WILPINJONG COAL
BLAST MANAGEMENT PLAN

WI-ENV-MNP-0037

August 2020

Document Owner		Document Approver
Environmental Advisor		Environment and Community Manager
Version	**Approval Date**	**Approver Name**
7	August 2020	Kieren Bennetts

General Description of Changes from Previous Version

Document No.	Version	Date	Prepared/Reviewed By	Distribution	Description of Change
WI-ENV-MNP-0037	1	16 May 2014	WCPL, Palaris, Resource Strategies	DP&E, OEH	New document number and format. Revised following approval of Mod 5 (PA 05-0021).
WI-ENV-MNP-0037	2	October 2016	WCPL	DP&E	MOD 7
WI-ENV-MNP-0037	3	June 2017	WCPL & SLR	DP&E & OEH & EPA	Revision to align with SSD-6764 as a result of the WEP.
WI-ENV-MNP-0037	4	September 2018	WCPL	DP&E & OEH & EPA	Revision to align with MWRC infrastructure vibration limits and Wollar Road TCP for blasting.
WI-ENV-MNP-0037	5	June 2019	WCPL	DP&E & OEH & EPA	Update of figure to reflect current monitoring system and boundaries.
WI-ENV-MNP-0037	6	September 2019	WCPL	DPIE & OEH & EPA	Update mgt plan to include revised disturbance footprint boundary in Pit 8
WI-ENV-MNP-0037	7	August 2020	WCPL	DPIE & OEH & EPA	Update to include ML1795 and update figures accordingly. Update reporting protocol and clarify vibration monitoring. Review blast fume management strategy.

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Tables

1 Introduction

The Wilpinjong Coal Mine ("the Mine") is owned and operated by Wilpinjong Coal Pty Limited (WCPL), a wholly owned subsidiary of Peabody Energy Australia Pty Ltd (PEA).

The Mine is an existing open cut coal mining operation situated approximately 40 kilometres (km) north-east of Mudgee, near the Village of Wollar, within the Mid-Western Regional Local Government Area, in central New South Wales (NSW) (**Figure 1**). The mine produces thermal coal products which are transported by rail to domestic customers for use in electricity generation and to port for export. Open cut mining operations are undertaken 24 hours per day, seven days per week.

PEA and its subsidiaries, WCPL and Peabody Pastoral Holdings Pty Ltd, is a major landholder owning adjacent rural properties and land to the east and south-east of the Mine. Land to the west of the Mine is owned by adjacent mining companies, whilst the National Parks and Wildlife Service estate own significant land to the north and south-west of the Mine.

Private properties are located predominantly in and around the Wollar Village approximately 1.5 km to the east of the Mine, along Mogo Road to the north of the Mine.

The Mine originally operated under Project Approval (PA 05-0021) that was granted by the Minister for Planning under Part 3A of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) on 1 February 2006.

The Blast Management Plan (BMgtP) was previously developed in accordance with PA05-0021.

On 24 April 2017, WCPL was granted Development Consent (SSD-6764) for the Wilpinjong Extension Project (WEP) that provides for the continued operation of the Mine at rates of up to 16 million tonnes per annum (Mtpa) of run-of-mine (ROM) out to 2033, and access to approximately 800 hectares (ha) of open cut extensions. Development Consent (SSD-6764) has superseded the Project Approval (Project Approval 05-0021)[1].

This BMgtP has been prepared to satisfy the relevant conditions in Development Consent (SSD-6764). Where relevant, this BMgtP builds on the components of the existing/approved BMgtP, including previous feedback from government stakeholders and recommendations from the Noise and Blasting Assessment (SLR, 2015) prepared for the WEP. This BMgtP has previously been reviewed by SLR Consulting Australia Pty Ltd (SLR).

[1] PA05-0021 was surrendered on the 28 April 2020 as required by Condition 9, Schedule 2 of SSD-6764.

LEGEND
- Mining Lease Boundary
- Exploration Licence Boundary
- Authorisation Boundary
- Local Government Boundary
- NSW State Forest
- National Park, Nature Reserve or State Conservation Area
- Coal Mining Operation

Source: WCPL (2019); Office of Environment & Heritage NSW (2019); NSW Land & Property Information (2017); NSW Dept of Industry (2019); Geoscience Australia (2011)

Peabody
WILPINJONG COAL MINE
Regional Location

Figure 1: Locality Plan

1.1 Definitions

Table 1 lists the definitions for particular terms used throughout this BMgtP.

Table 1: Definition of Acronyms and Particular Terms

Acronym / Terms	Definition
Blast	Refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine, as defined by Development Consent (SSD-6764).
Blast Conditions	Means the Blast Conditions specified in Development Consent (SSD-6764) and EPL.
Blast Criteria	Means the Blast Criteria from the Blast Conditions and that are summarised in Table 7.
EL	Exploration Licenses 6169 and 7091 granted by the Minister for Resources and Energy under the Mining Act 1992 on 3 March 2008 respectively. EL 6169 was renewed on 14 October 2013 and EL 7091 was renewed on 12 March 2013.
Damage Criteria	Refers to the ground vibration level that if exceeded, at the particular feature, is a reportable incident (**Section 9.1.3**)
Development Consent (SSD-6764)	Number SSD-6764 granted by the Minister for Planning under Part 4 of the EP&A Act on 24 April 2017.
DP&E	Department of Planning and Environment
DPIE	Department of Planning, Industry and Environment (formally Department of Planning and Environment)
EPA	The NSW Environment Protection Authority.
EPL	Environment Protection Licence 12425 granted by the EPA under the *Protection of the Environment Operations Act 1997* (POEO Act).
EPL Blasting Monitoring Site	the blast monitoring site located approximately 50 m west of the Wollar Primary School grounds, as identified in Condition M8.1 of the EPL.
BMP	Biodiversity Management Plan as required under Condition 42, Schedule 3 of Development Consent (SSD-6764).
BMgtP	Means this Blast Management Plan prepared by WCPL and as amended from time to time.
Mircobat	(*Microchiropteran* bats) means relatively small mammals with weights ranging from 3 grams up to 40 grams. Nineteen mircobat species are listed as threatened under the TSCA[2].
OEH	NSW Office of Environment and Heritage.
Performance Indicator	Refers to the ground vibration limit to which blasts will be designed to, at the particular feature (**Section 4.1.2**)
Private Receiver or Private Receivers	Means a Private Receiver or Private Receivers as identified in the Blast Conditions.
Project	The development as described in the WEP EIS (WCPL, 2016).
Project Approval	Project Approval (05-0021) granted by the Minister for Planning under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 1 February 2006 (as amended).
TSCA	*Threatened Species Conservation Act 1995* administered by OEH.
Vulnerable	Means (under the TSCA) a species that face a high risk of extinction in NSW in the medium term future as determine by the criteria prescribed in the regulation or are not eligible to be listed as endangered or critically endangered species or ecological community.
WCPL	Wilpinjong Coal Pty Limited.
WCP	The Wilpinjong Coal Project as described in the WCP EIS (WCPL, 2006)
WEP	The Wilpinjong Extension Project as described in the WEP EIS (WCPL, 2016)
WCP EIS	The Wilpinjong Coal Project Environmental Impact Statement (WCPL, 2006).
WEP EIS	The Wilpinjong Extension Project Environmental Impact Statement (WCPL, 2016).
WEP NIA	The Wilpinjong Extension Project Noise and Blasting Assessment (SLR, 2015)

[2] Source: http://www.environment.nsw.gov.au/resources/nature/landholderNotes07BatRoosts.pdf

1.2 Purpose

The purpose of this BMgtP is to manage blast induced ground vibration and airblast overpressure levels and minimise these blast emission impacts on the local community, infrastructure, on a vulnerable micro-bat species, and cultural heritage sites to the extent required by the Blast Conditions in Development Consent (SSD-6764) and Environmental Protection Licence 12425 (EPL 12425). This BMgtP has been developed to:

- Describe the measures to be implemented to comply with the Blast Conditions;
- Describe the blast management and mitigation strategies used to manage impacts from blasting;
- Provide a management plan to minimise disturbance to a roosting site for the Eastern Bentwing-bat[3];
- Provide a blast monitoring protocol for evaluating compliance with the Blast Conditions;
- Provide a protocol for managing and reporting any blast emission exceedances or non-compliances;
- Communicate with the local community and regulators regarding WCPL's blasting activities;
- Describe and assign responsibilities relating to blast management at WCPL; and
- Describe how this BMgtP will be reviewed and updated; and
- Support the WCPL Environmental Management System (EMS) and associated aspects and impacts register.

1.3 Scope

This BMgtP has been prepared in accordance with the relevant Blast Conditions of the Development Consent (SSD-6764), EPL 12425 and Dam Safety Committee (DSC) Approval to manage blast emission impacts associated with open cut mining at the Mine (**Appendix 1** and **Appendix 2**). This BMgtP also includes the Blast Fume Management Strategy (**Appendix 4**) and an Eastern Bentwing-bat Management Plan (**Section 5.5**).

1.4 Consultation

This BMgtP has been prepared in accordance with the relevant Blast Conditions of Development Consent (SSD-6764). Initial consultation with the DPIE and NSW Environmental Protection Agency (EPA) commenced on 23 May 2017. Copies of correspondence are included in **Appendix 3**.

Consultation relating to the management of blasting operations regarding Aboriginal heritage sites in the vicinity of the Mine has been undertaken as part of the WCPL Aboriginal Cultural Heritage Management Plan.

Further consultation with MWRC (**Appendix 3**) was undertaken during August and September 2018 for Revision 4 of the BMgtP in regards to establishing vibration limits on council owned infrastructure and public roads and approval for a Traffic Control Plan (TCP) when blasting within 500m of Wollar Road (**Section 4.1.1**).

On the 8 August 2019, WCPL commenced consultation with the DPIE to request a minor variation to increase the disturbance footprint and open cut boundary to Pit 8, arising from refinement to the Pit 8 detailed design. On the 23 August 2019, WCPL received approval from the DPIE that the proposed minor changes to the footprint area of Pit 8 are generally in accordance with the WEP and project approval. Accordingly, WCPL have updated all relevant management plans required by SSD-6764 to reflect this change, as discussed with the DPIE.

[3] Mircobat species listed as threatened under the TSCA.

2 Statutory Requirements

This BMgtP has been prepared in accordance with the requirements of Development Consent (SSD-6764) as shown in **Section 2.2** and Environmental Protection Licence No.12425 (EPL 12425) as shown in **Appendix 1**, and the DSC Approval (for tailings dams TD3 and TD6), as shown in **Appendix 2**.

2.1 Project Approval, DSC and License Requirements

Table 2 summarises WCPL's current approvals.

Table 2: WCPL's Current and Historical Statutory Approvals

Approval/Licence No.	Description	Date of Approval	Agency
SSD-6764	Development Consent	24 April 2017	DPIE
EPL 12425	EPL	19 June 2020*	EPA

Notes: * Date of last EPL Variation

PA05-0021 was surrendered on 28 April 2020 in accordance with Condition 9, Schedule 2 of Development Consent SSD-6764.

2.2 Specific Development Consent Requirements

This BMgtP has been prepared in accordance with Conditions 7, 8, 9, 10, 11, 12, 13 and 14, Schedule 3 of Development Consent (SSD-6764). **Table 2** presents the blasting specific requirements and indicates where they are addressed within this BMgtP. Other statutory and Development Consent (SSD-6764) requirements are shown in **Appendix 1**.

Table 3 Development Consent Blasting Requirements

<table>
<tr><th>Development Consent (SSD-6764) Condition</th><th>BMgtP Section</th></tr>
<tr><td>

BLASTING

Blast Criteria

7. The Applicant must ensure that blasting on the site does not cause exceedances of the criteria in Table 4.

Table 4: Blasting criteria

<table>
<tr><th>Location</th><th>Airblast overpressure (dB(Lin Peak))</th><th>Ground vibration (mm/s)</th><th>Allowable exceedance</th></tr>
<tr><td rowspan="2">Residence on privately owned land</td><td>115</td><td>5</td><td>5% of the total number of blasts over a rolling period of 12 months</td></tr>
<tr><td>120</td><td>10</td><td>0%</td></tr>
<tr><td>All public infrastructure</td><td>-</td><td>50 (or a limit determined by the structural design methodology in AS 2187.2-006, or its latest version, or other alternative limit for public infrastructure, to the</td><td>0%</td></tr>
</table>

However, these criteria do not apply if the Applicant has a written agreement with the relevant owner to exceed these criteria, and has advised the Department in writing of the terms of this agreement.

</td><td>4.1</td></tr>
<tr><td>

Blasting Hours

8. The Applicant must only carry out blasting on the site between 9am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.

</td><td>4.4</td></tr>
<tr><td>

Blasting Frequency

9. The Applicant may carry out a maximum of:

(a) 2 blasts a day; and

(b) 5 blasts a week, averaged over a calendar year, at the site.

This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, blast misfires or blasts required to ensure the safety of the mine or its workers.

