ENVIRONMENTAL MANAGEMENT STRATEGY (EMS)

APPROVED BY MSC

DATE: JUNE 2017

<table>
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<tr>
<th>Version</th>
<th>Date</th>
<th>Section Modified</th>
<th>Reason for Modification</th>
<th>Review Team</th>
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<td>All</td>
<td>Original Management Plan</td>
<td>MCC Technical Services Department Carbon Based Environmental</td>
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<td>December 2010</td>
<td>All</td>
<td>5 Yearly Review</td>
<td>MCC Technical Services Department Carbon Based Environmental</td>
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<td>All</td>
<td>5 Yearly Review</td>
<td>MCC Environmental, Technical Services and Production Departments</td>
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<td>June 2017</td>
<td>All</td>
<td>Update following modification for Continuation Project</td>
<td>MCC Environmental, Technical Services and Production Departments</td>
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Approved by Senior Operations Manager: Signature on File

Date: June 2017
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1.0 INTRODUCTION
Muswellbrook Coal Company Limited (MCC) operates the Muswellbrook Open Cut Coal Mine, located approximately 3 kilometres (km) to the north east of Muswellbrook in the Hunter Valley of New South Wales (Plan 1A). MCC is a wholly owned subsidiary of Idemitsu Australia Resources Pty Limited (IAR). IAR has been operating in Australia since 1978 and is an Australian subsidiary of Japanese company Idemitsu Kosan Company Limited.

On September 1, 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. Rehabilitation activities will continue past this date.

1.1 SCOPE
The Development Consent requires the preparation, approval and implementation of an Environmental Management Strategy (EMS) and subordinate Environmental Management Plans (EMP). This EMS provides the framework for environmental management of MCC’s operations and should be read in conjunction with other EMP’s. These management plans include:
- Rehabilitation Plan
- Rehabilitation Strategy
- Mine Closure Plan
- Visual Amenity, Lighting and Landscaping Management Plan;
- Bushfire Management Plan;
- Water Management Plan;
- Air Quality Management Plan;
- Spontaneous Combustion Management Plan;
- Blast Management Plan; and
- Noise Management Plan.

This EMS has been prepared in consultation with OEH, EPA, DRE, DPI-Water and the CCC to the satisfaction of MSC (see Appendix 1 for copies of correspondence). Copies of the approved strategy have been supplied to EPA, OEH, DRE, MSB, DPI-Water and the CCC, and a copy has been placed on MCC’s website.

1.2 OBJECTIVES
The objectives of the Environmental Management Strategy are to:
- Outline legislative and statutory requirements;
- Detail the roles, responsibilities and accountabilities of personnel;
- Outline the environmental objectives and performance outcomes;
- Describe environmental and community objectives;
- Identify cumulative impacts;
• Detail the audit and review process; and
• Outline community consultation processes.
### 2.0 STATUTORY AND OTHER OBLIGATIONS

#### 2.1 PROJECT APPROVAL

The relevant approval conditions are shown in Table 1 along with information on where they are addressed in this plan.

