 2023. The key drivers for the modification of conditions are:

- Identification of additional coal the remaining coal resource has been found to be greater than what was modelled, and this coal would become sterilised if not mined by MCC prior to closure of the site.
- **Unseasonal weather** higher than average local and regional rainfall and associated flooding events along the rail network have resulted in disruptions and some delays in the mining, processing and transporting coal at the site.
- Equipment and labour shortages MCC's coal haulage contractor was unable to extend their haulage contract due to other commitments and during the transition to an alternate option, MCC has had difficulties sourcing haulage contractors with equivalent capacities, in terms of size of trucks and number of trucks. This has resulted in reduced coal haulage volumes.

Due to these unforeseen circumstances the Site is accommodating more stockpiled coal than anticipated. MCC has been unable to facilitate coal transportation at expected capacities because of weather and contractor issues. Accordingly, MCC expects that it cannot transport all coal offsite by the current December 2022 deadline under the current consent. In anticipation, MCC is seeking a short extension of time for coal handling and storage purposes only so that it can lawfully transport the coal offsite and prepare the site for its decommissioning and rehabilitation phase.

Section Error! Reference source not found. details the proposed changes to operations and the proposed changes to the development consent conditions.

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 given the proposed modification is likely to have minimal environmental impact.

1.3. MSC Requirements

MCC met with Council on 8 September 2022 to advise that they were seeking to make a modification to DA 205/2002. Council requested that MCC provide them with a letter to outline the request. This letter was submitted to Council on the 12 September 2022. The matter was further discussed at Council's State Significant Development (SSD) Committee meeting on the 19 September 2022. At the meeting, MCC confirmed that extraction and processing of coal would be completed by 31 December 2022 (per the current consent) and that the modification applied to handling, storage and transport of coal only.

Council provided feedback to MCC in an email dated 21 September 2022 regarding this modification of DA 205/2002 including what aspects they would like to see addressed. Further feedback was provided by Council in an email dated 23 September 2022 regarding additional aspects to be included in the modification report.

The Modification Report was submitted via the Planning Portal on 27 September 2022 and MCC received a subsequent request from Council on 28 September 2022 to modify and resubmit the Modification Report.

Table 1 includes a summary of the Council requirements and how they have been addressed in this

 Modification Report.



MSC	Requirement	Date of Request	Where addressed
1.	Addresses Section 4.55 of the Environmental Planning and Assessment Act 1979;	21 September 2022	This report addresses Section 4.55 of the Environmental Planning and Assessment Act 1979
2.	Is prepared generally in accordance with DPE's 'State significant development guidelines – preparing a modification report' (Dec, 2021), specifically noting Section 2.2;	21 September 2022	This report has been prepared to be generally consistent with these guidelines.
3.	Includes a clear description of the proposed consent changes. From preliminary discussions, this will include an updated definition for "Mining Operations" and an additional definition for "processing, handling, storage and transportation of coal". Cond 4 of "Period of Approval" will also be required to be amended to include the proposed timeframe extension for "processing, handling, storage and transportation of coal" until 31 March 2023.	21 September 2022	No longer applicable. Refer to MSC Requirements 9, 10 and 11 below.
4.	Demonstrates that the remaining activities can be undertaken in the required timeframe (using remaining product coal stockpile volumes, number of truck movements / capacity and number of employees required);	23 September 2022	Section 3.2.
5.	Clarifies whether the remaining activities will be undertaken 24 hours a day, 7 days a week;	23 September 2022	Section 3.2 and Appendix A.
6.	Considers a commitment that maintenance requirements for Muscle Creek Road under Cond 10 will continue as per the existing arrangements with Council; and that any change to maintenance arrangements will be addressed in a separate modification currently in the planning process.	23 September 2022	Section 3.2.
7.	 Could you please also include two figures in the Modification Report showing: The location of the product coal storage areas at an appropriate scale, see attached for example scale; and Haulage Route to RCT (for completeness). 	23 September 2022	Section 1.1
8.	Also, please note that the Submissions Report for the separate modification to "Realign Rehabilitation Objectives" will need to incorporate the captioned modification by either updating with changes (if approved) or including as "proposed changes subject to a separate modification", depending on the submission timeline from MCC.	23 September 2022	Noted. To be addressed in the separate "Realign Rehabilitation Objectives" modification.
9.	Leave the definition of Mining Operations as per the approved definition i.e Includes the removal of overburden and extraction, processing, handling, storage and transportation of coal on site;	28 September 2022	Proposal to amend definition of Mining Operations removed from Modification Report.