Notes:

- *For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.*
- *For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast.*
- *In circumstances of recurring unfavourable weather conditions (following planned but not completed blast events), to avoid excess explosive sleep times and minimise any potential environmental impacts, the Applicant may seek agreement from the Secretary for additional blasts to be fired on a given day.*

</td><td>4.5</td></tr>
<tr><td>

Property Inspections

10. If the Applicant receives a written request from the owner of any privately-owned land within 3 kilometres of any approved open cut mining pit/s on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Applicant must:

(a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to:

- establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and
- identify reasonable and feasible measures that should be implemented to minimise the potential

</td><td>4.6</td></tr>
</table>

Development Consent (SSD-6764) Condition	BMgtP Section
blasting impacts of the development on these buildings and/or structures; and (b) give the landowner a copy of the new or updated property inspection report. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Secretary for resolution.	
Property Investigations 11. If any owner of privately-owned land within 3 kilometres of any approved open cut mining pit/s on site, or any other landowner where the Secretary is satisfied an investigation is warranted, claims that buildings and/or structures on his/her land have been damaged as a result of blasting associated with the development, then within 2 months of receiving this request, the Applicant must: (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and (b) give the landowner a copy of the property investigation report. If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant must repair the damages to the satisfaction of the Secretary. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the independent property investigation, either party may refer the matter to the Secretary for resolution.	4.7
Operating Conditions 12. During mining operations on the site, the Applicant must: (a) implement reasonable and feasible measures to: • protect the safety of people and livestock in the area surrounding blasting operations; • protect public or private infrastructure/property and heritage items in the area surrounding blasting operations from blasting damage; • minimise blasting impacts on the Shale Oil Mine Adit containing the Eastern Bentwing-bat roost site located adjacent to Pit 8; and • minimise the dust and fume emissions from blasting at the development; (b) ensure that blasting at the site does not: i. damage any identified rock shelters with moderate to high Aboriginal cultural heritage significance located within the Munghorn Gap Nature Reserve; and ii. cause more than negligible damage to any identified rock shelters with low Aboriginal cultural heritage significance located within the Munghorn Gap Nature Reserve; (c) limit temporary blasting-related road closures to 1 per day; (d) co-ordinate the timing of blasting on site with the timing of blasting at the adjoining Moolarben and Ulan coal mines to minimise the potential cumulative blasting impacts of the three mines; (e) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site; and (f) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent.	5.0
13. The Applicant must not undertake blasting on site within 500 metres of any public road or railway, or any land outside the site not owned by the Applicant, unless the Applicant has: (a) a written agreement with the relevant infrastructure owner or landowner to allow blasting to be carried out closer to the infrastructure or land, and the Applicant has advised the Department in writing of the terms of this agreement; or **(b)** demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock or damaging the infrastructure and/or other buildings and structures, and updated the Blast Management Plan to include the specific mitigation measures that would be implemented while blasting is being carried out within 500 metres of the infrastructure or land.	5.3

Development Consent (SSD-6764) Condition	BMgtP Section
Blast Management Plan 14. Prior to carrying out any development under this consent, unless the Secretary agrees otherwise, the Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:	This BMgtP
(a) be prepared in consultation with the EPA and OEH;	1.4 & 2.4
(b) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this consent;	5.0 & 6.0
(c) include a Eastern Bentwing-bat Management Plan that:	5.5
• establishes preliminary blasting ground vibration thresholds of no more than 80mm/s to protect the Shale Oil Mine Adit and minimise disturbance to the Eastern Bentwing-bat roosting site;	4.1.4
• evaluates and reports on blast vibration and overpressure at the Shale Oil Mine Adit and monitors disturbance of the Eastern Bentwing-bat roosting site;	5.5
• includes an annual program for reviewing and revising blasting thresholds; and	
• describes other measures to minimise impacts consistent with the Biodiversity Management Plan (see condition 42 of this schedule).	9.1 &10.0 5.5
(d) propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and	4.1
(e) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with Council;	5.3
(f) include a monitoring program located on or representative of privately-owned land for evaluating and reporting on compliance with the blasting criteria and operating conditions of this consent.	6.0
15. The Applicant must implement the approved Blast Management Plan for the development.	This BMgtP

2.3 Development Consent General Requirements

Condition 3, Schedule 5 of Development Consent (SSD-6764), outlines general management plan requirements that are applicable to the preparation of the BMgtP. **Table 4** presents these requirements and indicates where they are addressed within this BMgtP.

Table 4 General Management Plan Requirements

Development Consent (SSD-6764) Condition	BMgtP Section
Management Plan Requirements 3. The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:	Section 2.0
(a) detailed baseline data;	Section 3.0
(b) a description of:	
• the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Section 2.1 & Appendix 1
• any relevant limits or performance measures/criteria;	Section 4.1
• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Section 4.3
(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Section 5.0

Development Consent (SSD-6764) Condition	BMgtP Section
(d) a program to monitor and report on the: • impacts and environmental performance of the development; • effectiveness of any management measures (see c above);	Section 6.0 & Section 9.0
(e) a contingency plan to manage any unpredicted impacts and their consequences;	Section 7.0
(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 9.2 & 9.3
(g) a protocol for managing and reporting any: • incidents • complaints • non-compliances with statutory requirements; and • exceedances of the criteria and/or performance criteria; and	Section 9.1 Section 8.0 Section 9.1
(h) a protocol for periodic review of the plan.	Section 9.1 Section 10.0

2.4 Specific Guidance from Regulatory Agencies

The approved BMgtP[4] was prepared in consultation with the EPA, as required by Condition 5, Schedule 3 of the previous Project Approval Project Approval 05-0021. Consultation was also undertaken with a variety of regulators throughout the assessment and approval of the WEP. A number of additional, specific requirements and commitments for this BMgtP that arose from this consultation programme were subsequently reflected in Condition 14, Schedule 3 of Development Consent (SSD-6764).

Consultation for this BMgtP was undertaken with the EPA on the 23 May 2017. A draft of this BMgtP was supplied to the OEH and EPA on the 30 May 2017 for their review. Copies of all relevant consultation are provided in **Appendix 3** of this BMgtP.

WCPL received official notification from the EPA (Appendix 3) on the 22 June 2017 in regards to the various management plans required under Development Consent (SSD-6764) for their consideration. WCPL also met with the EPA on the 19 June 2017 to discuss in detail the preparation of these required management plans. The EPA had no further comment for this BMgtP.

WCPL received official notification on the 1 June 2017 (**Appendix 3**) that the OEH would not be providing comments for this BMgtP.

2.5 Relevant Legislation and Policies

The legislation, guidelines and standards considered during the preparation of this BMgtP, includes:

- *NSW Environmental Planning and Assessment Act 1979;*
- *NSW Protection of the Environment Operations Act 1997*;
- *Coal Mine Health and Safety Act 2002;*
- *Work Health and Safety Act 2011;*
- *Explosives Act 2003;*
- *Dam Safety Act 1978*;
- *Australian and New Zealand Environment Conservation Council (ANZECC) Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (ANZECC, 1990);* and

[4] Latest Version 2 Approved by the DP&E on 20 March 2017

- *Standards Australia AS 2187.2:2006 Explosives – Storage and Use - Part 2: Use of Explosives*.

2.5.1 Environmental Planning and Assessment Act 1979

The WCP was granted Project Approval by the Minister for Planning on 1 February 2006 pursuant to the s75J of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The WEP was granted Development Consent (SSD-6764) by the Minster for Planning under Part 4 of the EP&A Act on 24 April 2017. Refer to **Section 2.1** that describes the surrender of Project Approval PA05-0021.

Development Consent (SSD-6764) outlines the required blasting criteria that WCPL must comply with and sets out the general requirements of this BMgtP. This BMgtP has been prepared in accordance with the requirements of Development Consent (SSD-6764).

2.5.2 Protection of the Environment Operations Act 1997

The EPA issued EPL 12425 on 8 February 2006 under the *Protection of the Environment Operations Act 1997* (POEO Act). The EPL permits blasting activities to occur at the Mine, subject to the EPL conditions. In consultation with the EPA, the EPL will be modified (as required) to reflect the Development Consent (SSD-6764) conditions as they relate to blasting.

3 Baseline Data

3.1 Blast Impact Assessments

A blast impact assessment was undertaken for the WCP EIS (WCPL, 2006). This assessment investigated potential blast impacts from the Mine on people, livestock, natural features (cliff lines), heritage sites, and structures, such as buildings, railway lines, roads and buried pipes. Blast impact assessments have also been undertaken as part of the environmental assessment process for subsequent modifications to the Project Approval and the WEP.

The WEP NIA (SLR, 2015) included an assessment of blast induced ground vibration and airblast overpressure levels arising from blasting, based on indicative blast design parameters and data from previous blast monitoring undertaken at the Mine. Monitoring data was reviewed to determine the 50% and 5% exceedance ground vibration and airblast "site laws" (i.e. site-based prediction equations). These "site laws" were then used to predict ground vibration and airblast emissions at the nearest privately-owned receivers. Further development and ongoing review of these "site laws" will be undertaken for ground vibration and airblast overpressure to assist with the management of these blast emissions from the WEP.

3.2 Historical Monitoring Results

WCPL has monitored blast induced ground vibration and airblast overpressure levels around the Mine since blasting operations commenced in 2007. **Table 5** provides a summary of historical blast monitoring results for a number of representative sites.

Table 5: Historical Blast Monitoring Sites

Site Description	Monitoring Period	Figure	EPL Site
Jim Smith's Property	March 2006 – December 2012	**Figure 2** and **Figure 3**	2011 - 2013
Wollar Public School	December 2012 – January 2014	**Figure 4** and **Figure 5**	2013 - 2014
Aboriginal Site 72	March 2006 – January 2014	**Figure 6**	N/A
Aboriginal Site 152	March 2013 – January 2014	**Figure 7**	N/A
Aboriginal Site 153	March 2013 – January 2014	**Figure 8**	N/A

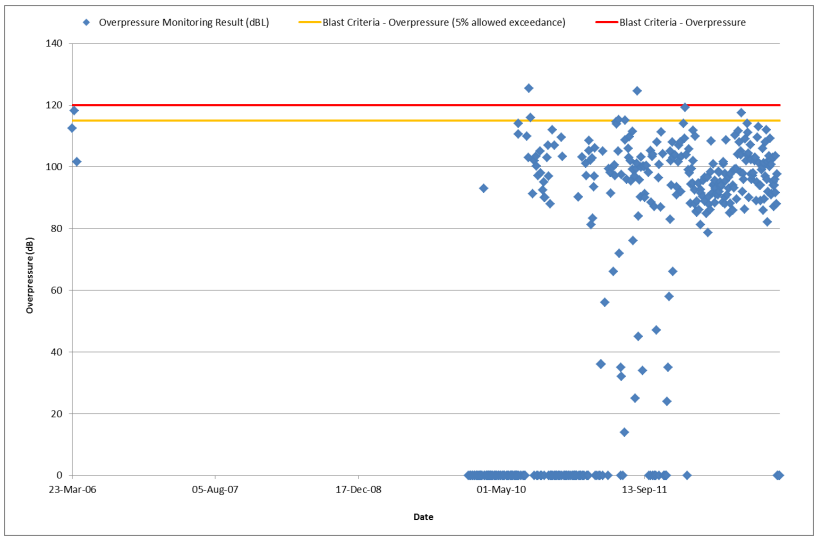


Figure 2: Historical Monitoring Results – Jim Smith's Property (2006-2013) - Overpressure

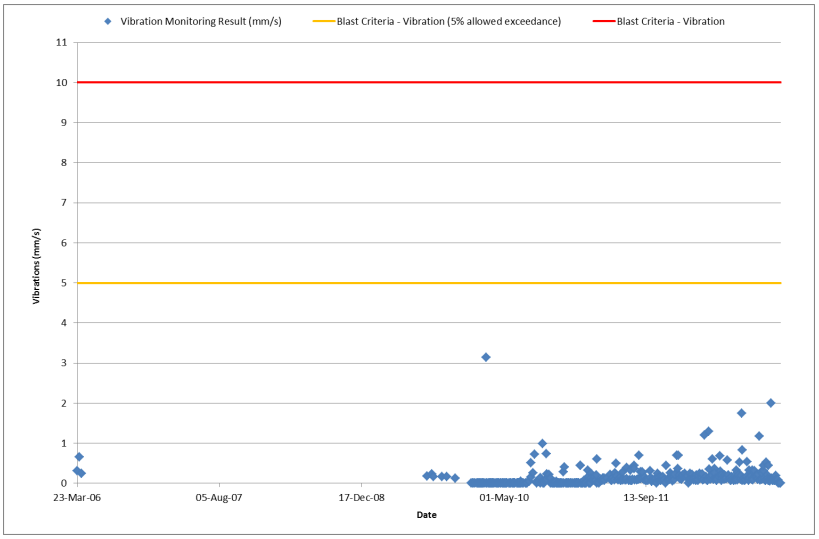


Figure 3: Historical Monitoring Results – Jim Smith's Property (2006-2013) - Vibration

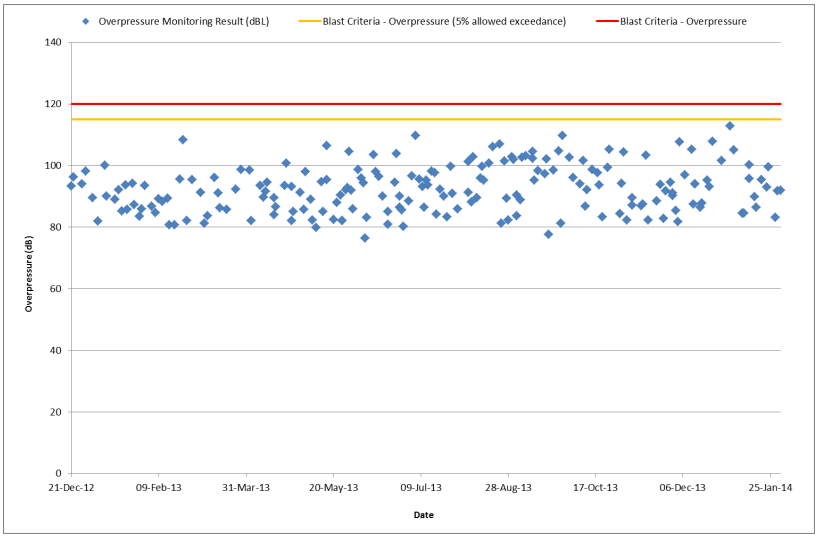


Figure 4: Historical Monitoring Results – Wollar Public School (2012-2014) – Overpressure