<table>
<thead>
<tr>
<th>Approval/Licence Condition No.</th>
<th>Condition</th>
<th>Section</th>
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<tbody>
<tr>
<td></td>
<td><strong>Development Consent Requirement</strong></td>
<td></td>
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<tr>
<td>14 (a)</td>
<td>The Applicant must prepare an Environmental Management Strategy, providing a strategic context for the Environmental Management Plans. The Environmental Management Strategy must be prepared following consultation with the OEH, EPA, DRE, DPI Water and the CCC and to the satisfaction of Council.</td>
<td>This document</td>
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<tr>
<td>14 (b)</td>
<td>The Environmental Management Strategy must include, but not be limited to:</td>
<td>This document</td>
</tr>
<tr>
<td>14 (b) (i)</td>
<td>statutory and other obligations which the Applicant is required to fulfil during mining, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies;</td>
<td>2.0</td>
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<tr>
<td>14 (b) (ii)</td>
<td>definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the Environmental Officer;</td>
<td>3.0</td>
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<tr>
<td>14 (b) (iii)</td>
<td>overall environmental management objectives and performance outcomes, during mining and decommissioning of the mine, for each of the key environmental elements for which management plans are required under this consent;</td>
<td>4.0</td>
</tr>
<tr>
<td>14 (b) (iv)</td>
<td>overall ecological and community objectives for the project, and a strategy for the restoration and management of the areas affected by Mining Operations, including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives;</td>
<td>4.0</td>
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<tr>
<td>14 (b) (v)</td>
<td>identification of cumulative environmental impacts and procedures for dealing with these at each stage of the development;</td>
<td>5.0</td>
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<tr>
<td>14 (b) (vi)</td>
<td>steps to be taken to ensure that all approvals, plans, and procedures are being complied with, namely procedures:</td>
<td>9.0, 10.0</td>
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<td></td>
<td>- to receive, handle, respond to and record complaints;</td>
<td></td>
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<td></td>
<td>- to respond to any non-compliances; and</td>
<td></td>
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<td></td>
<td>- to respond to emergencies.</td>
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<td>Approval/Licence Condition No.</td>
<td>Condition</td>
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<tr>
<td>14 (b) (vii)</td>
<td>processes for conflict resolution in relation to the environmental management of the project; and</td>
<td>9.2</td>
</tr>
<tr>
<td>14 (b) (viii)</td>
<td>documentation of the results of consultations undertaken in the development of the Environmental Management Strategy.</td>
<td>Appendix 1</td>
</tr>
<tr>
<td>14 (c)</td>
<td>The Applicant must make copies of the Environmental Management Strategy available to EPA, OEH, DRE, MSB, DPI Water and the CCC and be placed on the Applicant’s website following approval by Council.</td>
<td>1.1</td>
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</table>
2.2 OTHER STATUTORY OBLIGATIONS

Whilst the Development Consent establishes criteria that are specific to MCC’s operations, there is a range of other legislation, policies, guidelines and standards that apply in a more general context. These other requirements are also incorporated into the development of this EMS and the supporting EMP’s. A summary of these other statutory obligations is provided below.

2.2.1 Legislation

The development of the EMS and subordinate EMP’s conform to applicable legislation, regulations, planning policies and guidelines. The key documents are:

- Mining Act 1992;
- Environmental Planning and Assessment Act 1979;
- Protection of the Environment Administration Act 1991;
- Protection of the Environment Operations Act 1997;
- Water Act 1912; and

2.2.2 Local Environmental Plans

The Muswellbrook Local Environmental Plan 2009 (LEP) was consulted during the preparation of the EMS and EMP’s.

2.2.3 Applicable Policies and Guidelines for Mining

**NSW Trade and Investment (Resources and Energy) Guidelines**

DRE has issued a number of environmental policies and guidelines in relation to the development of coal mines that are applicable to MCC. These include:

- AEMR Guidelines for MOPs prepared to EDG03 requirements
- Guideline ESG3 – Mining Operations Plan (MOP) Guidelines (DRE, September, 2013);
- Policy EDP11– Rehabilitation Security Deposit Policy (DRE, 2012);
- ESB26 – Rehabilitation Cost Calculation Tool V1.12 (Excel Spreadsheet Tool used to calculate mine security deposits) (DRE);
- Guideline ESB26A – Division of Resources and Energy – Schedule of Rehabilitation Costs V1.12; and
- ESG1 Rehabilitation Cost Estimate Guidelines (Industry and Investment NSW, 2010).

**NSW Department of Primary Industries – Water**

DPI-Water administers the Aquifer Interference Policy, which is applicable to MCC.

**Muswellbrook Shire Council**

MSC have a Land Use Development Strategy 2010 (Coal Mining Land Use Strategy) and a Mining Blast Management Policy 2013, which are both applicable to MCC.

3.0 PERSONNEL WITH ENVIRONMENTAL RESPONSIBILITIES

Responsibility for environmental management at MCC is designated to a number of employees on site. Under the relevant legislation there are certain roles on site that have statutory responsibility for environmental management whilst other positions are required to satisfy the requirements of conditions of consent and the EMP’s. Listed
below are the general responsibilities for relevant positions on site. More specific responsibilities relating to environmental management can be found in the respective EMP’s.