Table 1 – MSC Requirements for Modification of DA 205/2002



MSC	Requirement	Date of Request	Where addressed
10.	Remove the proposed definition for "Coal Haulage";	28 September 2022	Proposed inclusion of a definition for Coal Haulage removed from Modification Report.
11.	Update Condition 4 "Period of Approval" to read generally as follows – 'The Applicant may carry out mining operations until 31 December 2022, with the exception of handling, storage and transportation of coal. Handling, storage and transportation of coal may be carried out until 31 March 2023.'	28 September 2022	Proposed modification to condition wording updated to align with Council's request.
12.	Remove the change to Condition 10. The reference to "coal haulage" will also need to be removed from Section 3.2 (end of first paragraph).	28 September 2022	Proposal to amend condition 10 removed from Modification Report.
			Reference to coal haulage removed from Section 3.2 .



2. STRATEGIC CONTEXT

As identified in **Section 1.2**, coal mining and coal processing will cease in December 2022, however, MCC is seeking to continue the handling and storage of coal on site using existing infrastructure and transporting of coal off site until 31 March 2023. The proposed modification is to account for delays caused by equipment/labour shortages and unseasonal weather as well as identification of additional coal resources. There will be no changes to approved mining operations, except for a three-month extension for coal storage, handling and transport of coal.



3. DESCRIPTIONS OF THE MODIFICATIONS

3.1. Proposed Changes to DA 205/2002 Conditions

The key drivers for modifications to conditions in DA 205/2002 have been identified as:

- Identification of additional coal the remaining coal resource has been found to be greater than what was modelled, and this coal would become sterilised if not mined by MCC prior to closure of the site.
- **Unseasonal weather** higher than average local and regional rainfall and associated flooding events along the rail network have resulted in disruptions and some delays in the mining, processing and transporting coal at the site.
- Equipment and labour shortages MCC's coal haulage contractor was unable to extend their haulage contract due to other commitments and during the transition to an alternate option, MCC has had difficulties sourcing haulage contractors with equivalent capacities, in terms of size of trucks and number of trucks. This has resulted in reduced coal haulage volumes.

Due to these unforeseen circumstances the Site is accommodating more stockpiled coal than anticipated. MCC has been unable to facilitate coal transportation at expected capacities because of weather and contractor issues. Accordingly, MCC expects that it cannot transport all coal offsite by the current December 2022 deadline under the current consent. In anticipation, MCC is seeking a short extension of time for coal handling and storage purposes only so that it can lawfully transport the coal offsite and prepare the site for its decommissioning and rehabilitation phase.

Appendix A details the proposed changes to the development consent conditions along with the reasoning and justification for the proposed changes.

3.2. Proposed Changes to Mining Operations

The site is currently approved to conduct mining operations until 31 December 2022. For the reasons noted in **Section 3.1**, the site requires a continuation of coal storage, handling and transport until 31 March 2023. Mining operations and coal processing will be completed by 31 December 2022, as per the current approval, and the proposed extension to coal storage, handling and transport will not affect the existing decommissioning and rehabilitation schedule for the site. Coal haulage operations will continue to be undertaken up to 24 hours a day, 7 days per week, as approved. The maintenance of Muscle Creek Road under Condition 10 of DA 205/2002 will continue as per approved arrangements with Council.

Based on the current haulage fleet, approximately 110,000 tonnes of product coal is expected to be stockpiled at the site at the end of December 2022 and it is anticipated that all coal will be hauled from site by the end of March 2023. Haulage capacity is expected to increase during this time which may vary this expected completion date.