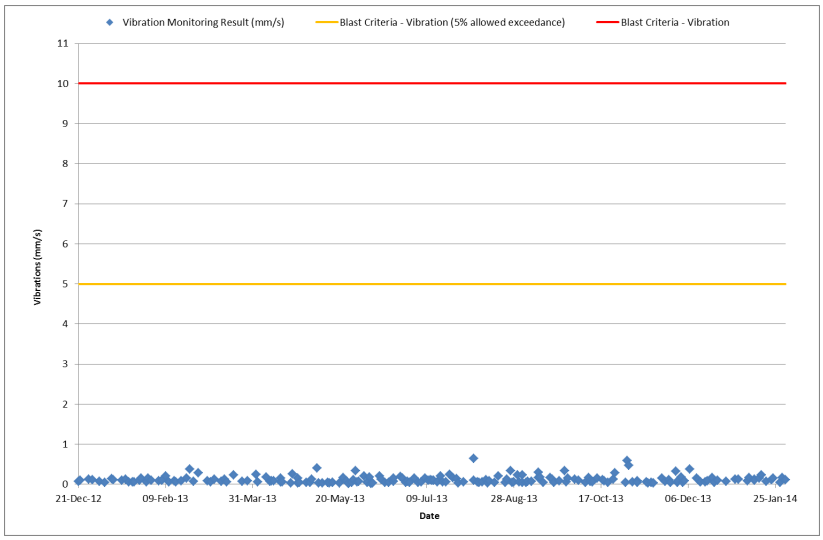


Figure 5: Historical Monitoring Results – Wollar Public School (2012-2014) – Vibration

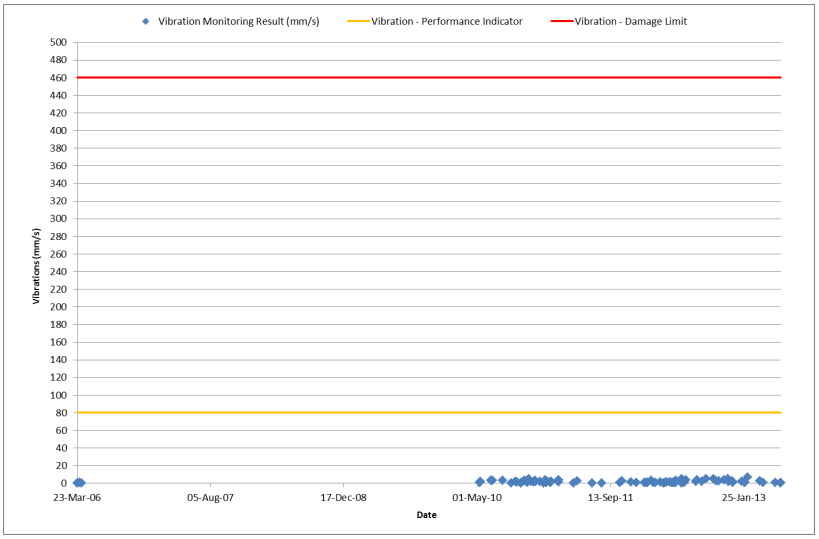


Figure 6: Historical Monitoring Results – Aboriginal Site 72 (2006-2014) – Vibration[5]

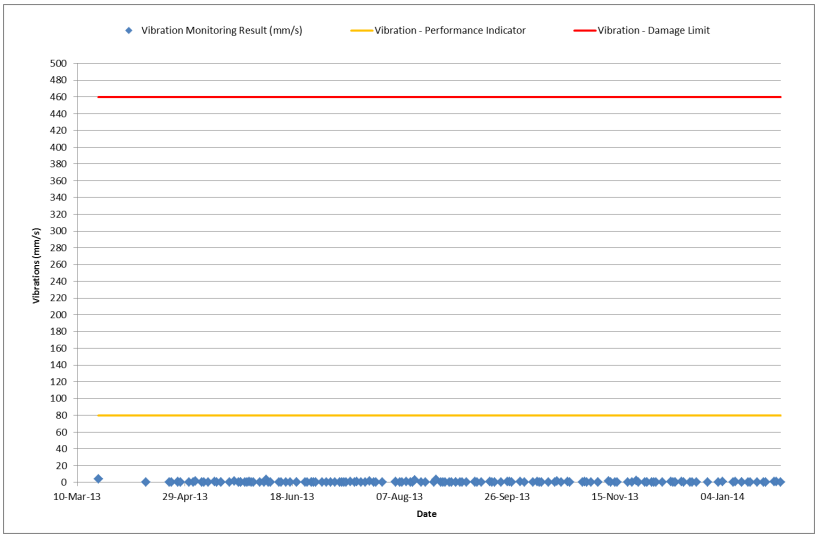


Figure 7: Historical Monitoring Results – Aboriginal Site 152 (2013-2014) – Vibration[6]

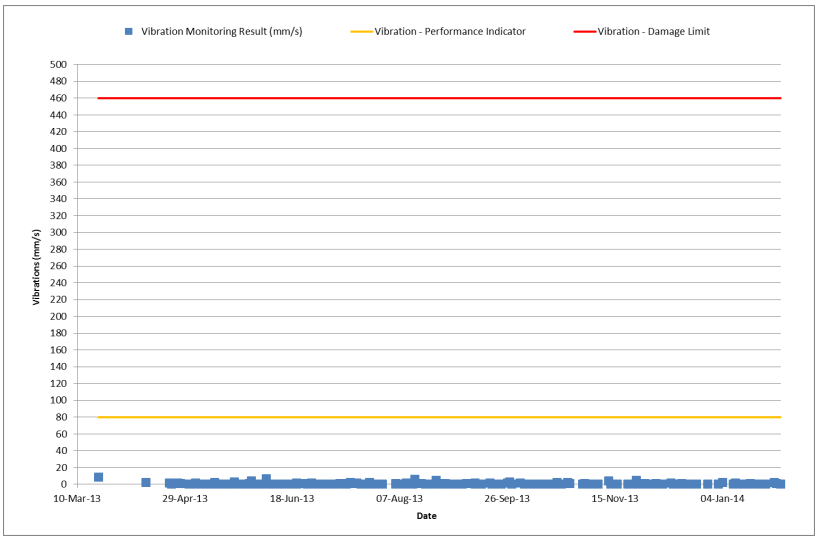


Figure 8: Historical Monitoring Results – Aboriginal Site 153 (2013-2014) – Vibration[6]

[5] Overpressure monitoring does not apply for Heritage Sites

3.3 Blast Compliance Results 2014

The WEP NIA (SLR, 2015) includes a review of the monitored blast emission data for 2014 (**Table 6**).

SLR concluded, as described in the Annual Review and Environmental Management Report 2014, there were no exceedances of the relevant ground vibration and airblast overpressure limits at the respective blast emission monitoring sites during the 2014 reporting period. (SLR, 2015).

Table 6 Review of Blast Compliance Results 2014

Site	Vibration (mm/s)[1]					Airblast (dBLpk)[2]				
	Max.	Min.	50% Exceedance	5% Exceedance	Criteria[3]	Max.	Min.	50% Exceedance	5% Exceedance	Criteria[3]
V1 - Rock Art (Site 72)[4]	4.6	1.1	2.5	4.4	**460**	n/a				
Rock Art (Site 152)[4] Pit 5 South (Southern Site)	2.7	0.0	0.2	1.2	**460**	n/a				
Rock Art (Site 153)[4] Pit 5 South (Northern Site)	9.3	0.0	0.3	2.6	**460**	n/a				
TD6[4]	18.5	0.9	3.8	10.3	**50**	n/a				
Wollar Public School	0.8	0.0	0.1	0.3	**5**	113	73	87	101	**115**
Main Rail Culvert Pit 4[4]	44	1.9	9.5	41.1	**100**	n/a				

Source: WCPL

Note 1: Vibration Velocity Peak Vector Sum (PVS) - millimetres per second (mm/s).

Note 2: Airblast Level Linear Peak - decibels linear peak re 20 micropascals (dBLpk re 20 µPa).

Note 3: WCPL blast criteria as per the BMP.

Note 4: Airblast limit not applicable (n/a).

4 Blast Compliance Requirements

In addition to meeting the Blast Criteria nominated in the Development Consent (SSD-6764) and EPL 12425, WCPL will implement all feasible and reasonable mitigation measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the Mine.

4.1 Blast Criteria

Table 7 presents WCPL's Blast Criteria from the Development Consent (SSD-6764) and EPL 12425.

Table 7 Blast Criteria

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Residence on privately owned land	115	5	5% of the total number of blasts over a rolling period of 12 months
	120	10	0%
All public infrastructure	-	50 *(or a limit determined by the structural design methodology in AS 2187.2-006, or its latest version, or other alternative limit for public infrastructure, to the satisfaction of the Secretary)*	0%

These criteria do not apply if WCPL has a written agreement with the relevant owner to exceed these criteria and has advised the DPIE in writing of the terms of this agreement (**Section 4.1.1**).

Table 8 presents WCPL's vibration criteria from the Dam Safety Committee (DSC) Approval.

Table 8 DSC Vibration Criteria

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Tailings Dams[1]	-	50	0%

Notes: [1] The criterion applies at any point on the dams. A minimum requirement is that monitoring of blast vibration occurs on the crest of TD3, TD4, TD5 and TD6 (**Section 5.4**).

4.1.1 Ground Vibration Criteria for Public Infrastructure

WCPL has adopted alternative ground vibration criteria for railway and public road infrastructure in consultation with ARTC and MWRC respectively. This criterion is shown in **Table 9** and described below.

Table 9 Ground Vibration Criteria for Public Infrastructure

Location	Source	Ground vibration (mm/s)	Monitoring Required
Railway lines	As agreed with ARTC	200	When blasting within 100m
Railway culverts	As agreed with ARTC	100	When blasting within 350m
Public Road*	As agreed with MWRC	200	When blasting within 100m
Public Road Infrastructure^	As agreed with MWRC	100	When blasting within 350m

Notes: * Includes reinforced concrete pipes (RCP) that are minor and form part of the road formation. ^ Includes major infrastructure as a bridge and/or reinforced concrete box culverts (RCBC).

On 8 September 2006 WCPL and ARTC signed a "Blasting Deed", to confirm the agreement for the manner in which blasting operations would be undertaken by WCPL adjacent to the ARTC managed railway line. This agreement included a ground vibration limit of 80 mm/sec for railway culverts.

On 25 March 2013 ARTC agreed to increase the limit to 100 mm/sec (refer to **Appendix 3** for correspondence). This increased limit is consistent with the vibration damage assessment criterion recommended in the *German Standard DIN 4150-3 Structural Vibration Part 3: Effects of Vibration on Structures* (February 1999) (SLR, 2015).

ARTC has also agreed to a ground vibration limit of 200 mm/sec for railway lines, with monitoring to be undertaken when blasting is within 100 metres of the line. Further details on blasting adjacent to railway lines are provided in **Section 5.3.1**.

On the 5 September 2018, MWRC agreed to the proposed ground vibration limits when blasting close to public roads, proposed by WCPL in August 2018 (**Appendix 3**).

4.1.2 Ground Vibration Criteria for Archaeological Structures

There are no regulatory criteria nominated in Australia for the assessment of damage to archaeological/geological structures from vibration. Research, however, has been undertaken by the US Army Corps of Engineers into the effects of large surface blasts on the dynamic stability of unlined tunnels of various diameters in sandstone and granite (Dowding, 1985). The results of the research indicated that intermittent rock fall or observable damage did not occur until vibration levels exceeded 460 mm/s.

The WEP NIA (SLR, 2015) applied a conservative safe blast design vibration criterion of 250 mm/s applicable to archaeological/geological structures. At a maximum instantaneous charge (MIC) of 3,900kg the safe working distances to meet the 250 mm/s for archaeological/geological structures was 82 m. Therefore, blasting outside of approximately 100 m of the Project open cut extensions, the criterion of 250 mm/s was predicted to be met, without the need to limit the MIC (SLR, 2015). Any potential blasting impacts would continue to be managed and monitored in accordance with the requirements of the BMgtP (as amended from time to time) to address the Project requirements, which may include more stringent performance measures for rock art sites than the assessment criteria of 250 mm/s (SLR, 2015).

WCPL has identified the damage vibration criterion of 250 mm/s applicable to archaeological/geological structures. Additional performance criteria for ground vibration at the identified Aboriginal rock shelter sites with art is 80 mm/s. These limits are shown in **Table 10**. The location of heritage sites for blast monitoring are provided in **Table 14** and shown in **Figure 9**. For further information regarding blast monitoring of rock art and rock shelter sites refer to WCPL's Aboriginal Cultural Heritage Management Plan (ACHMP).

