

MINING OPERATIONS (BLOOMFIELD)

Environmental Management Strategy

Ver	Date	Description	By	Chk	App
1	240210	Final Draft	KH	SD	SD
2	090611	Revised Final Draft - incorporating Project Area as approved by Section 75W Modification	KH	SG	SG
3	170717	Revised Final – Revised and Updated	GL		BC
4	061117	Revised Final – incorporating DPE consultation	GL		BC

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

CONTENTS	INTRODUCTION	3
	PURPOSE AND OBJECTIVES	3
	Strategic Framework	3
	Environmental Policy	3
	PROJECT DESCRIPTION	4
	RELATIONSHIP WITH OTHER PLANS	5
	STATUTORY OBLIGATIONS	5
	APPROVED DEVELOPMENT	6
	PROJECT APPROVAL CONDITIONS	7
	ROLES AND RESPONSIBILITIES	9
	PUBLIC AWARENESS	9
	Complaints	10
	Disputes	10
	MONITORING	10
	EMERGENCY PROCEDURES AND INCIDENT RESPONSE	10
	NON COMPLIANCE	11
	Corrective Actions	11
	Systems Review and Improvement	11
	General Conditions of Review	11
	CONTINUAL IMPROVEMENT	12

APPENDICES	Appendix A – Environmental Policy	
	Appendix B – Summary of Key Legislation	

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

INTRODUCTION

This environmental management strategy (EMS) has been prepared in response to Project Approval, 07_0087, (Approval) granted under section 75J of the Environmental Planning and Assessment Act (EP&A) and modifications (MOD 3) to the Approval was granted in accordance with section 75W of the Environmental Planning and Assessment Act 1979.

The environmental management strategy takes into consideration the commitments stated in the Part 3A Environmental Assessment, various conditions outlined in schedules 2 to 5 of the Approval granted under Section 75 J of the Environmental Planning and Assessment Act 1979 and the Notice of Modification. In addition, commitments outlined in Bloomfield Group Environment Management Policy are also taken into account.

PURPOSE AND OBJECTIVES

The purpose and objectives of the Environmental Management Strategy (EMS) is to:

- provide an overall framework for environmental management;
- identify key environmental aspects to be addressed in the strategy and supporting plans and procedures;
- establish procedures for reviewing progress and implementing corrective actions; and
- provide a framework for review and continual improvement.

Strategic Framework

The EMS establishes an environmental management framework for all mining and related activities. It includes the development and management of environmental management plans, procedures and reporting requirements. The subordinate programs, plans and policies have been developed in consultation with relevant government agencies and departments.

Management of environmental aspects and issues of the mine are documented, regulated, controlled and measured through this document in addition to the various environmental management and monitoring plans, Mining Operations Plan (MOP) and Annual Environmental Management Report (AEMR).

Environmental Policy

Bloomfield Colliery (Colliery) is committed to sustainable operations throughout all components of the business. The company's environmental policy states the intentions and principles for environmental performance across the operation and is reproduced in full in Appendix A.

The policy incorporates regular review and improvement to ensure that EMS remains relevant to the operation and the various environmental requirements as they change over time.

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

PROJECT DESCRIPTION

Bloomfield Colliery is an open cut mining operation located to the north of John Renshaw Drive, Buttai and east of Buchanan Road, Buchanan, approximately 20 km north-west of Newcastle (refer Figure 1).