3.1 SENIOR OPERATIONS MANAGER
The Senior Operations Manager’s role within MCC operations is to provide leadership and designate authority to roles within the MCC Business. In relation to environmental management the Senior Operations Manager shall be responsible for:

- Possessing a detailed knowledge of the environmental constraints and obligations that apply to the mine site;
- Develop a thorough understanding of the environmental management programs that are in place at the mine site, including this Environmental Management Strategy;
- Provide adequate resources to manage regulatory compliance; and
- Reporting to Idemitsu on any significant environmental incidents.

3.2 ENVIRONMENTAL SUPERINTENDENT (ENVIRONMENTAL OFFICER)
Condition 13 of Development Consent DA205/2002 requires that a suitably qualified or experienced Environmental Officer is available throughout the life of the mine. In accordance with the development consent, the role and responsibility of the Environmental Officer is outlined below:

- Be responsible for the preparation of the Environmental Management Plans;
- Be responsible for considering and advising on matters specified in the conditions of consent and compliance with such matters;
- Be responsible for establishing systems to receive and respond to complaints;
- Facilitate an environmental induction and training program for all persons involved with mining and rehabilitation activities; and
- Take reasonable steps to avoid and minimise adverse environmental impacts. The Environmental Officer shall advise the Mine Manager to issue instructions to stop work if a significant adverse impact on the environment is likely to occur.

3.3 HEALTH, SAFETY AND TRAINING SUPERINTENDENT
The role of the Health, Safety and Training Superintendent in relation to environmental management is to provide systems to facilitate environmental training. The Health, Safety and Training Superintendent’s role with regard to environmental management includes the following responsibilities:

- Possessing a knowledge of the environmental constraints and obligations to the mine site; and
- Providing systems to facilitate environmental training including the induction process.
3.4 TECHNICAL SERVICES SUPERINTENDENT

The role of the Technical Services Superintendent is to undertake mine planning for MCC’s operations. The Technical Services Superintendent’s role with regard to environmental management includes the following responsibilities:

- Possessing a knowledge of the environmental constraints and obligations to the mine site; and
- Planning mining operations in accordance with the Mining Operations Plan and the Environmental Management System.

3.5 PRODUCTION SUPERINTENDENT

The role of the Production Superintendent is to organise and manage production team employees and their production performance. The Production Superintendent’s role with regard to environmental management includes the following responsibilities:

- Possessing a knowledge of the environmental constraints and obligations to the mine site;
- Direct and allocate resources and equipment for rehabilitation and environmental remediation works; and
- Assist in the development and delivery of environmental training packages to production staff.

3.6 OPEN CUT EXAMINER

The role of the Open Cut Examiner is to manage production team employees and the production performance. The Open Cut Examiner’s role with regard to environmental management includes the following responsibilities:

- Possessing a knowledge of the environmental constraints and obligations to the mine site;
- Undertaking pre-shift inspection of mining operations to identify hazards and potential hazards;
- Investigate complaints and modify operations accordingly; and
- Effectively manage environmental control systems, including dust suppression and surface water management.

3.7 MAINTENANCE SUPERINTENDENT

The Maintenance Superintendent is responsible for maintaining all plant and equipment in an efficient and effective manner. In relation to environmental management the Maintenance Superintendent is responsible for:

- Allocating sufficient resources for the adequate maintenance of plant and equipment; and
- MCC plant and equipment are maintained to a standard that minimises impact on environmental requirements.

3.8 ALL PERSONNEL

All personnel working at MCC are responsible for:

- Reporting all environmental incidents to their supervisor; and
• Carrying out work duties at all times in an environmentally sensitive and responsible manner.

4.0 ENVIRONMENTAL OBJECTIVES
Strategies have been developed to effectively manage environmental issues at MCC. These strategies are incorporated into the relevant EMP’s for implementation on site.