Table 10 Ground Vibration Criteria for Archaeological Sites

Location	Purpose	Source	Ground vibration (mm/s)	Monitoring Required
Archaeological Sites 72, 152 and 153 within ML [1, 2]	Performance Indicator[5]	SLR, 2015	80	When blasting within 1 km
	Damage Criteria[6]	SLR, 2015	250	
Archaeological Sites WE7, WE10 & WCP535 in the Munghorn Gap Nature Reserve [3]	Performance Indicator[5]	SLR, 2015	80	Representative site when blasting within 1 km
	Damage Criteria[6]	SLR, 2015	250	
Archaeological Sites WE76 & WE77 in the Munghorn Gap Nature Reserve [4]	Performance Indicator[5]	SLR, 2015	80	Representative site when blasting within 1 km
	Damage Criteria[6]	SLR, 2015	250	

Notes:

1. When blasting near Archaeological sites, blasts are designed to limit flyrock in direction of site. In addition, adjusting the MIC, timing and direction of firing assist in controlling vibration.
2. Sites 152 and 153 are fixed sites and are continuously monitored because of the difficult terrain. Site 72 is fixed in terms of the geophone, but the monitor is set-up for each blast that is within 1 km.
3. Nearest rockshelters in the Munghorn Gap Nature Reserve within 100m to mining area of Pit 1 (south).
4. Nearest rockshelters in the Munghorn Gap Nature Reserve within 100m to mining area of Pit 5 (south).
5. Exceedence of the Performance Indicator will require inspection of heritage sites (**Section 5.7**).
6. Exceedence of the Damage Criteria ground vibration will require inspection of heritage sites (**Section 5.7**) and reporting in accordance with **Section 9.1.3.**

4.1.3 Ground Vibration and Airblast Overpressure Criteria for Livestock

The WEP NIA (SLR, 2015) described the results of studies undertaken by Casaday and Lehmann (1967) into the effects of vibration on livestock animals. The study by Casaday and Lehmann (1967) found that cattle were affected by sonic booms, measuring between 125 dB to 136 dB and that a conservative criterion of 125 dB be adopted for the purposes of assessment of livestock impacts. The study by Heggies (2006) found that cattle are commonly exposed to vibration levels in excess of 200 mm/sec during road transportation with no adverse effects on the cattle's health. It was consequently presumed that there would only be an effect on cattle's health at vibration levels well in excess of 200 mm/sec.

WCPL has adopted the findings from these two studies as performance indicators i.e. overpressure 125 dB and vibration 200 mm/sec. If WCPL receives a complaint from the owner of livestock within 2 km of the Mine regarding impacts on livestock, WCPL will investigate and undertake monitoring (as required and in consultation with the landowner) to ensure the performance indicators are being achieved. These limits are shown in **Table 11**.

Locations and monitoring requirements will be determined as required, in consultation with affected landholders. Noting that the land within 2 km is either NPWS, MCO or Peabody owned land, with the majority of livestock located on Peabody owned land.

Table 11 Ground Vibration and Airblast Overpressure Criteria for Livestock

Location	Purpose	Source	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Monitoring Required
As agreed with livestock landholder	Performance Indicator	Heggies (2006)	-	200	As agreed with affected landholder
	Performance Indicator	Casaday and Lehmann (1967)	125	-	As agreed with affected landholder

4.1.4 Ground Vibration Criteria for Historical Mine Adit

The WEP NIA (SLR, 2015) identified ground vibration may potentially impact a historical mine adit which is located approximately 150 m west from the edge of Pit 8 (**Figure 9**). Biodiversity Monitoring Services (2015a) recorded a roost site of the Eastern Bentwing-bat in the historical mine adit. The adit (and its entrance) is propped up with timber from original mine workings but the entrance shows signs of ongoing naturally induced rock fall. The adit is a man-made structure that will collapse at some stage, irrespective of the Project. Further, the current stability of the adit appears to be adversely affected by a large tree root which is breaking through the adit roof and causing rock fall around the entrance.

Stabilisation of the mine adit entrance in accordance with the BMP occurred in December 2019.

Table 12 presents WCPL's blast impact assessment criteria from the Development Consent (SSD-6764) for ground vibration monitoring of the historical mine adit.

Table 12 Ground Vibration Criteria for Historical Mine Adit

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Monitoring Required
Historical Mine Adit	-	80	For all blasts in Pit 8

4.1.5 Ground Vibration Measuring Equipment

Typically, the measurement of ground vibrations at WCPL will use transducers for particle velocity (geophone) and be expressed in millimetres per second (mm/s). A vibration transducer should produce signals for three mutually orthogonal axes and preferably with one sensor measuring the vertical direction and the other two in horizontal directions. Data records in three orthogonal directions may be transformed into any other curvilinear coordinate system that is relevant to the structure of concern.

The measurement equipment should record and be able to play back these signals for the full duration of the blast event. The measurement equipment, or associated software, should indicate the absolute maximum signal value for each of the three components over this duration, referred to as the Peak Component Particle Velocity (PCPV) or Peak Particle Velocity (PPV).

Also, the measurement equipment should indicate the maximum of a root sum of squares calculation for the three components performed over the whole signal duration, referred to as the Vector Peak Particle Velocity (VPPV)[6].

For more information refer *Australian Standard AS 2187.2 Explosives—Storage and use Part 2: Use of Explosives*.

[6] WCPL requirement to monitor VPPV comes from the agreement with ARTC and the reference to the German Standard *DIN 4150-3 Structural Vibration Part 3: Effects of vibration on structures (February 1999)*. This standard was used as a basis for the allowable vibration limits within the ARTC and MWRC agreements.

4.2 Dam Safety Committee Approval

WCPL's DSC Approval contains a number of conditions that must be complied with when blasting adjacent to the on-site tailings dams (**Appendix 2**). These include:

a) Annexures D and D1 – Standard Mining Conditions – specify what is required to be done by WCPL and what DSC may do following certain triggers; and
b) Annexure E – Frequency of Monitoring and Reporting – specifies the frequencies of monitoring and reporting and the format of reports i.e. the deliverables required by the approval; and
c) The DSC approved plan (showing the area that the approval relates to) is included **in Appendix 2** and shown in **Figure 11**.

4.3 Performance Indicators

The following performance indicators will be used when assessing the performance of the Mine:

- Blast emission monitoring results show 100% compliance with the Blast Criteria in **Table 7** and the ground vibration criteria in **Table 8**, **Table 9, Table 10** and **Table 12**;
- No mining induced changes to the baseline condition of monitored rock art sites and rockshelter sites;
- No blast fume rated 3 or higher; and
- Investigations into any livestock impact complaints shows 100% compliance with adopted performance indicators in **Table 11**.

Section 6.4 details the Contingency Plan to be implemented to manage any unpredicted blast impacts. **Section 9.0** details the reporting that will be undertaken by WCPL against the above performance indicators.

4.4 Blast Hours

WCPL will only carry out blasting activities between 9 am and 5 pm, Monday to Saturday inclusive. No blasting will be carried out on Sundays, public holidays, or at any other time without the written approval of the Secretary.

4.5 Blasting Frequency

WCPL will comply with the following blasting restrictions:

- A maximum of 2 blasts per day; and
- A maximum of 5 blasts per week, averaged over a calendar year.

These restrictions do not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, blast misfires or blasts required to ensure the safety of the Mine or its workers.

Notes:

- A blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the Mine.
- For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast.
- In circumstances of recurring unfavourable weather conditions (following planned but not completed blast events), to avoid excess explosive sleep times and minimise any potential environmental impacts, WCPL will seek agreement from the Secretary for additional blasts to be fired on a given day.

4.6 Property Inspections

If WCPL receives a written request from the owner of any privately-owned land within 3 kilometres of any approved open cut mining pit/s on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request, WCPL will;

a) Commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to;
   - Establish the baseline condition of any buildings and other structures on the land, or update the previous property inspection report; and
   - Identify measures that should be implemented to minimise the potential blasting impacts of the Mine on these buildings and/or structures; and

b) Give the landowner a copy of the new or updated property investigation report.

If there is a dispute over the selection of the suitably qualified, experienced and independent person, or WCPL or the landowner disagrees with the findings of the property inspection report, either party may refer the matter to the Director-General for resolution.

It is noted for the purposes of this requirement, the closest Private Receivers with a residential structure is Property ID 933, Property ID 903[7] and Property ID 908[8]. The remaining Property ID 959 is a vacant land block.

WCPL will notify Private Receivers within 2 km of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated.

4.7 Property Investigations

If any owner of privately-owned land within 3 kilometres of any approved open cut mining pit/s on site, or any other landowner where the Secretary is satisfied an investigation is warranted, claims that buildings and/or structures on his/her land have been damaged as a result of blasting associated with the development, then within 2 months of receiving this request, WCPL will;

a) Commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to investigate the claim; and
b) Give the landowner a copy of the property investigation report.

If the independent property investigation confirms the landowner's claim, and both parties agree with the findings, WCPL will repair the damages to the satisfaction of the Secretary.

If there is a dispute over the selection of the suitably qualified, experienced and independent person, or WCPL or the landowner disagrees with the findings of the independent property investigation, either party may refer the matter to the Secretary for resolution.

[7] WCPL purchased Property ID 903 on 11 March 2019
[8] WCPL purchased Property ID 908 on 27 July 2020

5 Blast Management and Control Measures

5.1 Public Notification

Any Private Receiver that registers an interest in being informed of the blasting schedule shall be notified via either telephone or e-mail, or as otherwise agreed between the parties. Those same landholders will be notified of a misfire if more than one hour has elapsed since the time of the blast, or where the misfire is greater than 30% of the original blast size.

WCPL maintains an up to date free-call Blasting Hotline to provide the community with information on the blasting schedule. The Blasting Hotline number is **1800 649 783**. The Blasting Hotline will be advertised in local newspapers at least quarterly, via the Wilpinjong Community Newsletter and on the WCPL website.

Road closure notification boards will be maintained on the Ulan-Wollar Road and Wollar Road and will reflect the most current blasting program. Every effort will be made to give at least three days warning of impending road closures although short-term blasting demands may limit the notification period.

5.2 Blast Management

WCPL will:

(a) Implement feasible and reasonable measures to:

- protect the safety of people and livestock in the area surrounding blasting operations;
- protect public or private infrastructure/property and heritage items in the area surrounding blasting operations from blasting damage;
- minimise blasting impacts on the Shale Oil Mine Adit containing the Eastern Bentwing-bat roost site located adjacent to Pit 8; and
- minimise the dust and fume emissions from blasting at the development;

(b) Ensure that blasting at the Mine does not:

- damage any identified rock shelters with moderate to high Aboriginal cultural heritage significance located within the Munghorn Gap Nature Reserve; and
- cause more than negligible damage to any identified rock shelters with low Aboriginal cultural heritage significance located within the Munghorn Gap Nature Reserve;

(c) Limit temporary blasting-related road closures to 1 per day;

(d) Co-ordinate the timing of blasting on site with the timing of blasting at the adjoining Moolarben and Ulan coal mines to minimise the potential cumulative blasting impacts of the three mines;

(e) Operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site; and

(f) Carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent.

5.2.1 Blast Protocol

WCPL has developed a blast protocol to ensure the safety of people, property, livestock and infrastructure. Key features of this protocol include:

- A minimum blasting exclusion zone of 500 m applies for persons;

- Pre-blast inspections are undertaken to ensure that no persons, property or livestock are at risk from blasting;
- Sentries are posted on all access points to ensure that there is no possible access to the blasting exclusion zone;
- No blasting will occur within 500 m of Private Receivers without consultation with relevant landholders;
- Prior to carrying out any blasting within 500 m of a public road or railway, WCPL will obtain written approval from MWRC (in respect of Ulan-Wollar Road and Wollar Road) and ARTC (in respect of the Gulgong-Sandy Hollow railway). Refer to **Section 5.3** for further details;
- When blasting within 1km of Aboriginal rock art sites (in particular Site 72) WCPL will monitor blast impacts to maintain the structural integrity of the sites;
- When blasting within 1km of Aboriginal heritage sites within the Munghorn Gap Nature Reserve (**Table 10**) WCPL will monitor blast impacts to maintain the structural integrity of the sites;
- Monitoring of blasts within in Pit 8 at the Historical Mine Adit;
- Development and ongoing review of "site laws" (site-based prediction equations) for ground vibration and airblast overpressure;
- Notification of blasting times provided to closest Private Receivers on request;
- Manage misfires in a safe manner and in accordance with BMgtP; and
- Visual monitoring of all of blasts with video records of significant blasts.

5.2.2 Blast Design and Control Procedures

WCPL use drill and blasting to fracture overburden material prior to removal. A mixture of ammonium nitrate and fuel oil (ANFO) (dry holes) and emulsion blends (wet holes) are used.

Detailed blast design is undertaken for each blast in order to maximise the blast efficiency, minimise dust, fume, ground vibration and airblast overpressure, and ensure compliance with the Blast Criteria. Blasting will be postponed in Pits 3, 7 and Pit 8 (**Figure 13**) when winds are from the west at 7 m/sec or greater. All blasting will be postponed when winds are at 10 m/sec or greater. Blast fume will be managed in accordance with the Blast Fume Management Strategy contained in **Appendix 4**.

WCPL is trialling the following as part of its blasting process to prevent blast fume events, including:

- Installation of Blastshield - a lining for blast holes that provides a barrier to stop the ingress of water and potential product degradation. Blastshield will also contain blasting product within the blast hole as intended if the surrounding material is compromised; and
- A trailer mounted blast hole dewatering pump has been sourced, to pump water from blast holes, allowing for the installation of the Blastshield.