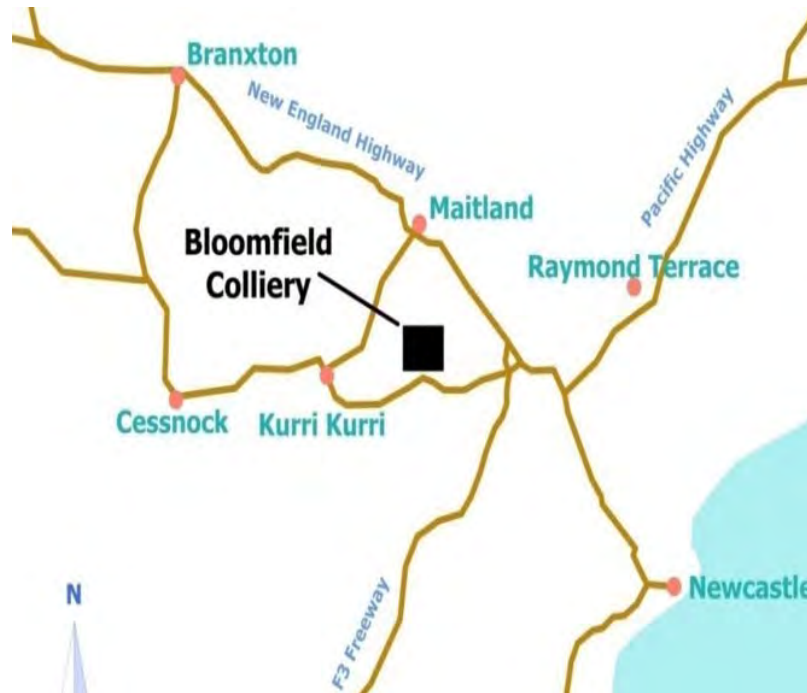


Figure 1 LOCALITY PLAN

Mining has occurred on the site for approximately 175 years. It is located within the Cessnock Local Government Area, and zoned 1(a) Rural 'A' under the Cessnock Local Environmental Plan 1989.

Mining is currently a multi-seam truck and excavator or face shovel operation, conducted in sequential mining blocks. It is proposed to continue this existing method using the same or similar equipment.

ROM coal is trucked to the ROM coal stockpile at the Bloomfield washery for processing, which occurs under the Abel Project Approval (05_0136). The colliery is approved to operate 7 days per week, 24 hours per day.

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

RELATIONSHIP WITH OTHER PLANS

The Environmental Management Plans detail the measures required to monitor and manage environmental impacts and include:

- Water Management Plan;
- Noise Monitoring Plan;
- Blast Monitoring Plan;
- Air Quality Monitoring Plan;
- Landscape Management Plan;
- Aboriginal Cultural Heritage Management Plan;
- Energy Savings Action Plan; and
- Biodiversity Offset Management Plan.

While the individual operating plans have been prepared to cover the life of the mine, the effectiveness and relevance of each of the plans will be reviewed at least every three years during the management review process or as required to accommodate changes.

STATUTORY OBLIGATIONS

Project Approval was granted by the Minister for Planning on 3 September 2009 under Section 75J of the Environmental Planning and Assessment Act, 1979. Three modifications to the Approval was granted in accordance with section 75W of the Environmental Planning and Assessment Act 1979.

In addition to the approval under the Environmental Planning and Assessment Act, 1979 there is a range of other relevant legislation. These include various Mining Leases and requirements of the Environment Protection Licence (EPL) that must be satisfied. The individual Environmental Management Plans reference the relevant sections and approvals where appropriate.

The individual management and monitoring plans reference the relevant sections of legislation and approvals where appropriate. A list of other key relevant legislation is provided in Appendix B.

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

APPROVED DEVELOPMENT

The approval allows for continued mining, operation of mine infrastructure and related activities a subject to a range of conditions. Relevant conditions are reproduced below:

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

1. *The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.*
2. *The Proponent shall carry out the project generally in accordance with the:*
 - (a) *EA;*
 - (b) *Statement of Commitments; and*
 - (c) *modification application 07_0087 Mod 1 and Environmental Assessment titled Extension of the Project Approval Area for Out-of-Pit Overburden Emplacement and Rehabilitation, Alternative Haul Road and Powerline Relocation, prepared by Business Environment and dated September 2010;*
 - (d) *the Biodiversity Offset Strategy titled Bloomfield Colliery Project Modification (07_0087 MOD 1) – Proposed Offset Strategy, dated 31 March 2011;*
 - (e) *the modification application 07_087 MOD 2 and letter entitled Bloomfield Coal Project – Modification of PA 07-0087, dated November 2011;*
 - (f) *the modification application 07-0087 MOD 3 as requested by letter entitled Bloomfield Coal Project – Modification of PA 07-0087, dated 17 December 2012; and*
 - (g) *conditions of this approval.*

Notes:

- *The general layout of the project is shown in Appendix 2; and*
 - *The Statement of Commitments is reproduced in Appendix 3.*
3. *If there is any inconsistency between the above documents, the more recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.*
 4. *The Proponent shall comply with any reasonable requirements of the Director-General arising from the Department's assessment of:*
 - (a) *any reports, plans, programs, strategies or correspondence that are submitted in accordance with the conditions of this approval; and*
 - (b) *the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.*

The Approval allows for the use of:

- current and proposed open cut mine areas;
- workshop;
- the road between the open cut pit areas and the ROM coal stockpile at the washery; and
- the road that links the workshop, open cut pits and washery.