The general environmental strategies for MCC are:
• Compliance with statutory, legislative and consent conditions that govern mining operations;
• Minimisation of mining impacts on the community and environment;
• The timely and efficient response to any environmental incidents and complaints;
• Creation of an economically viable stable landform at the conclusion of mining operations;
• Rehabilitation of all disturbed land and promotion of habitat re-instatement areas; and
• Continually monitor, review and report on environmental sampling programs.

4.1 ECOLOGICAL OBJECTIVES
Objectives that will improve the ecological values within the mine area include:
• Improving the quality of existing vegetation by the control of weeds;
• Improving habitat for fauna by providing connectivity between remnant woodlands and the rehabilitated mine area;
• Control of feral animals; and
• Use of local indigenous species.

More detail on ecological objectives and strategies for the restoration and management of the mine site can be found in the Rehabilitation Plan and Rehabilitation Strategy.

4.2 COMMUNITY OBJECTIVES
MCC has operated in the vicinity of the Muswellbrook township for over a century and has established relationships with the local community. The principal community objectives are therefore to:
• Continue to maintain open communication with the community;
• Maximise the economic benefits to the local area;
• Minimise environmental impacts; and
• Be proactive in addressing any concerns that the community may express.

5.0 CUMULATIVE IMPACTS
The Upper Hunter Region has extensive coal resources and a number of mines have been developed in the area. Potential therefore exists for a number of these mines to develop cumulative impacts that need to be identified and managed in a responsible manner. The following section addresses potential areas of cumulative impact and details the procedures to be implemented to manage these impacts.
5.1 WATER

Water has been identified as a potential cumulative issue as the harvesting of surface water or the lowering of groundwater levels by a number of mines may have an overall cumulative impact that reduces the availability of these resources to other users.

In terms of surface water, there are eight catchments covering the current operational area. Runoff from these catchments forms a part of the mine water balance and is not currently discharged offsite. The mine catchments occur mainly in the Sandy Creek and Muscle Creek catchment areas.

Mining at MCC will not significantly affect surface water quality of surrounding lands. Clean water will continue to be segregated from mine water via the maintenance of drains, diversion channels, sedimentation and mine water dams. The continued mining will have negligible impact on local and regional watersheds, so no overall cumulative impact is expected to occur.

There will be a negligible large scale impact on groundwater levels and aquifers from mining at MCC.

There will be no impact in terms of effects upon the beneficial use of groundwaters or on high-quality alluvial aquifers. There are no registered water bores near MCC that are likely to be impacted. Likewise, there are no substantial alluvial aquifers in the area of the mine. The nearest alluvial lands are located 3km to the west along the Hunter River and are unlikely to be affected by MCC.

Should operations at MCC result in adverse impacts occur on water supply to private landowners, action will be taken in accordance with the Water Management Plan.

5.2 AIR QUALITY

Other operating mines or approved mines nearest to Muswellbrook include Drayton Coal, Mt Arthur Coal, Bengalla Mine, Mount Pleasant Mine and Dartbrook Mine, which are all further southwest/northwest to MCC (these mines are at various stages of development). Under south easterly wind conditions, these mines will have their lowest impact on Muswellbrook residences when MCC is having its greatest impact. Conversely, nearby mines will have their maximum impact on Muswellbrook residences when winds are from the west to northwest, whilst MCC’s operations are having their least impact.

Due to the location of the other mines, there will be minimal cumulative impact on other areas, such as Woodlands Ridge, Muscle Creek and McCully’s Gap. There have been relatively few, if any, instances where cumulative effects have been experienced as a result of air quality impacts from MCC in conjunction with neighbouring mines. If cumulative effects start to be identified, MCC will work with the other mining operations to manage these cumulative impacts.