Blast design and control procedures will be implemented, including:

- Training all relevant personnel on environmental obligations and safe handling of explosives;
- Inspections and preparation of proposed blast areas to ensure all soft, loose or blast damaged material is removed prior to drilling;
- Designing blasts to ensure that ground vibration and airblast overpressure criteria are met, and there is no damage to life or property from flyrock, including consideration of wind speed, direction and other meteorological factors prior to blasting to minimise impacts on neighbours;
- Notification of blasting times to Private Receivers and maintenance of a free-call Blasting Hotline;
- Use of adequate stemming, a delay detonation system, and careful drilling and hole loading to ensure that the required blast design is implemented;
- Assessment of wind speed and direction immediately prior to each blast to minimise the potential for dust emissions from blasting to adversely impact on Private Receivers;

- Monitoring of blasts at the closest Private Receivers (or within a representative location) to determine whether ground vibration and airblast overpressure criteria are met;
- Completion of the Blast Controller Checklist;
- Review of monitoring results and modification of the blast design, if necessary;
- Documentation of the date and time of the blast, location of blast holes and quantity of explosive used in each blast;
- Maintain all plant and equipment in a proper and efficient condition;
- Operate all plant and equipment in a proper and efficient manner; and
- Periodic review of blast management practices to evaluate performance and identify responsive action, if required.

5.3 Blasting Adjacent to Public Infrastructure (within 500m)

WCPL will not undertake blasting on site within 500 metres of any public road or railway, or any land outside the Mine not owned by WCPL, unless WCPL has:

(a) A written agreement with the relevant infrastructure owner or landowner to allow blasting to be carried out closer to the infrastructure or land, and WCPL has advised the Department in writing of the terms of this agreement; or

(b) Demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the infrastructure or land without compromising the safety of people or livestock or damaging the infrastructure and/or other buildings and structures, and updated the BMgtP to include the specific mitigation measures that would be implemented while blasting is being carried out within 500 metres of the infrastructure or land.

5.3.1 Blasting Adjacent to Railway Lines

With respect to **Section 5.3(a)**, WCPL and ARTC have developed an agreed “Blasting Deed” which sets out the terms under which WCPL can undertake blasting adjacent to the Gulgong-Sandy Hollow Railway Line (**Appendix 3**). **Table 13** summarises the agreed arrangements.

All blasts will be monitored in accordance with **Section 6.0**. Results will be reviewed and evaluated (**Section 6.3.5**) and provided to ARTC as agreed. Results that are deemed to have exceeded their respective criteria will be managed in accordance with **Section 6.3.6**.

Table 13 Agreed Arrangements for Blasting adjacent to the ARTC Managed Railway Line

Requirement	Timing	Responsible Person
Within 500m but greater than 200m of the Gulgong-Sandy Hollow Railway Line		
The area Controller/Signaller station shall be notified and train timetables obtained to ensure that the track is clear for a minimum of 2 km in either direction of the blast area at the time of the blast.	Prior to the intended blast time	PO2 Level Rail Possession Officer
If it is observed that flyrock had landed on or near the track or ground vibration limits in **Table 9** have been exceeded (as advised by Drill & Blast Engineer), the track and any associated structures shall be inspected to ensure there is no flyrock on the track and to ensure that no damage to the track or associated structures has occurred.	The nearest area Controller/ Signaller shall be notified immediately.	PO2 Level Rail Possession Officer
The track will be inspected and certified as fit for traffic.	After flyrock removed from track and/or exceedance of ground vibration limit	Certified track examiner such as the ARTC recognised PW52/53 qualified person
Within 200 m but greater than 100 m of the Gulgong-Sandy Hollow Railway Line		
Short notice possessions will be arranged in consultation with the appropriate ARTC Possessions/ Logistics Coordinator. Notice will be given of any blasting within 200 m but greater than 100 m of the Gulgong-Sandy Hollow Railway Line.	At least 7 days prior to blast	Drill and Blast Engineer
If any approved or programmed blast cannot be performed as scheduled the coordinator is to be notified to allow rescheduling of operations.	As soon as possible	Drill and Blast Engineer
The relevant ARTC team member must be notified again, once the blast is rescheduled.	At least 7 days, and again 12 hours prior to blast.	Drill and Blast Engineer
The area Controller/Signaller will be notified and timetables for scheduled services will be provided. Blasting times will then be scheduled to avoid services, in consultation with the area Controller/Signaller. A minimum of 30 minutes is required to allow for the shot to be fired and inspection of the track made, if required.	Prior to blast	PO2 Level Rail Possession Officer
WCPL will take possession of the track by way of a suitably qualified and ARTC recognised Protection Officer (at least a PO2 qualified) prior to blasting. WCPL will ensure vibration and blasting monitoring points are setup as per clause 4.6.4 of the Blasting Deed.	Prior to blasting	Drill and Blast Engineer
If it is observed that flyrock had landed on or near the track or ground vibration limits in **Table 9** have been exceeded (as advised by Drill & Blast Engineer), the track and any associated structures shall be inspected to ensure there is no flyrock on the track and to ensure that no damage to the track or associated structures has occurred.	The nearest area Controller/ Signaller shall be notified immediately.	PO2 Level Rail Possession Officer
The track will be inspected and certified as fit for traffic.	After flyrock removed from track and/or exceedance of ground vibration limit	Certified track examiner such as the ARTC recognised PW52/53 qualified person
Within 100 m of the Gulgong-Sandy Hollow Railway Line		
The railway will be inspected and the track certified as fit for traffic prior to hand back.	Prior to the Protection Officer fulfilling the short notice possession (traffic hand back)	Certified track examiner such as the ARTC recognised PW52/53 qualified person
Any changes/damage to ARTC infrastructure or safety incidences will be reported immediately to the relevant ARTC Team Manager (including instance where flyrock lands in the rail corridor). The team manager or his/her nominated person will be responsible for managing repairs to ARTC infrastructure (in consultation with WCPL) with costs associated with the repairs to be borne by WCPL.	Report immediately	Certified track examiner such as the ARTC recognised PW52/53 qualified person

5.3.2 Blasting Adjacent to Public Roads

With respect to **Section 5.3(a)**, WCPL have written agreements with MWRC when proposing to undertake blasting adjacent to both Ulan-Wollar Road and Wollar Road within 500 m (**Appendix 3**). The agreed process of this agreement is provided below. All WCPL blasts occurring near MWRC owned roads (i.e. the Ulan-Wollar Road and Wollar Road) will be monitored in accordance with **Section 6.0**. Results will be reviewed and evaluated (**Section 6.3.5**) and provided to MWRC as required. Results that are deemed to have exceeded their respective criteria will be managed in accordance with **Section 6.3.6**.

Temporary Road Closures

Ulan-Wollar Road will be temporarily closed whenever blasting is carried out within 500 m of the road as a precautionary measure to ensure public safety. A Road Closure Plan has been prepared in consultation with MWRC for blasting activities within 500 m of the Ulan-Wollar Road (**Appendix 3**).

These closures are typically for a period of less than 20 minutes and no more than one closure per day. Designated Mine personnel who have received Roads and Maritime Services (RMS) approved traffic controller training will manage traffic flow during these closures.

Traffic control signs will be set up in accordance with the RMS/ MWRC guidelines. Adequate training will also be provided on the Roads and Traffic Authority's (RTA) Traffic Control at WorkSites Manual (RTA, 2008) for the purpose of setting up and removing traffic control and controlling any on-site hazards. All temporary road closures will be scheduled, where practicable, for outside peak traffic flow periods. In particular, school bus times will be avoided. Roads will be closed to traffic by qualified traffic controllers approximately five minutes prior to any blast. Traffic controllers will remain in radio contact with the Mine throughout the closure period, to enable cessation of the blast in the case of emergency.

Notification of Road Closures

Notification of temporary road closures will be co-ordinated with MWRC, as necessary, to meet their requirements. Notice of temporary road closures will be provided via the posting of signs on the relevant roads at least three days prior to blasting and notifying the MWRC one day prior to the blast. It is not practical to notify all relevant emergency services of temporary road closures well in advance of scheduled blasts as it is necessary to consider weather conditions when determining when to blast. All relevant emergency services have been contacted by telephone and informed of the Mine's temporary road closure procedures. They have been advised that, if requested, they can be notified by telephone or email within two hours of a planned blast time. Advice of road closures will also be provided on the blasting hotline (**Section 5.1**).

Flyrock Removal and Road Maintenance

All blasts will be visually inspected and monitored to determine whether any flyrock is generated. If it appears possible that flyrock may have landed on the road after a blast event, then prior to re-opening roads, the blast controllers will undertake a visual inspection of the roads to ensure that it is safe for traffic to proceed. In the event that flyrock has impacted upon public roads, traffic controllers will immediately notify the Mining Manager who will initiate a clean-up and repair response with removal of any rock. Traffic controllers will continue to keep roads closed and monitor road traffic until authorised to re-open the road by the Mining Manager. If required, WCPL will engage a suitably qualified contractor approved by MWRC to undertake any road repair works resulting from blast related activities. Notification will also be made to the relevant agencies.

5.4 Blasting Adjacent to Tailings Dams

Blasting is permitted adjacent to tailings dams TD3 and TD6 (**Figure 11**), in accordance with the DSC Approval (**Appendix 2**). In accordance with the conditions of the DSC Approval, WCPL will:

- Develop and implement a Monitoring Management Plan for the dams, including seepage and movement monitoring, to the satisfaction of the DSC (and review annually);
- Monitor and report ground vibration levels at the tailings dams (TD3, TD4, TD5 and TD6);
- Comply with the vibration criteria for tailings dams (50 mm/s);
- Notify the DSC of any exceedances of the vibration criteria or if seepage changes significantly (**Section 9.1.2**);
- Arrange for DSC staff to inspect the workings from time to time when required by the DSC;
- Ensure any applications for minor variations to the approved mine plans are prepared and submitted to the DSC in accordance with the DSC Approval conditions;
- Provide various reports i.e. coal tonnage, active face location, at intervals specified in Annexure E of the DSC Approval;
- Provide Statements of Compliance at intervals specified in Annexure E of the DSC Approval;
- Maintain an on-site Liaison Officer for DSC to contact as required;
- Not mine in the approved area after 31 December 2018 (unless date is extended by the DSC);
- Undertake safety inspections of the dams, to an acceptable standard to the DSC, after each blast; and
- Submit reports on the dam inspection results at intervals and in the format specified in Annexure E of the DSC Approval (**Section 9.6**).

5.5 Eastern Bentwing-Bat Management Strategies

Ground vibration may potentially impact the Eastern Bentwing-bat in a historical mine adit which is located more than 150 m west from the edge of Pit 8. The current stability of the adit appears to be adversely affected by a large tree root which is breaking through the adit roof and causing rock fall around the entrance.

WCPL have developed and implemented a Biodiversity Management Plan (BMP) as required by Development Consent (SSD-6764). Section 7.5 of the BMP outlines the management strategies for the Eastern Bentwing-bat population which inhabit a historical mine adit. A summary of the management strategies from the BMP include:

- When active mining is underway, a permanent vibration monitoring to record blasting events in Pit 8;
- Video monitoring at the entrance of the adit to record if bats leave the adit as a result of blasting (the use of video recording will continue for such time as there is no evidence to suggest that blasting results causes a measurable disruption to the bats using the adit as a roosting site);
- To mitigate the potential for future collapse of the entrance, the entrance of the adit[9] has been stabilised with a section of pipe culvert inserted in the front of the adit (≈900mm) and existing rock debris removed;
- The pipe has been inserted into the opening of the adit to support the section which currently appears unstable. Note, this was done so that the pipe extends beyond any rock fall potential (and to allow water to drain away);

WCPL have implemented a monitoring program to assess the impacts on the Eastern Bentwing-bat which will include collecting more quantitative data in relation to bat usage of the adit site over the three seasons and would be undertaken as follows:

- Bat counts will be undertaken at the start of each survey to assess the total number of bats roosting within the workings. An Anabat detector will also be utilised to assess activity of the target species throughout the night.

[9] Stabilisation of the mine adit entrance in accordance with the BMP was completed during 2019.

- Bats exiting the roost will be captured via harp trap (or similar equipment) to assess the species composition as well as sexual composition of residing bats.
- Marking of bats will be undertaken to allow an estimate of the number of each species present.
- A monitoring report will be prepared on the results of each survey.
- An assessment of the adit will also be undertaken while on site and recommended actions will be provided to stabilise the adit into the future without adversely impacting residing microbat populations.

The results for the Eastern Bentwing-bat blast monitoring and management strategies will be provided in the Annual Review.

5.6 Cumulative Blast Management

In March 2011 UCML developed a Blast Notification Protocol in conjunction with MCO and WCPL (copy of correspondence included in **Appendix 3**). This Protocol included provisions for the coordination of blasting activities between the three mines, to minimise cumulative impacts on the surrounding community.

WCPL will continue to co-ordinate the timing of blasting on site with the timing of blasting at MCO and UCML to minimise the potential cumulative blasting impacts of the three mines. WCPL will review (and revise if necessary) the Protocol in conjunction with MCO and UCML, to ensure it is kept up-to-date.

In addition to the Protocol, WCPL have entered into data sharing arrangements, and frequently consult with MCO and UCML to assist in cumulative impact management.