Figure 2 shows the approved project area and location of monitoring sites.

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

PROJECT APPROVAL CONDITIONS The relevant conditions from the Approval that directly relate to the EMS for the site are reproduced in Table 1. Other relevant conditions are listed in Table 2.

Table 1 – Schedule 5 Condition 1

Requirement	EMS Reference
The Proponent shall prepare and implement an Environmental Management Strategy for the project, to the satisfaction of the Director-General. The strategy must:	
(a) be submitted to the Director-General for approval within 6 months of the date of this approval;	
(b) provide the strategic framework for environmental management of the project;	Purpose & Objectives
(c) identify the statutory approvals that apply to the project;	Statutory Obligations
(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;	Roles and Responsibilities
(e) describe the procedures that would be implemented to:	
• keep the local community and relevant agencies informed about the operation and environmental performance of the project;	Public Awareness
• receive, handle, respond to, and record complaints;	Public Awareness
• resolve any disputes that may arise during the course of the project;	Public Awareness
• respond to any non-compliance; and	Non Compliance
• respond to emergencies;	Emergency Procedure & Incident Response
(f) include:	
• copies of the various strategies, plans and programs that are required under the conditions of this approval once they have been approved; and	Public Awareness
• a clear plan depicting all the monitoring to be carried out in relation to the project.	Figure 2

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

Table 2 Other relevant consent conditions		
No		SCHEDULE 5 – ENVIRONMENTAL MONITORING, REPORTING AND AUDITING
2	Management plan requirements	<p>The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> • the relevant statutory requirements (including any relevant approval, license or lease conditions); • any relevant limits or performance measures/criteria; • the specific performance indicators that are proposed to be used to judge the performance • of, or guide the implementation of, the project or any management measures; <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> • impacts and environmental performance of the project; • effectiveness of any management measures (see (c) above); <p>(e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>(f) a program to investigate and implement ways to continually improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and <p>(h) a protocol for periodic review of the plan.</p>
3	Annual Review	<p>Each year, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:</p> <p>(a) describe the works that were carried out in the past year, and the works that are proposed to be carried out over the next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the mine complex over the past year, which includes a comparison of these results against the</p> <ul style="list-style-type: none"> • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and • the relevant predictions in the EA; <p>(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the project;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measure will be implemented over the next year to improve the environmental performance of the project.</p>
4	Revision of strategies, plans and programs	<p>Within 3 months of:</p> <p>(a) the submission of an annual review under Condition 3;</p> <p>(b) the submission of an incident report under Condition 6;</p> <p>(c) the submission of an audit report under Condition 7;</p> <p>(d) any modifications of the conditions of this approval (unless the conditions require otherwise), the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.</p>

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

ROLES AND RESPONSIBILITIES

The company directors are responsible for the overall environmental performance of Bloomfield Colliery. Senior Operational managers have direct responsibility for the areas that they control. The Environmental Officer provides direction and advice to ensure site environmental compliance is maintained. The key management positions are shown in Table 3.

Table 3 MANAGEMENT TEAM

Position	Name
Managing Director	John Richards
Manager of Mining Development	Garry Bailey
Mine Manager	Brendon Clements
General Manager Technical Services	Simon Grassby
Environmental Officer	Greg Lamb

PUBLIC AWARENESS

The community will be kept informed through a range of mechanisms including:

- provision of relevant plans, and reports on the corporate website;
 - 24 hour telephone contact line;
 - informal discussions with local residents as required; and
 - a Community Consultative Committee.
 - all relevant plans, minutes and monitoring results are available online at www.bloomcoll.com.au
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BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

Complaints

All complaints that are raised by the community and/or government agencies are recorded. The following details for each are kept:

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

Disputes

In the event of a complaint that leads to a dispute where a mutually acceptable resolution is unable to be achieved the DPE will be consulted to assist in reaching an amicable outcome.