5.3 NOISE
Other operating mines or approved mines nearest to Muswellbrook include Drayton Coal, Mt Arthur Coal, Bengella Mine, Mount Pleasant Mine and Dartbrook Mine, which are all further southwest/northwest to MCC (these mines are at various stages of development). Under south easterly wind conditions, these mines will have their lowest impact on Muswellbrook residences when MCC is having its greatest impact. Conversely, nearby mines will have their maximum impact on Muswellbrook residences when winds are from the west to northwest, whilst MCC's operations are having their least impact. Due to the location of the other mines, there will be minimal cumulative impact on other areas, such as Woodlands Ridge, Muscle Creek and McCully’s Gap. There have been relatively few, if any, instances where cumulative effects have been experienced as a result of noise impacts from MCC in conjunction with neighbouring mines. If cumulative effects start to be identified, MCC will work with the other mining operations to manage these cumulative impacts.

5.4 VISUAL IMPACTS
MCC will have a negligible cumulative visual impact with other coal mines or industrial developments due distance between mining operations.

5.5 BLASTING IMPACTS
There are no mines immediately adjacent to MCC. Residents that are closest to MCC are distant from other mining operations in the Muswellbrook district and vice versa. In a similar manner to air quality and noise impacts, it is unlikely that MCC will give rise to cumulative impacts on Muswellbrook residents.

MCC will use best endeavours to liaise with other nearby mines on a regular basis to co-ordinate blasting activities, to minimise the possibility of MCC blasts occurring simultaneously with those initiated by another nearby mine.

5.6 LOSS OF VEGETATION AND HABITAT IMPACT
There will be a localised minor cumulative impact with the temporary loss of vegetation and faunal habitat due to MCC. The planned revegetation of much of the mined land with habitat suitable for fauna will alleviate this impact. The revegetation plan specifically seeks to establish a habitat corridor between Bells Mountain and Skeletar Ridge. More details on this corridor are shown in the Mining Operations Plan/Rehabilitation Plan.

6.0 AUDIT AND REVIEW PROCESS
The audit and review process will incorporate a range of audits and reviews. The following steps shall be undertaken to manage compliance with all approvals, licences, plans and procedures.
6.1 SITE INSPECTIONS
Regular site inspections are undertaken to assess the environmental performance of the operations. Any actions arising from these inspections are communicated to relevant personnel for rectification.

6.2 MONITORING
MCC maintain a comprehensive environmental monitoring program to identify any unauthorised impacts on the environment. Details on the monitoring programs are found in the respective management plans (e.g. noise monitoring in the Noise Management Plan). The results from this monitoring program are reviewed on a regular basis. If the results identify there is an unacceptable environmental impact from MCC’s operations, adaptive management process are put in place to mitigate the environmental impact. Key monitoring results are reported to the community via the website, at Community Consultative Committee meetings and in the Annual Environmental Management Report.

6.3 INDEPENDENT ENVIRONMENTAL COMPLIANCE AUDIT
In accordance with the Project Approval, every three years (or as otherwise agreed to by MSC) MCC will fund an Independent Environmental Audit that will be performed by an independent third party that has been endorsed by MSC. The audit will include consultation with relevant agencies.

These environmental audits will assess the environmental performance of MCC and compliance against the predictions in the EIS, conditions of the Project Approval, mining leases, water licences and Environmental Protection Licence, and review the adequacy of strategies, plans and/or programs and recommend measures or actions to improve the environmental performance of MCC.

6.4 REVIEW OF THE ENVIRONMENTAL MANAGEMENT STRATEGY
The Environmental Management Strategy will be reviewed;
- Within 3 months of changes to Development Consent conditions;
- Following an independent environmental audit which recommends changes to the Environmental Management Strategy; and
- Every three years, or as directed by MSC, in accordance with Condition 14(e) of the Development Consent Conditions.

7.0 REPORTING
7.1 ANNUAL ENVIRONMENTAL MANAGEMENT REPORT
An Annual Environmental Management Report (AEMR) is to be prepared and submitted throughout the mining operations and for five years after the completion of mining (or as otherwise agreed by MSC) in accordance with Condition 42 of the Development Consent Conditions.
7.1.1 Annual Compliance Review
A detailed compliance review of the performance of the project against the conditions of the consent and statutory approvals will be completed annually. From this detailed review, a summary of any non-compliances and actions taken to address the non-compliances will be included in the AEMR.