The current haulage fleet comprises four trucks, each completing 10 round trips per day. If the fleet is to increase as expected, this will increase to eight trucks, each completing 10 round trips per day.

The workers required for the additional three months of coal haulage will be limited to the truck drivers, a loader operator, and associated support personnel.

Table 2 provides an overview of the modifications and a comparison with approved operations.

3.3. Modification Category

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 given the proposed modification is likely to have minimal environmental impact.



Table 2 – Current Approved Operation and Proposed Modification to Operations

Aspect	Approved Operations (2016)	Modification		
Construction	Construction			
Not applicable, no furthe	r construction is proposed at MCM			
Operation				
Mine Life	Completion of operations by 31 December 2022.	Extension of coal storage, handling and transport until 31 March 2023.		
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.		



Aspect	Approved Operations (2016)		Modification	
Hours of Operation	Open cut mining up to 24 Hours a day, 7 days a week Blasting 9am – 5pm Mondays to Fridays		Inclusion of hours of operation for coal storage, handling and transport. The coal haulage hours of operation will continue up to 24 hours a day, 7 days per week, as approved.	
Employee Numbers	Up to 95 full - tir	me equivalents (FTEs) with additional contractors	as required.	No change.
Rehabilitation				·
Rehabilitation Objectives	Mine site (as a whole of the disturbed land and water) Sa Fir Fir ru Rehabilitation materials M. Materials Landforms Fir Fir Fir CO Final voids M. Landforms Water Quality W Water flora and fauna habitat and corridors Siz Sp Gir final spicultural agricultural pursuits Siz Sp Gir Ramana spicultural agricultural	bjectives ife, stable and non-polluting, fit for purpose of the intended post-mining nd uses(s). nal landforms designed to incorporate natural micro- relief and natural rainage lines, which, where reasonable and feasible, further avoid straight in drainage lines, which, where reasonable and feasible, further avoid straight in drainage lines, which, where reasonable and feasible, further avoid straight in drainage lines, which, where reasonable and feasible, further avoid straight in drainage lines, which, where reasonable and feasible, further avoid straight in drainage lines, which, where reasonable and feasible, further avoid straight in drainage lines, which, where reasonable and feasible, further avoid straight in drainage drop structures, to integrate with surrounding landforms. laterials (including topsolis, substrates and seeds of the disturbed areas) e recovered, appropriately managed and used effectively as resources the rehabilitation. nal landforms sustain the intended land use for the post-mining domain(s). nal landforms incorporate design relief patterns and principles for misstency with natural drainage. liminise to the greatest extent practicable: The drainage catchment of the final void Any high wall instability risk Risk of flood interaction (flows in and out of the void) laximise, to the greatest extent practicable, integration of the final void ndform with the natural terrain features of the surrounding landscape. later retained on site should be fit for the intended land use(s) for the stabilished to sustain biodiversity habitats. secies are selected that re-establish and complement regional and local versity. Ne Native Vegetation Betl / Fauna Corridor links with the existing segetation near Bells Mountain and Skelletar Ridge. Ne land capability classification for the relevant nominated gicultural pursuit for a ch domain is established and self-sustaining with the aim of being chieved within 5 years of land use establishment.		No change.
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.	



Aspect	Approved Operations (2016)	Modification
Rehabilitation Plan/Strategy	· · · · · · · · · · · · · · · · · · ·	
	In addition, a Rehabilitation Strategy is required to discuss the establishment of habitat corridors, re- establishment of native species, stabilisation of slopes, re-foresting, 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.	
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.
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.	No change.
	The Closure Plan has been prepared and submitted to MSC for review and approval however to date it has not been approved by MSC.	

These proposed changes do not result in any changes to, or any additional environmental impacts beyond that currently approved. This is discussed further in **Section 6.**



3.4. 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.