MONITORING

Environmental monitoring is used to check the performance of the operation against regulatory standards. Records of all environmental monitoring and results are kept on site and available if required.

Regular environmental monitoring is integral to the successful implementation of the environmental strategy. The measurement and evaluation of criteria allows for the assessment of performance against quantitative and qualitative standards and assists in the identification of any non-conformances or areas that may require additional attention.

Checks will be made to ensure compliance with all statutory, legislative and approval requirements including the consent conditions and various licence and approval requirements (EPL, mining approvals).

An integrated environmental monitoring plan is being developed in consultation with Donaldson Coal to reflect the requirements of the Approval for this project and the Abel Project Approval (05_0136). The integrated monitoring plan will be designed to meet the requirements of relevant approvals and the various monitoring requirements.

EMERGENCY PROCEDURES AND INCIDENT RESPONSE

Incidents and emergencies are managed in accordance with the Bloomfield Incident Management System, the Bloomfield Mining Operations Incident Notification Procedure and the relevant Hazard Management System.

Internal procedures have not been reviewed or endorsed by DPE. Bloomfield Colliery takes responsibility for ensuring these procedures are in accordance with this Strategy and generally in accordance with the project approval.

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

NON COMPLIANCE

If the results of monitoring show the relevant criteria or threshold has been exceeded, an investigation into the potential sources and/or causes will be undertaken. If the company is found to be responsible for the exceedance further actions will be taken to address the matter.

The investigation will consider any plant operation or other factors that may have resulted in the non compliance. A report will be prepared and provided to Department of Planning or other relevant agency.

The report will:

- (a) describe the date, time and nature of the exceedance/ incident;
- (b) identify the cause (or likely cause) of the exceedance/ incident;
- (c) describe what action has been taken to date; and
- (d) describe the proposed measures to address the exceedance/incident.

Actions will be taken to implement recommendations that are made during the investigation.

Corrective Actions

Corrective and preventative actions will be implemented through the development of an action plan. The plan will provide details on the action required, time frame and responsibilities for completing the action. The implementation of the corrective and preventative actions will be reviewed internally and specific procedures developed for addressing non-conformances with the EMS or subordinate plans and strategies.

Systems Review and Improvement

The ongoing effectiveness and efficiency of the Environment Management Strategy is monitored as part of the day-to-day operations management. Feedback from this and other more formal reviews and/ or following special occurrences and audits, form the basis for system improvement. Ongoing review of the strategy is as per the relevant Systems Review Management System.

General Conditions of Review

In general, Bloomfield's management systems are reviewed and updated under the following conditions:

- Every three years; or
- Whenever there is a significant change to relevant legislation; or
- Whenever there is a significant change to the operations; or
- Whenever control measures are found to be ineffective either through:
 - ◆ changes to the working environment or
 - ◆ changes to operating systems; or
 - ◆ subsequent risk assessments; or
 - ◆ the findings of an audit; or
 - ◆ following a significant accident/ incident; or
 - ◆ following an assessment of a related safety alert.