5.7 Rock Shelter Management Strategies

To ensure that blasting at the site does not damage any identified rock shelters with art (refer to **Table 14 & Figure 9**), rock shelters with moderate to high Aboriginal cultural heritage significance located within the Munghorn Gap Nature Reserve (refer to **Table 14 & Figure 9**); and cause more than negligible damage to any identified rock shelters with low Aboriginal cultural heritage significance located within the Munghorn Gap Nature Reserve (refer to **Table 14 & Figure 9**), WCPL undertake the following:

- A re-assessment of the condition of rock art sites will be undertaken by a qualified archaeologist prior to blasting within 1km of these sites and a baseline assessment of rock shelters within the Munghorn Gap Nature Reserve will be undertaken by a qualified archaeologist prior to blasting within 1km of these sites;
    - The qualified archaeologist will assess the significance of each relevant identified rock shelter site (using AHIMS records, and where sufficient information is not available, by undertaking a site inspection). If insufficient photographic documentation/baseline data is available for a site prior to blasting, additional recording of the site will occur to ensure baseline data for comparison is present to ensure that potential blasting impacts can be identified and can be distinguished from pre-existing impacts or impacts relating to other causes, such as natural erosion and rockfall;
- Identify through an OEH AHIMS search and searches of the relevant WCPL sites database the specific identified Aboriginal rock shelter sites within the Munghorn Gap Nature Reserve to which Condition 12(b), Schedule 3 of Development Consent (SSD-6764) may apply;
- Blasting will be managed (refer to **Section 4.1.2**) to ensure that the relevant performance indicator of 80 millimetres per second and relevant damage criteria of 250 millimetres per second are maintained;
    - If blast monitoring records >80 millimetres per second:

- WCPL will inspect the condition of the relevant rock shelter within 7 days to identify if any impacts have occurred;
- If no impacts have occurred, a review of blast design for blasting within 1km of heritage sites (**Section 5.2.2**) will be undertaken;
- If impacts have occurred as a result of blasting:
    - WCPL will arrange to have a qualified archaeologist inspect the condition of relevant rockshelters;
    - Notify the RAPs once the condition report of the rock shelters by the qualified archaeologist has been finalised;
    - Report in accordance with **Section 9.1.3**; and
    - Complete a review of blast design for blasting within 1km of heritage sites (**Section 5.2.2**).

- If blast monitoring records >250 millimetres per second:
    - WCPL will report to the DPIE and OEH immediately upon confirming the exceedance in accordance with **Section 9.1.3**.
    - WCPL will inspect the condition of the relevant rock shelter within 7 days to identify if any impacts have occurred:
    - Arrange to have a qualified archaeologist inspect the condition of relevant rockshelter;
    - Notify the RAPs once the condition report of the rock shelters by the qualified archaeologist has been finalised; and
    - Complete a review of blast design for blasting within 1km of heritage sites (**Section 5.2.2**).
- If blast monitoring records <80 millimetres per second, an annual inspection by a qualified archaeologist and representatives from the RAPs to note the condition of either all or a representative sample of the relevant identified rock shelter sites will be inspected by WCPL to identify if any perceptible physical impacts (i.e. compare with baseline condition) have occurred that may relate to blasting; and

- The monitoring results will be used to compare potential visible impacts against the approved Blast Management Plan ground vibration criteria to ensure that those criteria continue to represent “suitable management limits” below which it is unlikely that impacts will occur. The results of the monitoring will be used to inform future blast management at the Mine.

Should an exceedence of the Consent Condition 12(b), Schedule 3 occur, the procedures in **Section 6.3.6** will be followed.

6 Blast Monitoring Program

WCPL's Blast Monitoring Program includes monitoring of airblast overpressure and ground vibration for all blasts at locations as close as reasonably practical to the nearest Private Receiver. Monitoring will also be undertaken at relevant public infrastructure and Aboriginal heritage sites (**Table 9** and **Figures 9-12**) and a microbat roosting site.

The objective of the monitoring is to obtain assurance that Blast Criteria are being achieved at Private Receivers and that damage criteria are being achieved for public infrastructure and Aboriginal heritage sites. Further information on the management of Aboriginal heritage sites can be found in WCPL's Aboriginal Cultural Heritage Management Plan.

6.1 Meteorological Monitoring

WCPL maintains a continuous on-site meteorological monitoring station that complies with the requirements of the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007). The location of this meteorological monitoring station is shown on **Figure 9**.

The meteorological station is routinely calibrated and maintained by appropriately accredited technicians.

The following parameters are monitored:

- Rainfall;
- Relative humidity;
- Temperature – measured at 2, 10 and 60 m above ground level;
- Wind speed – horizontal and vertical;
- Wind direction – measured at 10 m above ground level;
- Sigma theta;
- Pasquil stability classification;
- Solar radiation; and
- Temperature lapse rate.

6.1.1 Meteorological Assessment

WCPL will postpone blasting during adverse weather conditions, when there is the potential to cause dust and fume impacts to travel outside the Mine boundary. Adverse weather conditions are defined as westerly winds at speeds greater than 7 m/sec (when blasting in Pits 3 or 7 or Pit 8) (**Figure 13**).

WCPL will continue to review and implement the protocol to ensure compliance with regulatory requirements. A copy of any current meteorological assessment protocol will be reported in the Annual Review and provided to Private Receivers on request.

6.2 Blast Monitoring Locations

Monitoring locations for ground vibration and airblast overpressure are shown in **Table 14** and **Figures 9-12.**

Table 14 Blast Monitoring Locations

Location	Type	Easting	Northing	Justification
Wollar Public School	Airblast Overpressure and Ground Vibration	777403	6416219	Location approximately 50 m west of the Wollar Public School grounds
Aboriginal Rock Art 72	Ground Vibration	771744	6417347	Aboriginal Rock Art site identified in EA with potential to be impacted by ground vibration
Aboriginal Rock Art 152	Ground Vibration	768513	6416909	Aboriginal Rock Art site identified in EA with potential to be impacted by ground vibration
Aboriginal Rock Art 153	Ground Vibration	768566	6417468	Aboriginal Rock Art site identified in EA with potential to be impacted by ground vibration
Archaeological Sites[5] • **WE7** • **WE10** • **WCP535**	Ground Vibration	769407 769305 768910	6416785 6416622 6416557	Rock shelter identified in EIS 2016 with potential to be impacted by ground vibration
Archaeological Sites [6] • **WE76** • **WE77**	Ground Vibration	767354 767426	6416087 6416129	
Historical Mine Adit	Ground Vibration	774898	6418956	Eastern-Bentwing Bat roosting site identified in EIS 2016, with potential to be impacted by ground vibration
Railway Line/ Culvert[1]	Ground Vibration	Location dependent on blast	Location dependent on blast	Nearest rail infrastructure to the blast
Ulan-Wollar Road & Wollar Road [2]	Ground Vibration	Location dependent on blast	Location dependent on blast	Nearest public road and/or major road infrastructure to the blast
Transgrid Powerline Suspension Towers[3]	Ground Vibration	Location dependent on blast	Location dependent on blast	Footing of nearest tower to blasting location
Tailings Dam 3, 4, 5 or 6[4]	Ground Vibration	Location dependent on blast	Location dependent on blast	On crest of the closest Tailings Dam to blast i.e. on one of the four dams

Notes:

1. Monitoring of ground vibration will be undertaken at the closet rail infrastructure when blasting is within 100 m of the railway line and/or 350 m of a railway culvert. Indicative monitoring locations are shown on **Figure 9**.
2. Monitoring of ground vibration will be undertaken at Ulan-Wollar Road and Wollar Road when blasting is within 100 m of the road.
3. Monitoring of ground vibration will be undertaken at the closest Transgrid Powerline Suspension Towers when blasting is within 100 m of a tower.
4. Monitoring of ground vibration will be undertaken on the crest of the closest tailings dam to the blast when blasting within the DSC Approval area (refer **Figure 11**). Indicative monitoring locations are shown on **Figure 9**. It is noted that Tailings Dams (TD) 3, 4, 5 and 6 are referred to as TD2N, TD2S, TDSS and TD5, respectively, in the DSC Approval.
5. Nearest rockshelters in the Munghorn Gap Nature Reserve within 100m to mining area of Pit 1 (south) with low and/or uncertain significance.
6. Nearest rockshelters in the Munghorn Gap Nature Reserve within 100m to mining area of Pit 5 (south) with low and/or uncertain significance.

Figure 9: Blast Monitoring Locations

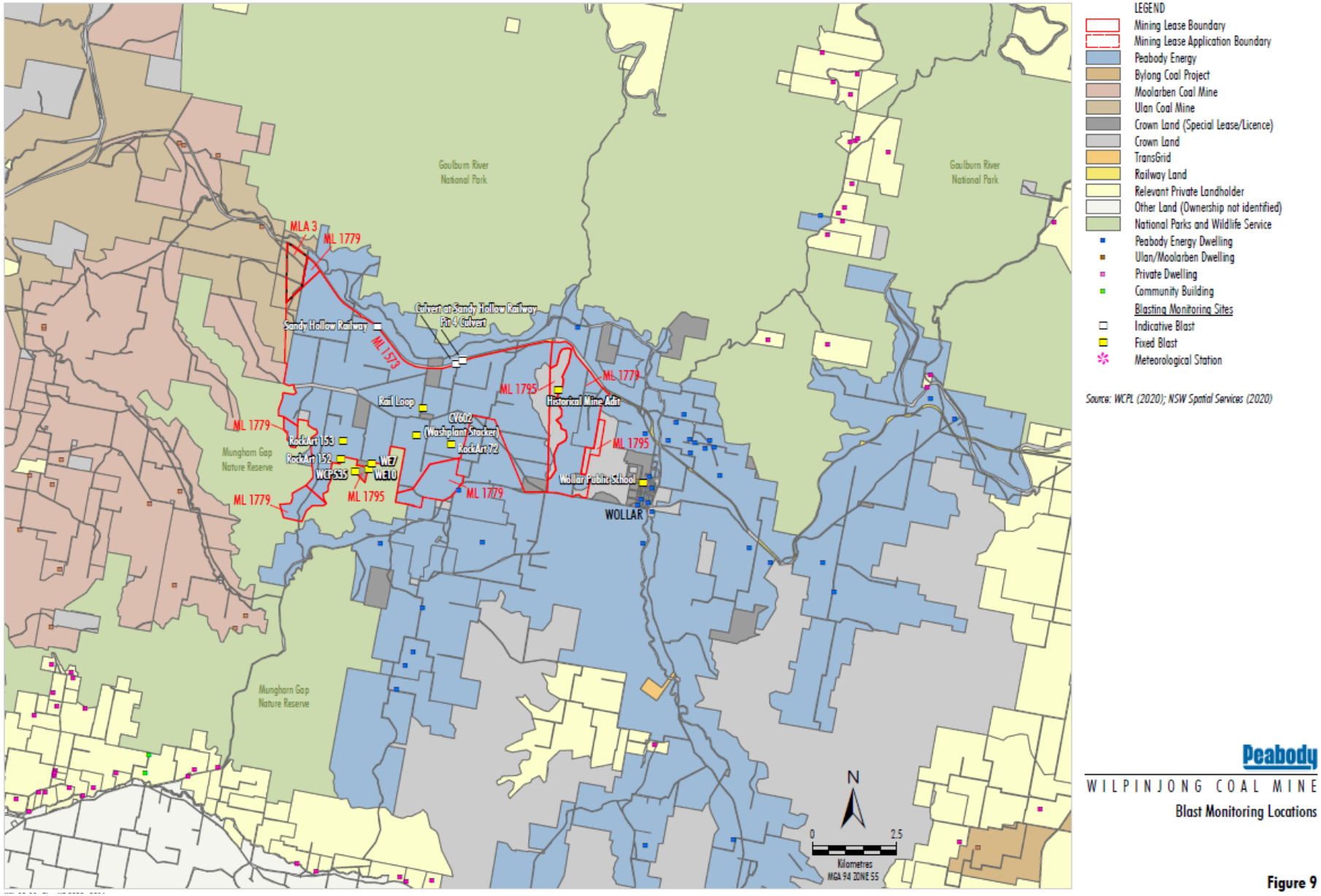


Figure 10: Blast Monitoring Locations – Wollar

LEGEND

- Peabody Energy
- Crown Land (Special Lease/Licence)
- Crown Land
- Railway Land
- Relevant Private Landholder
- 1 Landholder Reference Number
- Peabody Energy Dwelling
- Community Building
- Private Dwelling

Special Lease/Licence Holder

Blasting Monitoring Sites

- Fixed Blast

Source: WCPL (2020); NSW Spatial Services (2020)