The EIS titled "Muswellbrook Coal Company Limited, No. 1 Open Cut Extension Environmental Impact Statement 2022" dated July 2002 and prepared by HLA-Envirosciences, which the original consent was granted for, identified that coal would be stored in numerous stockpiles with a capacity of 300,000t. The EIS further advised that coal would continue to be transported from the mine to the RCT utilising highway trucks of a 25t or 38t capacity and via the haulage route comprising the private coal haul road, Muscle Creek Road and the New England Highway. The EIS also noted the possibility of coal being transported to Macquarie Generation, which no longer occurs.

The proposed modification will maintain a coal stockpile capacity less than 300,000t and the coal will continue to be transported in the manner consistent with the original EIS, utilising road registered highway trucks and the same haulage route.

For these reasons, this modification has been demonstrated to be 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 and the originally approved development consent are substantially the same because:

- All aspects of the approved development will remain the same, except for continued coal haulage (storage, handling and transport) for an additional three months.
- The already approved impacts related to coal stockpiling and haulage will remain the same, other than the small increase in the duration of coal haulage activities.
- The extension to the duration of coal storage and haulage will not affect any other aspect of the site, including decommissioning and rehabilitation activities.

Several conditions require modification to allow the continuation of coal haulage until 31 March 2023. **Appendix A** details the proposed changes to the development consent conditions along with the reasoning and justification for the proposed changes.



4. STATUTORY CONTEXT

4.1. NSW Legislation

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

4.1.1. 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 96 of the EP&A Act 1979 granted in 2016.

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

(1A) <u>Modifications involving minimal environmental impact.</u> 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 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.

4.1.2. 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**.



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 Error! Reference source not found.
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 B
	Note the change is administrative. Lot 102 DP578075 is the current Schedule of land has been replaced by Lot 3 DP 1220491 and Lot 4 DP1220491. There is no change in development consent 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 Error! Reference source not found. and Appendix A No change to mine footprint or layout
Whether the modification is intended to—	Section 3.3
(i) merely correct a minor error, misdescription or miscalculation, or	
(ii) have another effect specified in the modification application,	
A description of the expected impacts of the modification	Section 6
An undertaking that the modified development will remain substantially the same as the development originally approved	Section 3.4
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

Table 3 – EP&A Regulation Modification Requirements

4.1.3. 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 involves minimal change to approved operations wholly located within the existing 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 would not impact on vegetation that has the potential to provide habitat for koalas as no additional clearing is proposed.

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 will not result in any change to mining methods or coal processing, and no additional onsite infrastructure is proposed. Assessments are being conducted as part of detailed mine closure planning for MCM to identify any contamination associated with the currently approved operations.

4.1.4. 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 an RMP in place for current operations, in accordance with the rehabilitation reforms undertaken by the NSW Resources Regulator. The RMP will be updated with details from this modification where required once approval has been granted.

4.1.5. 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.

No changes in production will occur as a result of this modification. MCC will continue operations under EPL 656.

4.1.6. 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 as part of this modification, and there will be no changes that would impact on groundwater.

4.1.7. 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 will not have any impacts in this regard as no additional clearing is proposed.

4.1.8. 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.

4.2. Commonwealth Legislation

4.2.1. 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 Climate Change, Energy, the Environment and Water.

The Statement of Environmental Effects (SoEE) (EMM 2016) concluded that MCC was unlikely to have a significant impact on MNES and a referral was not required. Due to the nature of this proposed modification, there remains no requirement to refer this modification.



5. STAKEHOLDER ENGAGEMENT

5.1. Regulator Consultation

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

Date	Government Department	Method of Consultation	Items Discussed	
8 September 2022	MSC	Meeting	Initial discussions with MSC regarding development consent changes proposed by MCC.	
12 September 2022	MSC	Letter	Provision of a letter outlining the proposed modification, as requested by MSC.	
19 September 2022	MSC	Meeting	Attendance at MSC's State Significant Development Committee meeting.	
21 September 2022	MSC	Email	Email from MSC outlining their expectation of content in Modification Report (refer Section 1.3).	
	i	i		

Email

Email

Table 4 – Consultation Undertaken with Regulators for Proposed Modification

5.2. Community Consultation

MSC

MSC

23 September 2022

28 September 2022

MCC undertakes regular consultation through the Community Consultative Committee (CCC), through discussions with employees and the wider community members by operating a toll free 24-hour Environmental Contact Line (1800 600 205). The CCC is comprised of one Councillor, one council staff representative, four community representatives and two MCC representatives.