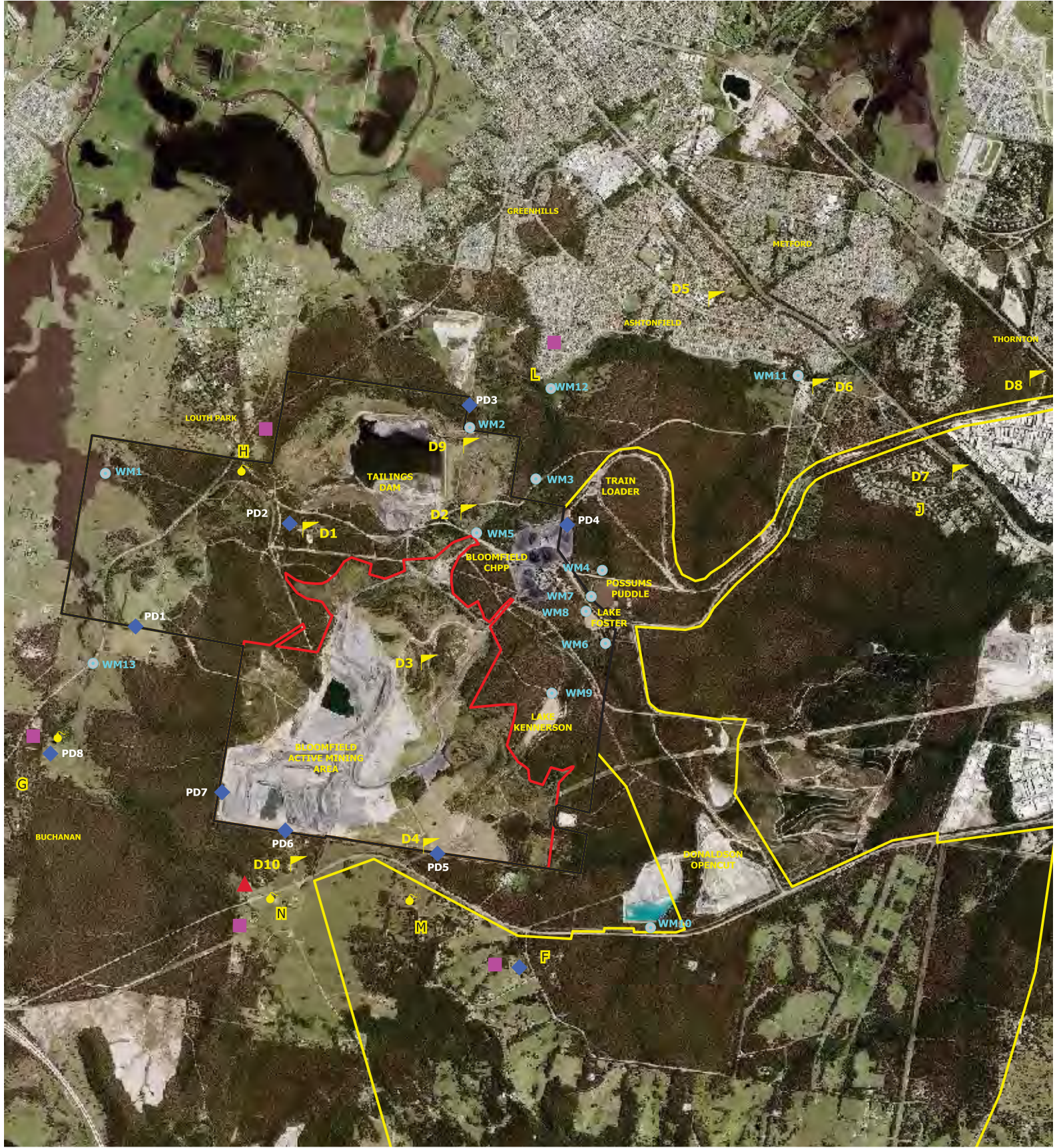
BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

CONTINUAL IMPROVEMENT

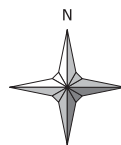
Operational activities will be subject to regular review to ensure conformance with commitment made in the EMS and subordinate plans and strategies. The EMS will be reviewed every three years or more frequently if required to address areas that may require improvement. New activities or changes to the operation that may result in environmental problems will be assessed to determine if changes are required to manage the impacts.

The review process may include formalised procedures such as internal and external audits or feedback from consultation.



LEGEND

0 1 km



	Bloomfield Project Area		High Volume Air Sampler
	Abel Mine Project Area		Noise Monitor
	Bloomfield Mining Lease		Peizometers
	Blast Monitor		Water Monitoring
	Dust Monitor		



Bloomfield Colliery

Environmental Management Strategy

Figure 2 Environmental Monitoring Sites

Scale: 1:33,333

Date: January 2016
Photo: January 2016

Drawing: A3

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

APPENDIX A

ENVIRONMENTAL POLICY

THE BLOOMFIELD GROUP ENVIRONMENT POLICY



It is the policy of the Bloomfield Group, and its subsidiary and associated companies, to strive to achieve a high standard of care for the natural environment in all of the activities in which we engage during the production of quality coal and the provision of engineering related services.