7.2 ENVIRONMENTAL PROTECTION LICENCE ANNUAL RETURN
As a condition of Environmental Protection Licence (EPL) 656, MCC is required to submit an annual report to EPA detailing compliance (or otherwise) with the conditions of the EPL.

8.0 COMMUNITY CONSULTATION
MCC has maintained a close relationship with the Muswellbrook community since mining began in 1907. MCC acknowledges the importance of consulting with landowners and residents in the area. MCC is committed to building strong relationships with the local community by open and transparent communication.

8.1 COMMUNITY CONSULTATIVE COMMITTEE
To further develop the relationship and build upon the partnerships formed within the local community, MCC actively participates in the Community Consultative Committee (CCC). The CCC meets quarterly at MCC offices. The objective of the CCC is to provide an effective communication mechanism to provide members of the local community with adequate information on mining and environmental matters.

8.2 COMMUNITY RELATIONS
Other community relations activities at MCC include:
- Providing a timely and professional response to questions raised by community members in relation to mining operations;
- Encourage and foster personal contact with those residents living in close proximity to the mining operations;
- Distribute environmental information to the community through newsletters, the website, community inquiries, the local council, Community Consultative Committee and the Annual Environmental Management Report; and
- Encourage and host site visits of the operations from interested community members.

9.0 COMPLAINT MANAGEMENT AND CONFLICT RESOLUTION
9.1 COMPLAINT MANAGEMENT
MCC operate a free 24-hour Environmental Contact Line, where residents can leave details about an inquiry they may have regarding mining operations and this message is passed onto site personnel. The Environmental Contact Line number is 1800 600 205 and is advertised quarterly in the Muswellbrook Chronicle and the Hunter Valley News throughout the wider Muswellbrook community.
Initial responses to any complaint are provided within 24 hours of the complaint being received. As part of the response to any complaint a review of the current mining operations will be undertaken. If required and possible, immediate operational changes will be made to reduce any impact on the community. In some cases the issues cannot be resolved immediately and ongoing actions might be required to resolve the issue. All complaints are recorded and maintained for at least four years. The following information is recorded for each complaint.

a) the date and time of the complaint;
b) the method by which the complaint was made;
c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
d) the nature of the complaint;
e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
f) if no action was taken by the licensee, the reasons why no action was taken.

9.2 CONFLICT RESOLUTION
If a dispute arises, MCC will explore all feasible actions that may be possible to resolve the dispute between the parties involved. If the dispute cannot be resolved either party can refer the dispute to MSC who may initiate the Independent Dispute Resolution Process, which forms part of the Conditions of Consent.

10.0 EMERGENCY RESPONSE
All environmental emergencies are managed in accordance with MCC’s Emergency Response Control Plan.

11.0 RESPONSIBILITIES
In addition to the responsibilities shown in Section 3.0, Table 2 outlines the direct responsibilities relating to the EMS.

<table>
<thead>
<tr>
<th>Position</th>
<th>Task</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Operations Manager</td>
<td>Provide adequate resources to implement the requirements of the EMS</td>
<td>Annual review</td>
</tr>
<tr>
<td>Environmental Superintendent</td>
<td>Coordinate reviews of the EMS</td>
<td>As outlined in the EMS</td>
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</table>
Appendix 1: Correspondence Regarding Environmental Management Strategy
4 April 2017

Hannah Grogan  
Water Regulation Officer  
Department of Primary Industries – Water  
PO Box 2213  
DANGAR, NSW 2309

Dear Hannah

Consultation on Environmental Management Strategy

Muswellbrook Coal Company (MCC) received a modification to our Development Consent (DA205/2002) on 26 October 2016. The modification allows MCC to continue mining in an area known as the “Continuation Project”.

Condition 14 of the modified consent requires the preparation of an Environmental Management Strategy in consultation with Division of Resources and Energy (DRE), Environmental Protection Authority (EPA), Office of Environment and Heritage (OEH) and Department of Primary Industries – Water (DPI-Water) to the satisfaction of Muswellbrook Shire Council (MSC).