The CCC was made aware of the proposed modification on 22 September 2022 via the quarterly site update that was emailed to them.



Email from MSC regarding additional aspects to

be included in the Modification Report (refer

Email from MSC regarding revisions required to

the Modification Report (refer Section 1.3.

Section 1.3).

6. ASSESSMENT OF IMPACTS

Section 3.2 and **Table 2** of this report summarises the impacts of this modification compared with the currently approved operations under the development consent (as modified). The SoEE (EMM 2016) approved for the previous 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.

The assessment of this proposed modification remains unchanged with respect to the above considerations given this modification:

- Does not propose any change of duration of mining operations, mining method or mining footprint;
- Does not propose any changes to coal processing, coal reject or overburden management, site infrastructure or coal transport method, with the exception being a minor increase in the duration of coal haulage for an additional 3 months;
- Does not propose any changes to the final landform or final land use; and
- Does not proposed any changes to the timing of rehabilitation activities.

On this basis, MCC will continue to manage the development under the existing Environmental Management Strategy (EMS) and Environmental Management Plans.

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



Table 5 – Assessment of Predicted Impacts

Statement of Environmental Effects (EMM 2016) Predictions	Current Management/Mitigation Measures	Impacts/changes as a Result of this Modification
Noise and Blasting		
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. Nosie 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. The frequency of attended noise monitoring would be increased from twice a year to monthly. The 2016 modification predicted that the blast emissions criteria would continue to be met throughout the life of the modification.	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 which includes the management of noise from stockpiling and transportation of coal. MCC manage blasting impacts in accordance with the Blast Management Plan (BMP). Noise, overpressure and vibration emissions from mining operations at MCM typically satisfy the relevant criteria at all monitoring locations.	No change. The modification does not propose to change the mining method, coal processing, overburden management or coal transport methods already approved at MCM therefore the noise profile and vibration level associated with operations is not predicted to change. Noise levels would generally be expected to decrease following the cessation of mining operations.
Air Quality and Greenhouse Gas (GHG)		
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. 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. Existing blast fume management practices were expected to be adequate for continued operations under the modification. Estimated annual average GHG emissions for the modification were predicted to be insignificant compared to total NSW and national GHG generation.	MCC operate in accordance with the approved Air Quality Management Plan (AQMP). 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.	No change. The modification does not propose to change the mining method, coal processing, overburden management or coal transport methods already approved at MCM therefore the air quality impacts associated with operations are not predicted to change. Air quality impacts would generally be expected to decrease following the cessation of mining operations. The estimated annual average GHG emissions are not anticipated to change. GHG emissions would generally be expected to decrease as less vehicle emissions would result from the cessation of mining operations.



Statement of Environmental Effects (EMM 2016) Predictions	Current Management/Mitigation Measures	Impacts/changes as a Result of this Modification		
Geochemistry	Geochemistry			
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.	MCC operates in accordance with the Spontaneous Combustion Management Plan and the MOP.	No change. The proposed modification will not change the likelihood of spontaneous combustion at the site or alter the management/mitigation measures. The rehabilitation works to be executed as part of mine closure will aim to further mitigate the likelihood of spontaneous combustion by covering areas with a suitable layer of inert material in accordance with the Spontaneous Combustion Management Plan.		
Surface Water				
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. No change to the existing water supply arrangements were proposed.	MCC manage surface water impacts in accordance with the Water Management Plan (WMP). MCC undertake a surface water monitoring program that consists of monthly, quarterly and annual monitoring.	No change. The modification does not propose to change the mining method, coal processing, overburden management or coal transport methods already approved at MCM therefore the surface water impacts associated with operations are not predicted to change. There is no additional water management infrastructure required, and some of the current licenced features will be decommissioned and removed at closure if not required for the post mining land use.		