We aim to conduct our operations in an ecologically sustainable manner by:

- Identifying, monitoring and managing risks arising from our operations in accordance with the structure
- Minimising our impact on the environment through the:
 - prevention of air, ground and water pollution;
 - reduction of noise associated with our activities to as low as reasonably practicable;
 - control of waste associated with our activities;
 - rehabilitation of disturbed areas; and
 - management of energy consumption and greenhouse gas production.
- Identifying, monitoring and managing risks arising from our operations in accordance with the structure of our Environment Management System, which establishes the appropriate objectives and targets related to the environmental aspects relevant to the scope of the Operation;
- Reviewing our environmental management activities and seeking to continually improve our production processes, waste management and the use of resources;
- Conducting our operations in compliance with all relevant environmental regulations, licences and legislation;
- Communicating with employees about our aim and about their individual responsibilities;
- Informing our contractors, customers and suppliers of our aim and of their environmental responsibilities in relation to our business;
- Communicating with the community and relevant government bodies with regard to our environmental performance, obligations and issues, as appropriate to their interests.

Signature  _____
 Name Brett Lewis

Managing Director

 Date 25th May 2017 _____

Signature  _____
 Name Brendon Clements

Mine Manager, Bloomfield Mine

 Date 25th May 2017 _____

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

APPENDIX B

RELEVANT LEGISLATION

BLOOMFIELD MINING OPERATIONS

Environmental Management Strategy

Commonwealth Legislation

- Energy Efficiency Opportunities Act, 2006*
- National Greenhouse and Energy Reporting Act, 2007*

NSW Legislation

- Threatened Species Conservation Act 1995;*
- Threatened Species Conservation Regulation 2002;*
- National Parks and Wildlife Act 1974;*
- Environmentally Hazardous Chemicals Act 1985;*
- Occupational Health and Safety Amendment (Dangerous Goods) Act 2003;*
- Coal Mine Health and Safety Act 2002;*
- Local Government Act 1993;*
- Roads Act 1993;*
- Water Management Act 2000;*
- Water Act 1912;*
- Native Vegetation Act 2003;*
- Protection of the Environment Operations Act 1997;*
- Mining Act 1992;*
- Protection of the Environment Operations Amendment (Scheduled Activities and Waste) Regulation 2008;*
- Occupation Health and Safety Act 2000; and*
- Heritage Act 1977.*



Greg Lamb
Environmental Officer
Bloomfield Colliery
PO Box 4
EAST MAITLAND NSW 2323

Dear Mr Lamb

**Bloomfield Coal Project (MP 07_0087)
Review of Management Plans**

I refer to your email dated 14 December 2017 providing the Department with several updated management plans addressing the Department's comments of 5 October 2017.

The Department has reviewed the below management plans and strategy for the Bloomfield Coal Project, which have been prepared in accordance with the mine's project approval:

- Noise Monitoring Program dated August 2017 (condition 4 of Schedule 3);
- Blast Monitoring Program dated July 2017 (condition 14 of Schedule 3);
- Landscape Management Plan dated August 2017 (condition 26 of Schedule 3);
- Rehabilitation Management Plan dated August 2017 (condition 27 of Schedule 3);
- Final Void Management Plan dated August 2017 (condition 28 of Schedule 3);
- Mine Closure Plan dated August 2017 (condition 29 of Schedule 3);
- Biodiversity Offset Management Plan dated July 2017 (condition 29B of Schedule 3); and
- Environmental Management Strategy dated July 2017 (condition 1 of Schedule 5).

I advise that the Secretary approves the above management plans and strategy. Please provide final copies of these plans to the Department at your earliest convenience and place copies on your website.

The Department considers that the revised Air Quality Monitoring Program (condition 16 of Schedule 3) has not adequately addressed the Department's previous comments. The Department's comments on this document are enclosed in **Attachment A**. The Department requests that this document be re-submitted by **8 January 2017**.

The Department notes that a revised Water Management Plan (condition 19 of Schedule 3) was not submitted and that an extension to submit by 31 December has been granted. It is also noted that the draft Aboriginal Cultural Heritage Management Plan has not been reviewed as it is understood that it is currently with the Mindaribba Land Council for consultation. The Department will review this plan once a final version is submitted.

Should you have any enquiries in relation to this matter, please contact Jessie Evans on the details above.

Yours sincerely,

Howard Reed
Director

Resource Assessments
as nominee of the Secretary

19-12-17