Peabody

WILPINJONG COAL MINE

Blast Monitoring Locations
- Wollar

Figure 10

Figure 11: DSC Approved Area

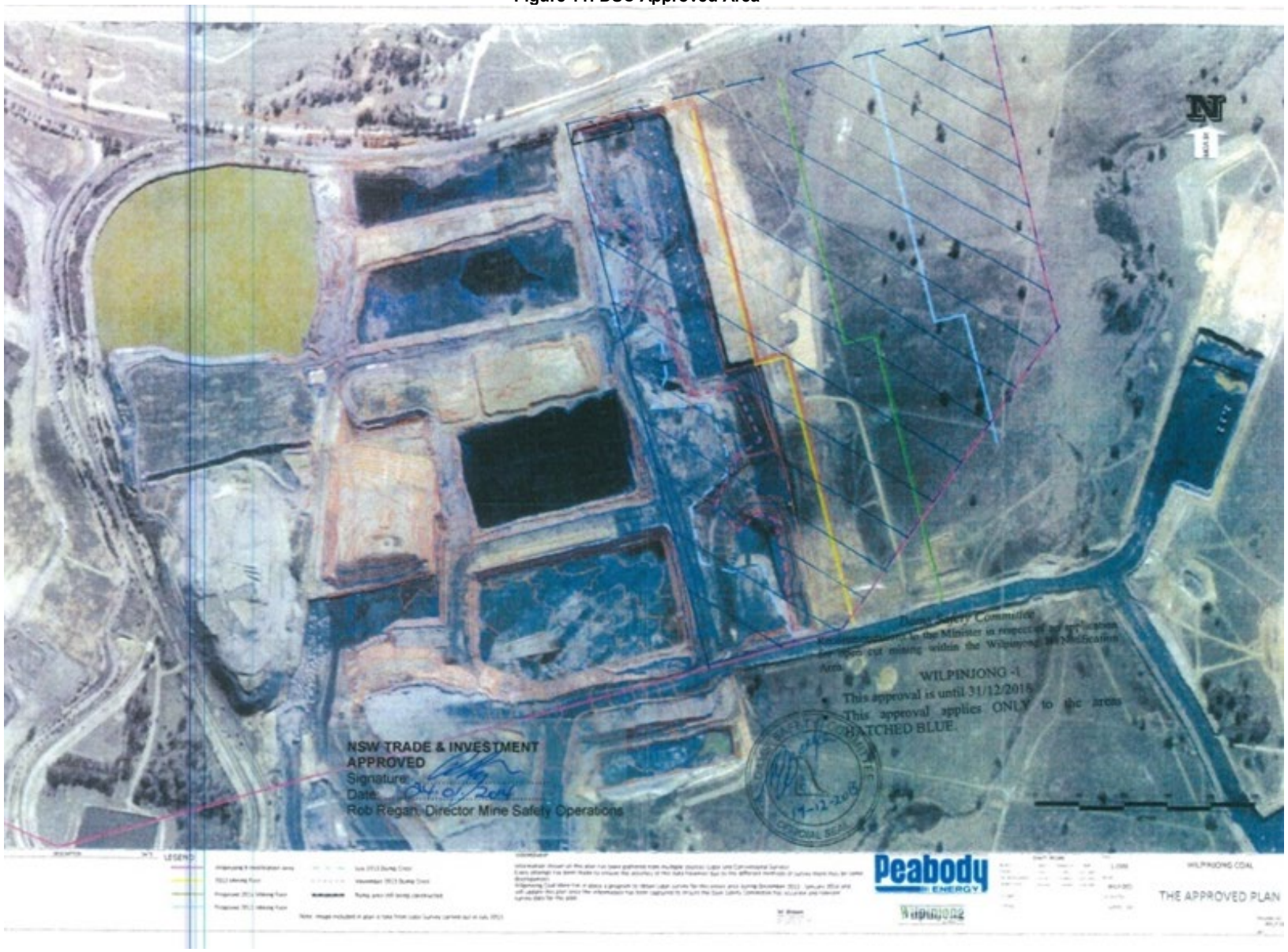
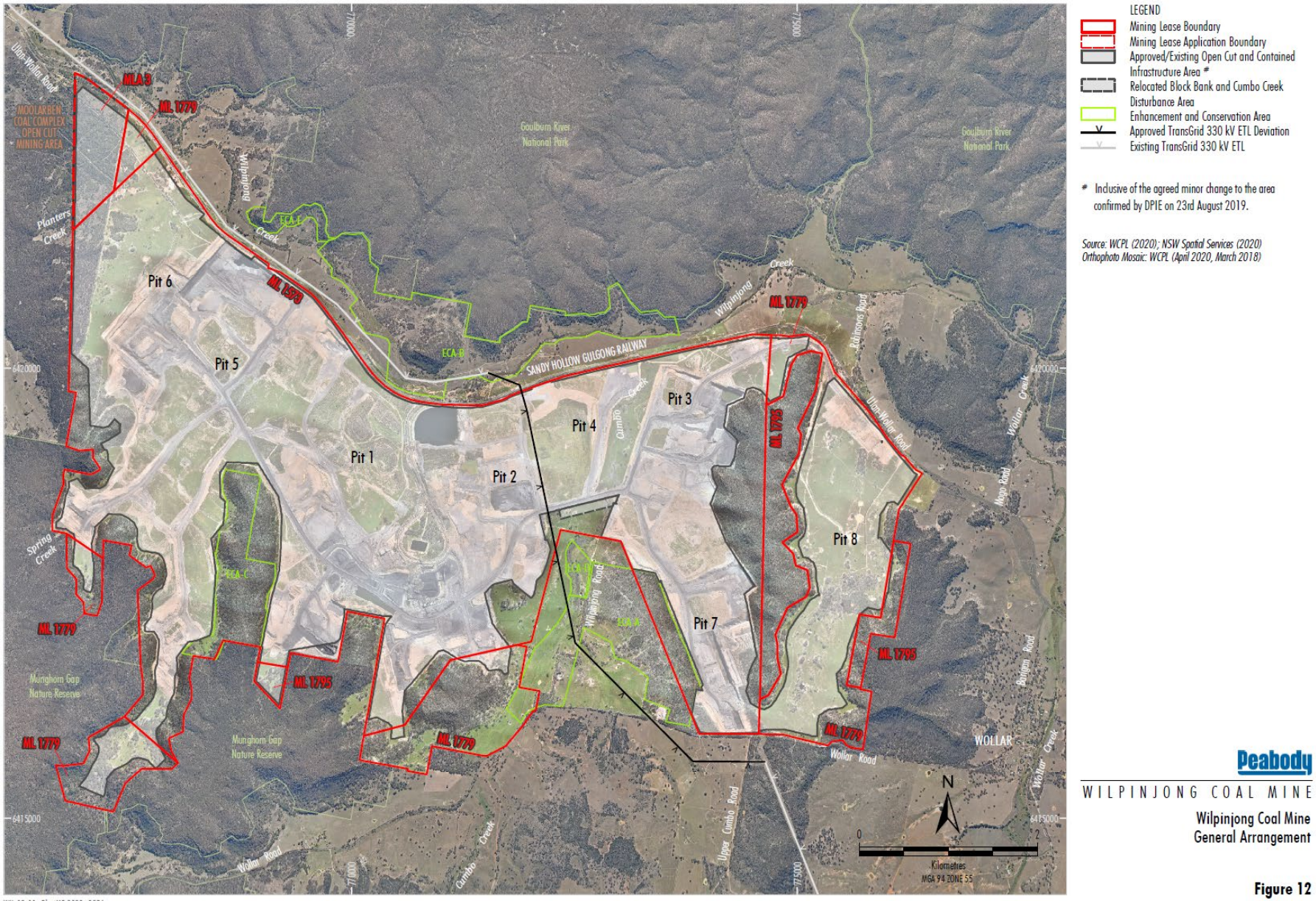


Figure 12 General Mine Layout



6.3 Blast Monitoring

6.3.1 Purpose

Blast monitoring is used for determining compliance against the Blast Criteria in **Table 7** and ground vibration criteria in **Table 8**, **Table 9, Table 10** and **Table 12**.

6.3.2 Summary

Blast monitoring will be undertaken in accordance with **Table 15**.

Table 15 Blast Monitoring Summary

Element	Description
Locations	As per **Table 14** and **Figures 9-12**
Period	During blast

Frequency	Ground Vibration
	• Every blast;
	• Monitoring during blast when blasting within:
	  ○ 350 m of railway culverts & major road infrastructure of nominated MWRC roads;
	  ○ 100 m of railway lines;
	  ○ 100 m of Ulan-Wollar Road and Wollar Road;
	  ○ 100 m of TransGrid powerline suspension towers;
	  ○ 1 km of Aboriginal rock art sites 72, 152 and 153;
	  ○ 1 km of Aboriginal Rock Shelters WE7, WE10 and WCP535;
	  ○ 1 km of Aboriginal Rock Shelters WE76 and WE77; and
	  ○ The DSC Approval Area at Tailings dam 3, 4, 5 or 6 (refer **Table 14**)

	Ground Vibration • Every blast (in Pit 8) at the Historical Mine Adit.
	Ground Vibration and Airblast Overpressure: • Every blast; and • Continuous monitoring approximately 50 m west of Wollar Primary School grounds, as required by Condition M8.1 of EPL 12425
Non-Compliance	Blast monitoring results exceeding the Blast Criteria in **Table 7** and or ground vibration criteria in **Table 8**, **Table 9, Table 10** and **Table 12**.
Exceedance Notification	To DPIE and EPA immediately, upon confirming the exceedance. To DSC immediately (for tailings dams) To the OEH (for Historical Mine Adit) To any directly affected landowners or infrastructure owners
Exceedance Reporting	Detailed report to DPIE and EPA within 7 days (see **Section 9.1.1**)

The blast monitoring program will be reviewed and, where necessary, revised over the life of the Mine, according to physical changes in mining operations, following the acquisition of privately-owned land by WCPL, or as a result of complaints.

In addition to the ground vibration and airblast overpressure monitoring described in **Table 15**, WCPL will also undertake blast fume monitoring in accordance with the Blast Fume Management Strategy, contained in **Appendix 4**.

6.3.3 Methodology

Instrumentation used to measure and record the ground vibration and airblast overpressure levels will meet the requirements of Australian Standard AS 2187.2-2006 (Explosives – Storage, Transport and Use - Use of Explosives).

Monitoring equipment used on-site will typically include a geophone (e.g. standard 4.5 hertz geophone with a range of up to ± 556 mm/s) and microphone (e.g. with a range of between 80 to 140 decibels). The monitoring equipment will display the due date of upcoming calibration. Calibration of the monitoring units will be undertaken by an off-site specialist.

6.3.4 Data Collection

WCPL utilise both permanent fixed and temporary roaming blast monitoring units to collect relevant blast monitoring data. Fixed units utilise a radio transmitter to enable instantaneous transfer of data to relevant personnel. This data can be immediately accessed to enable an initial compliance assessment. Data from the roaming units is collected and stored within the unit and is available for download upon return to the office.

6.3.5 Evaluation of Compliance

WCPL has developed a Compliance Review and Evaluation Process (**Figure 13**) that clearly illustrates when WCPL is deemed to be in non-compliance with the Blast Criteria in **Table 7** and **Table 8**, **Table 9, Table 10** and **Table 12.**

WCPL will be deemed in non-compliance when airblast overpressure and / or ground vibration results exceed the Blast Criteria in Table 7 and Table 8, **Table 9, Table 10** and **Table 12.**

Note: Error margins associated with any monitoring equipment used to measure airblast overpressure or ground vibration are not to be taken into account in determining whether or not the limit has been exceeded.

6.3.6 Response to Exceedance

Where any exceedance of the Blast Criteria has occurred, WCPL will, at the earliest opportunity:

- Take all feasible and reasonable steps to ensure that the exceedance ceases and does not recur;
- Consider all feasible and reasonable options for remediation (where relevant) and submit a report to the DPIE describing those options and any preferred remediation measures or other course of action (see **Section 9.1** for Reporting);
- Implement any remediation measures as directed by the Secretary; and
- Review and, if necessary, revise BMgtP (refer **Section 10.0**), to the satisfaction of the Secretary.

6.4 Monitoring Records

WCPL will ensure that all blast monitoring records are maintained as follows.

- In a legible form, or in a form that can readily be reduced to a legible form;
- Kept for at least four years after the monitoring or event to which they relate took place; and
- Produced in a legible form to any authorised officer of the EPA who asks to see them.

WCPL will record and maintain the following records for each blast event:

- The date(s) on which the monitoring was undertaken;
- The time(s) at which the monitoring was undertaken;
- The point at which the monitoring was undertaken; and
- The name of the person who conducted the monitoring.

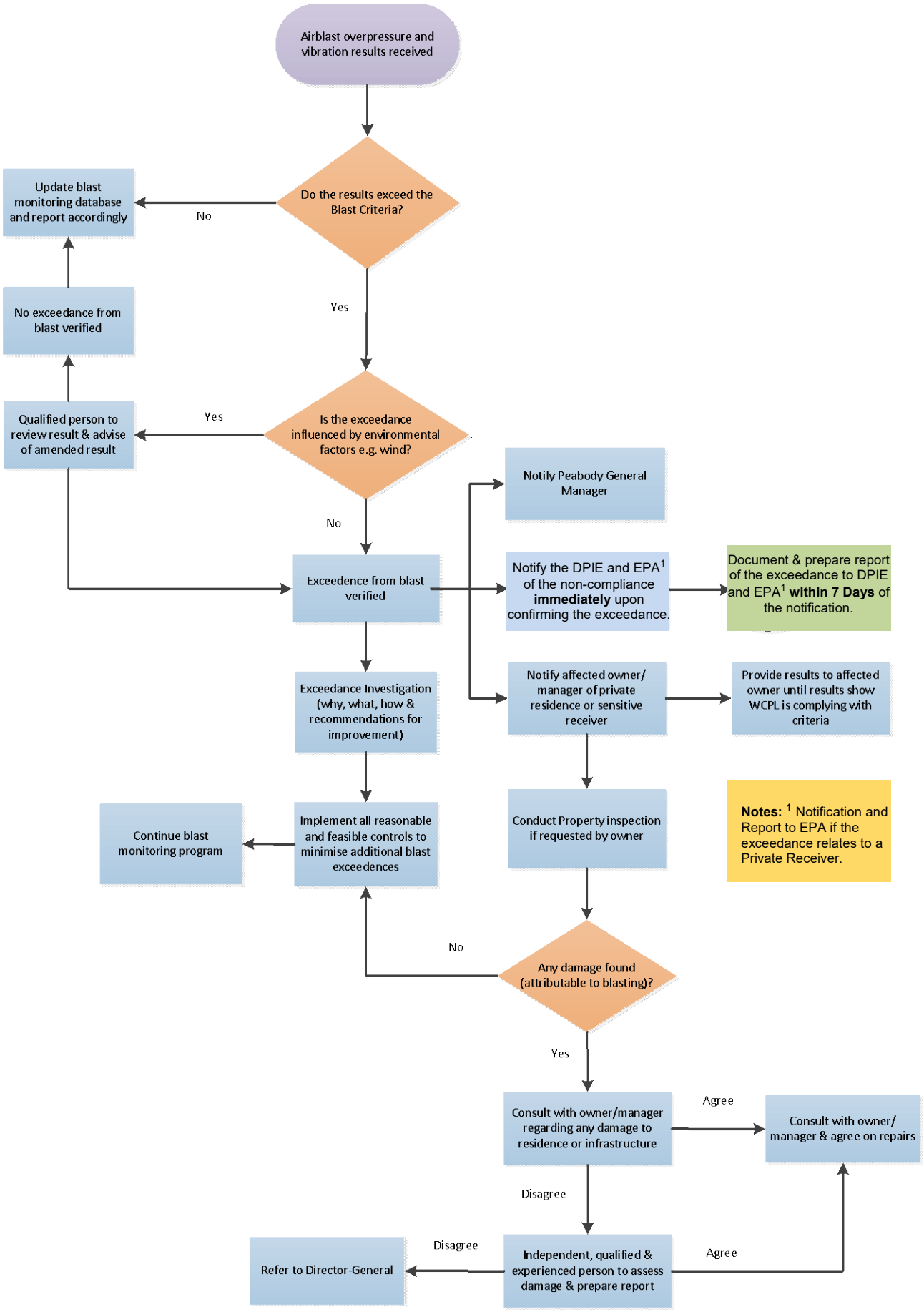


Figure 13: Compliance Review and Evaluation Process

7 Contingency Plan to Manage Unpredicted Impacts

WCPL has been undertaking blasting operations since 2006 and has a good understanding of the impacts of blasting on the environment and community surrounding the Mine. A detailed blast model was developed for the WEP EIS (WCPL 2016).