Statement of Environmental Effects (EMM 2016) Predictions	Current Management/Mitigation Measures	Impacts/changes as a Result of this Modification	
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 modification will not result in a change to groundwater impacts as no change to mining footprint, void geometry, mining method or water management infrastructure is proposed. Any amendments to the water licencing requirements during rehabilitation and closure will be assessed during detailed closure planning for the site.	
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 not be altered by the modification.	
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 modification does not intend any change to the existing mine footprint therefore no additional clearing is proposed. The RMP has replaced the MOP and includes management of biodiversity at the site.	



Statement of Environmental Effects (EMM 2016) Predictions	Current Management/Mitigation Measures	Impacts/changes as a Result of this Modification		
Visual	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 modification 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 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.		
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 extension of duration of coal haulage will not result in an increase of waste generation beyond what already occurs.		



Statement of Environmental Effects (EMM 2016) Predictions	Current Management/Mitigation Measures	Impacts/changes as a Result of this Modification
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 modification will not result in changes to the approved total volumes of coal produced or transported from MCM, and there is no change to employee numbers. In fact, as the site approaches closure, there will be a reduction in vehicles driving to site as employee numbers are reduced and there is less requirement for contractors or the delivery of goods.
		Product coal will continue to be trucked off site via Muscle Creek Road and the New England Highway to the Ravensworth Coal Terminal (RCT) for train loading.
		Coal haulage activities will remain the same as is currently undertaken (i.e. same stockpiling, handling and transportation, including transport route and hours of operation); however it is proposed that it will extend for an extra three months from what is currently approved.
		Road maintenance will continue as is currently agreed.
Rehabilitation		
The 2016 modification stated that rehabilitation activities are completed progressively, and include filling mined voids with overburden material, planting a combination of pasture and native trees so that vegetation is consistent with the local area, establishment of a vegetation corridor, weed control and rehabilitation monitoring. Rehabilitation aims to make the site compatible with the surrounding land, and have safe and stable final voids, in accordance with the approved MOP.	Rehabilitation has traditionally been carried out in accordance with an approved MOP, which was replaced with an RMP in mid-2022.	The modification will not impact on rehabilitation progression as currently outlined in the RMP.



7. JUSTIFICATION OF THE MODIFIED PROJECT

MCM is an existing mine which has successfully operated since 1907 and continues to do so within its existing mining authorities and development consent boundary. This modification includes the storage, handling and transport of coal from the site for an additional three months. No other aspect of the current approved mine is to change.

This modification does not require any change to mining footprint or area and is considered to be substantially the same development as that originally approved.

Several conditions require modification to allow the continuation of coal haulage until 31 March 2023. **Appendix A** details the proposed changes to the development consent conditions along with the reasoning and justification for the proposed changes.

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 environmental impacts of the development remain unchanged to those previously predicted in the previous modification (EMM 2016). The potential implications of the modification remain unchanged given the existing environmental management and mitigation measures in place at MCM and the minor nature of the modification.

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 has negligible potential to adversely affect the health, diversity or productivity of the environment 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 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 does not pose a significant threat to local biological diversity or ecological integrity as there is no proposed change to mining footprint as part of the modification. 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. The modification will allow MCM to complete transport of the coal mined at the site.

For the above reasons, MCC submit that it would be in the public interest for MSC to grant the modification.