Please find enclosed a copy of the Environmental Management Strategy for your review and comment. MCC are required to submit the Environmental Management Strategy to MSC by 26th April 2017 so it would be appreciated if any comments are sent to MCC by Friday 21st April 2017.

If you require any further information on the Environmental Management Strategy or would like to discuss your comments directly with MCC, please do not hesitate to contact me on 02 6542 2312, 0427 228 412 or julie.thomas@muscoal.com.au.

Yours sincerely

Julie Thomas  
Environmental Coordinator
Consultation on Environmental Management Strategy

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Yours sincerely

Julie Thomas
Environmental Coordinator
4 April 2017
Office of Environment and Heritage
Locked Bag 1002
DANGAR, NSW, 2309

Consultation on Environmental Management Strategy

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Condition 14 of the modified consent requires the preparation of an Environmental Management Strategy in consultation with Division of Resources and Energy (DRE), Environmental Protection Authority (EPA), Office of Environment and Heritage (OEH) and Department of Primary Industries – Water (DPI-Water) to the satisfaction of Muswellbrook Shire Council (MSC).

Please find enclosed a copy of the Environmental Management Strategy for your review and comment. MCC are required to submit the Environmental Management Strategy to MSC by 26th April 2017 so it would be appreciated if any comments are sent to MCC by Friday 21st April 2017.

If you require any further information on the Environmental Management Strategy or would like to discuss your comments directly with MCC, please do not hesitate to contact me on 02 6542 2312, 0427 228 412 or julie.thomas@muscoal.com.au.

Yours sincerely

Julie Thomas
Environmental Coordinator
Kate Walsh – Inspector Environment  
Division of Resources & Energy  
PO Box 344  
HUNTER REGIONAL MAIL CENTRE, NSW  2310

Dear Kate

Consultation on Environmental Management Strategy

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Yours sincerely

Julie Thomas
Environmental Coordinator
Dear Ms Thomas


I am writing in reference to your letter dated 4 April 2017 regarding Environmental Management Strategy (EMS) consultation. DPI Water has reviewed the EMS and provides the following advice.

DPI Water is satisfied with the draft EMS and considers it consistent with the previous version which was reviewed and updated in consultation with DPI Water in December 2015.

Please contact Hannah Grogan, A/Senior Water Regulation Officer (Newcastle) on (02) 4904 2516 or Hannah.grogan@dpi.nsw.gov.au if you have further enquiries regarding this matter.

Yours sincerely

Irene Zinger
Regional Manager – Metro
Water Regulation Operations

19 April 2017
Ms Julie Thomas
Environmental Coordinator
Muswellbrook Coal Company
PO Box 123
MUSWELLBROOK NSW 2333

Dear Ms Thomas

Environmental Protection Licence 656
Muswellbrook Coal Company Limited, Draft Environmental Management Strategy

Reference is made to your email of 4 April 2017 to the Environment Protection Authority ("EPA") in relation to your draft Environmental Management Strategy.

The EPA encourages the development of such plans to ensure that proponents have met their statutory obligations and designated environmental objectives. However, the EPA does not review these documents as our role is to set environmental objectives for environmental/conservation management, not to be directly involved in the development of strategies to achieve those objectives.

The EPA has not reviewed this report and accordingly offers no comments in relation to it.

If you wish to discuss the matter further please contact me on 02 4908 6891.

Yours sincerely

JENNY LANGE
Regional Operations Officer - Hunter
Environment Protection Authority

Contact officer: JENNY LANGE
4908 6891
Ms Julie Thomas  
Environmental Coordinator  
Muswellbrook Coal Company Limited  
julie.thomas@muscoal.com.au

Dear Ms Thomas,

Muswellbrook Coal Company - Consultation on Draft Environmental Management Strategy

I refer to your letter dated 4 April 2017 inviting the Office of Environment and Heritage (OEH) to comment on the draft Environmental Management Strategy (EMS). OEH understands that this document has been prepared in accordance to Condition 14 of the modified consent for the Muswellbrook Coal Mine.

OEH encourages the development of such plans to ensure that proponents have determined how they will meet their statutory obligations and designated environmental objectives. However, we do not approve or endorse these documents as our role is to set environmental objectives for environmental/conservation management, not to be directly involved in the development of strategies to achieve those objectives.

OEH understands that the EMS provides the framework for the various subordinate Environmental Management Plans (EMPs) that have been prepared for this project, including the Rehabilitation Plan, Rehabilitation Strategy and Mine Closure Plan. The EMPs provide the detailed performance measures for the operation of the mine. Therefore, OEH recommends that the EMS has greater use of cross-referencing between the EMPs so that it is clear where more refined objectives and limits exist and where such details may be found. This includes Section 5.6 of the EMS where it is not clear from the text where planned revegetation is being targeted between Bells Mountain and Skeletar Ridge. This could be resolved by either cross referencing or the inclusion of a map in the EMS.

OEH also recommends that more details are provided in Section 6.2 (Monitoring), which may be undertaken by way of examples of the monitoring programmes in place (what is measured, how it is measured, where it is measured, how frequently it is measured etc). Alternatively this may be addressed by greater use of cross referencing to relevant EMPs. It would be useful to know if the monitoring results are also used for adaptive management by Muswellbrook Coal Company to more efficiently meet environmental outcomes.
If you require any further information regarding this matter please contact Robert Gibson, Regional Biodiversity Conservation Officer, on 4927 3154.

Yours sincerely

RICHARD BATH
Senior Team Leader Planning, Hunter Central Coast
Regional Operations

12 APR 2017
### Response to OEH’s Comments on Environmental Management Strategy

<table>
<thead>
<tr>
<th>OEH’s Comments</th>
<th>MCC’s Response</th>
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<td>A cross reference to the Mining Operations Plan/Rehabilitation Plan for more detail regarding the revegetation strategy has been added to Section 5.6.</td>
</tr>
<tr>
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<td>Cross references to other EMPs for more details on the monitoring programs has been added to Section 6.2. More information about using the results for adaptive management has been added to Section 6.2.</td>
</tr>
</tbody>
</table>
Julie Thomas  
Muswellbrook Coal Company Ltd  
PO Box 123  
Muswellbrook NSW 2333  

11 May 2017  

Dear Julie,  

Muswellbrook Coal Mine, Muswellbrook Coal Company – Environmental Management Strategy (EMS)  

We refer to your Environmental Management Strategy (EMS) for the Muswellbrook Coal Mine which was received by the NSW Department of Planning and Environment – Division of Resources and Geoscience (the Department) on 4 April 2017 (Department Reference: INW17/22565).  

The Department acknowledges receipt of the EMS. Muswellbrook Coal Company Ltd must ensure that the EMS and the Mining Operations Plan (MOP) are consistent. Mining activities must be conducted in accordance with an approved MOP.  

If you require additional information on this matter please contact Kate Walsh at the Environmental Sustainability Unit’s Maitland office on 4931 6739.  

Yours sincerely,  

Kate Walsh  
Inspector Environment  
Environmental Sustainability Unit  
Division of Resources and Geoscience  
NSW Department of Planning and Environment
Grant Clouten  
Senior Operations Manager  
Muswellbrook Coal Company  
PO Box 123  
MUSWELLBROOK 2333

Dear Grant

Approval of Management Plans

Council recently received copies of the following Management Plans required by your mining Consent modified in October 2016. The Management Plans are as follows:

- Spontaneous Combustion Management Plan (Condition 31)
- Air Quality Management Plan (Condition 29)
- Visual Amenity Lighting and Landscape Management Plan (Condition 22)
- Environment Management Strategy (Condition 14)

This Consent requires these plans to be updated within 6 months of approval and submitted to Council.

Council can advise that the 4 above listed plans have been reviewed and Council are satisfied that they meet the requirements of the Consent. They are now approved and can be implemented.

Council ask that these plans are implemented by 30 June 2017 and that they remain in force until replaced by any future approved plan.

Please provide a clean copy of the Approved Management Plans to Council for our records.

Should you require further information regarding this letter please contact Scott Brooks on 6549 3882.

Yours faithfully

Donna Watson  
Development Planner