8. **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
- HLA-Envirosciences Pty Ltd (2002) *Muswellbrook Coal Company Limited, No 1 Open Cut Extension* Environmental Impact Statement 2002
- MCC (2022) Rehabilitation Management Plan, CCL713 (Act 1973), ML1304 (Act 1992) AND ML1562 (Act 1992)





INTEGRATED ENVIRONMENTAL MANAGEMENT AUSTRALIA

APPENDIX A

Proposed Changes to DA 205/2002

Existing	Condition	Proposed Condition (text marked in RED shows the proposed changes)
General	Conditions	•
2	Adherence to Adherence to terms of DA, EIS, etc.	Adherence to Adherence to terms of DA, EIS, etc.
	The development must be carried out in accordance with the conditions of this consent and generally in accordance with:	The development must be carried out in accordance with the conditions of this consent an generally in accordance with:
	i. The accompanying SEE titled "Muswellbrook Coal Continuation Project, 1 & 2" by EMM dated	i. Modification Report prepared by IEMA dated September 2022.
		iii The accompanying SEE titled "Muswellbrook Coal Continuation Project, 1 & 2" by EMM date
	ii. "Muswellbrook Coal Continuation Project Response to Submissions" dated 20 July 2016.	April 2016.
	iii. the EIS titled "Muswellbrook Coal Company Limited, No. 1 Open Cut Extension Environmental Impact Statement 2002" dated July 2002, prepared by HLA-EnviroSciences Pty Limited and	# iii. "Muswellbrook Coal Continuation Project Response to Submissions" dated 20 July 2016.
	certified in accordance with Section 78A(8) of the EP&A Act;	iii. iv the EIS titled "Muswellbrook Coal Company Limited, No. 1 Open Cut Extension Environmenta Impact Statement 2002" dated July 2002, prepared by HLA-EnviroSciences Pty Limited an
	iv. The accompanying Statement of Environmental Effects document by Hansen Bailey dated	certified in accordance with Section 78A(8) of the EP&A Act;
	August 2010. Where there is an inconsistency between two or more of the above documents, the most recent	iv. <u>v</u> The accompanying Statement of Environmental Effects document by Hansen Bailey date August 2010.
document prevails to the extent of that inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.	Where there is an inconsistency between two or more of the above documents, the most recer document prevails to the extent of that inconsistency. However, the conditions of this consent sha prevail to the extent of any inconsistency.	
4	Period of Approval	Period of Approval
	The Applicant may out carry mining operations until 31 December 2022. Note: Under this consent, the Applicant is required to rehabilitate the site to the satisfaction of	The Applicant may carry out mining operations until 31 December 2022, with the exception of handling, storage and transportation of coal. Handling, storage and transportation of coal may b carried out until 31 March 2023.
Council and the DRE. 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 has been carried out satisfactorily.	Note: Under this consent, the Applicant is required to rehabilitate the site to the satisfaction of Council and the DRE. 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 has been carried our satisfactorily.	
Mine Ma	nagement	1
8	Hours of Operation	Hours of Operation
	The maximum hours of operation at the development shall be as follows:	The maximum hours of operation at the development shall be as follows:
	Open Cut Mining up to 24 hours, 7 days	Open Cut Mining up to 24 hours, 7 days
	Blasting 9am-5pm Mondays to Fridays.	Coal storage, handling and transportation up to 24 hours, 7 days
	Note: Blasting hours may be extended outside these times where there is a demonstrated safety	Blasting 9am-5pm Mondays to Fridays.
	need and with the approval of Council.	Note: Blasting hours may be extended outside these times where there is a demonstrated safet need and with the approval of Council.

	Reason
and	This Modification Report will become an approved document, outlining all proposed changes that will form part of this Modification Application and therefore will need to be included in Condition 2.
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cent hall	
n of / be	To extend approval of coal handling, storage and transportation until 31 March 2023.
n of ther out	
	To extend approval of coal handling, storage and transportation until 31 March 2023.
fety	



INTEGRATED ENVIRONMENTAL MANAGEMENT **AUSTRALIA**

APPENDIX B Schedule of Lands

Schedule of Land

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

Lot	Deposited Plan (DP)	Owner
5*	26760	MCC
6*	26760	MCC
20*	16352	MCC
102 *	578075	MCC
<u>3*</u>	<u>1220491</u>	MCC
<u>4*</u>	<u>1220491</u>	MCC
71*	629631	МСС
101*	1148216	MCC
1*	46760	МСС

Notes:

1. *Part of block within DA Boundary

2. Schedule of Land applies to those areas of land within the DA Boundary