Based on an upper overburden MIC 3,900 kg, the relevant human comfort and building damage ground vibration and airblast criteria are not predicted to be exceeded at any privately-owned receivers, community facilities or historical heritage sites in Wollar (SLR, 2015).

Blasting controls are implemented to minimise these impacts and monitoring is undertaken to monitor ground vibration and airblast overpressure at Private Receivers and other sensitive locations.

Section 6.3.5 describes the process for evaluating compliance against the Blast Criteria and the management response to be undertaken in the event of an exceedance (**Figure 13**). In the event that unpredicted impacts occur as a result of blasting activities at the Mine WCPL will:

- Review the current blast controls and monitoring, to ensure it is effective and Blast Criteria is being met;
- If the system is effective and Blast Criteria is being met, continue implementation of blast controls and monitoring;
- If the system is not effective and Blast Criteria is being exceeded, undertake reporting in accordance with **Section 9.1**;
- Develop and implement additional blast management or mitigation measures and/or repair damage to structures in consultation with the affected landowners;
- Undertake follow-up blast monitoring to assess the effectiveness of the additional measures; and
- Revise the BMgtP (as necessary) to reflect changes.

In relation to public infrastructure, unless WCPL and the applicable authority agree otherwise, WCPL will:

- Repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by blasting activities; and
- Relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of blasting activities.

Note: This condition does not apply to any damage to roads caused as a result of general road usage.

8 Complaints Response Protocol

WCPL operates a Community hotline (**1300 606 625**) for the purpose of receiving complaints from members of the public in relation to mining activities at the Mine. The hotline number is advertised on the WCPL Website.

WCPL has developed a Complaint Response Protocol to reply to community concerns that relate to blasting and other matters.

Response to a blasting complaint will include:

1. Accurately recording all relevant details regarding the complaint in a Complaints Register, including:
    - The date and time of the complaint;
    - The method by which the complaint was made;
    - Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
    - The nature of the complaint;
    - The action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and;
    - If no action was taken by the licensee, the reasons why no action was taken.
2. Undertaking investigations into the likely cause of the complaint using relevant information including meteorological conditions, mining activities occurring and blast monitoring results at the time of the complaint;
3. Assessing and implementing additional blast control measures, if required; and
4. Monitoring and assessing the effectiveness of the additional controls.

In the event of a complaint where airblast overpressure and ground vibration levels are demonstrated to be below the relevant Blast Criteria, every effort will be made to make the complainant fully aware of the monitoring and reporting procedures used at WCPL.

In the event of a complaint where airblast overpressure and ground vibration levels are demonstrated to be above the Blast Criteria, WCPL will advise the complainant of the exceedance.

Records of all complaints will be kept for at least four years after the complaint was made. Records will be produced to any authorised officer of the EPA who asks to see them.

The Complaints Register will be uploaded to the WCPL website and updated monthly.

9 Reporting

The following external reporting will be undertaken by WCPL in accordance with the conditions of the Development Consent (SSD-6764), EPL 12425 and Mining Leases:

- Exceedance and non-compliance blast incident reporting;
- Annual Review;
- Independent Environmental Audit;
- EPL Annual Return;
- Website updates; and
- DSC Reporting.

A copy of BMgtP will be made available to the WCPL's CCC and MWRC. In addition, a copy will be made available for viewing to members of the public at the Mine and on the WCPL website.

9.1 Exceedance and Non-compliance Blast Incident Reporting

9.1.1 Private Receivers & Public Infrastructure

Where a valid exceedance of the Blast Criteria in **Table 7** is recorded at a Private Receiver, WCPL will notify the DPIE and EPA (**Environment Line 131 555**) of the exceedance immediately upon confirming the exceedance is identified.

Where a valid exceedance of the Blast Criteria in **Table 9** is recorded at public infrastructure, WCPL will notify the DPIE and the relevant owners of the public infrastructure of the exceedance immediately upon confirming the exceedance is identified.

Within seven days of the date of the exceedance, WCPL will provide a detailed report to DPIE (and the EPA if the exceedance relates to a Private Receiver) that:

- Describes the date, time, and nature of the exceedance;
- Identifies the cause (or likely cause) of the exceedance;
- Describes what action has been taken to date; and
- Describes the proposed measures to address the exceedance.

Within two weeks, WCPL will notify any affected landowners of a valid exceedance at their residence.

9.1.2 Tailings Dams

Where a valid exceedance of the Blast Criteria in **Table 8** is recorded at a tailings dam, or if seepage changes significantly, WCPL will notify the DPIE and DSC immediately upon confirming the exceedance. A detailed report will be prepared for the DPIE and DSC as outlined in **Section 9.1.1**.

9.1.3 Aboriginal Heritage Sites & Historical Mine Adit

Where a valid exceedance of the Blast Damage Criteria in **Table 10** and **Table 1**2 is recorded at a heritage site identified in **Table 10** and/or at the Historical Mine Adit, WCPL will notify the DPIE and OEH immediately upon confirming the exceedance. A detailed report will be prepared for the DPIE and OEH as outlined in **Section 9.1.1**.

9.2 Annual Review

At the end of March each year, WCPL will review the environmental performance of the Mine and submit an Annual Review report to the DPIE. This report will:

a) Describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year;
b) Include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the:

- Relevant statutory requirements, limits or performance measures/criteria;
- Monitoring results of previous years; and
- Relevant predictions in the WEP EIS (WCPL, 2016);

c) Identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
d) Identify any trends in the monitoring data over the life of the project;
e) Identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
f) Describe what measures will be implemented over the next year to improve the environmental performance of the project.

A copy of the Annual Review will be made publicly available on the WCPL website (over the last five years).

9.3 Independent Environmental Audit

Within a year of commencing development under (SSD-6764), and every three years thereafter (unless the Secretary directs otherwise) WCPL will commission an Independent Environmental Audit (IEA) of the Mine. This audit will:

a) Be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
b) Include consultation with the relevant agencies;
c) Assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
d) Review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
e) Recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals; and
f) Be conducted and reported to the satisfaction of the Secretary.

Within three months of commissioning this audit, or as otherwise agreed by the Secretary, WCPL will submit a copy of the audit report to the Secretary, together with its response to any recommendation contained in the audit report and a timetable for the implementation of these recommendations as required. WCPL must implement these recommendations, to the satisfaction of the Secretary.

A copy of the audit report (and WCPL's response to any recommendations) will be made publicly available on the WCPL website.

9.4 EPL Reporting

WCPL will prepare and submit an Annual Return comprising a certified Statement of Compliance and a signed Monitoring and Complaints Summary to the EPA at the end of each EPL reporting period.

WCPL will include the results of all blast monitoring required by EPL 12425 as a Blast Monitoring Report with the Annual Return. The Blast Monitoring Report will include the following information relating to each blast carried out within the premises during the reporting period covered by the Annual Return:

a) The date and time of each blast;
b) The location of each blast on the premises;
c) The blast monitoring results (airblast overpressure and ground vibration) and at each blast monitoring location; and
d) An explanation for any missing blast monitoring results.

The Annual Return for the reporting period will be supplied to the EPA by registered post not later than 60 days after the end of each reporting period. WCPL will retain a copy of the Annual Return for a period of at least four years after the Annual Return was due to be supplied to the EPA.

9.5 Website Updates

A comprehensive summary of the blast monitoring results will be made publicly available at WCPL and on its website and will be updated every three months.

WCPL will also ensure that any information relevant to blast management is uploaded to the website[10] (and kept up to date). This includes:

- Current statutory approvals;
- Approved strategies, plans or programs required under Development Consent (SSD-6764);
- A complaints register (updated monthly);
- Minutes of Community Consultative Committee (CCC) meetings;
- The last five Annual Reviews;
- A copy of any IEAs and WCPL's response to any recommendations in any audit; and
- Any other matter required by the Secretary.

9.6 DSC Reporting

WCPL will undertake reporting to the DSC in accordance with Annexure E of the DSC Approval (**Appendix 2**) and reproduced in **Table 16** below**.**

Table 16 DSC Reporting

Frequency of Monitoring	Frequency of Reporting	DSC Approval Condition	Deliverable Description	Due Date
	One Off	Annexure D/17	Monitoring Management Plan to the satisfaction of the DSC	As soon as possible (reviewed annually)
	One Off	Annexure D/14	Vibration monitoring program – DSC to be informed	As soon as possible
	One Off	Annexure D/22.1	Liaison Officer appointed	As soon as possible
	One Off	Annexure D1/3	Seepage monitoring plan	As soon as possible
Half Yearly	6 monthly	Annexure D/23.1	Reports on position of face	30th June and 31st December
Per blast	6 monthly	Annexure D1/2	Reports on inspection of dam	30th June and 31st December
	6 monthly	Annexure D/20	Compliance statement	30th June and 31st December
	6 monthly	Annexure D1/3	Reporting on monitoring seepage	30th June and 31st December
Monthly	6 monthly	Annexure D1/4	Reporting on movement monitoring	30th June and 31st December
	Annually	Annexure D/17	Review of Monitoring Management Plan	By 31st July
	Annually	Annexure D/19	Statistics Report for year ended 30th June	By 31st July
As required		Annexure D/14.4	Notification if ground vibration level exceeds 50mm/s at crest of tailings dam	Immediately
As required		Annexure D1/3.3	Notification if seepage changes significantly	Immediately

[10] https://www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-Mine/Approvals,-Plans-Reports

10 REVIEW

Within three months of the submission of:

a) The Annual Review;
b) A blast incident (exceedance) report;
c) An Independent Environmental Audit;
d) The approval of any modification to the conditions of this consent;
e) A direction of the Secretary; and

WCPL will review, and if necessary revise, this BMgtP to the satisfaction of the Secretary.

WCPL will also review, and if necessary revise, this BMgtP when there are changes to the EPL (relating to noise) and in response to a relevant change in technology, legislation, operations or Pollution Reduction Programs.

Where the review of the BMgtP leads to a revision, then within 4 weeks of the review the revised BMgtP will be submitted to the Secretary for approval, unless otherwise agrees with the Secretary.

10.1 Independent Review

If a Private Receiver considers the project to be exceeding the Blast Criteria in **Table 7**, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land.

If the Secretary is satisfied that an independent review is warranted, then within two months of the Secretary's decision, WCPL will:

a) Commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
    - Consult with the landowner to determine his/her concerns;
    - Conduct monitoring to determine whether the project is complying with the Blast Criteria in **Table 7**; and
    - If WCPL is not complying with the Blast Criteria then:
        - Determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land;
        - Identify the measures that could be implemented to ensure compliance with the relevant Blast Criteria; and
b) Give the Secretary and landowner a copy of the independent review.

11 RESPONSIBILITIES

Table 17 Management Plan Responsibilities

Responsibility	Task	Timing
General Manager	Ensure that adequate resources are available to effectively implement requirements of BMgtP	During budget planning
	Ensure that all persons that have responsibilities under BMgtP are aware of those responsibilities	As required
Environmental and Community Manager	Notify the General Manager, Mining Manager, DPIE and EPA and other stakeholders of any exceedance of the Blast Criteria	Immediately upon confirming a non-compliance
	Ensure that all blast related complaints are responded to in accordance with the Complaints Response Protocol	Following a complaint
	Ensure that all regulatory reporting is undertaken in relation to BMgtP	As required
	Coordinate relevant reviews of BMgtP in accordance with **Section 10.0**	As required
	Initiate response to exceedance of the Blast Criteria in accordance with **Section 6.3.5**	At the earliest opportunity following an exceedance
	Implement contingency plan in the event of unpredicted impacts (**Section 6.4**)	As required
	Commission a suitably qualified, experienced and independent person to undertake property inspections and investigations and prepare relevant reports, if requested by landowners, as per **Sections 4.6** and **4.7**	When requested by the Secretary
	Develop and implement further management and mitigation measures and/or repairs for landowners affected by blast impacts, in consultation with landowners	As required
	Ensuring that all relevant employees and contractors are given adequate training in environmental awareness, legal responsibilities, and blast control methods	Within 3 months of approval of BMgtP, and as required
Environmental Advisor	Communicate blasting information to the Drill and Blast Supervisor for relevant surrounding mining operations	As required
	Assist the Drill and Blast Supervisor with investigations of blasting exceedances, incidents or complaints	Following an exceedance, incident or complaint
	Assist in the management of blast related complaints, with particular emphasis on liaison with external stakeholders	As required
	Ensure monitoring is undertaken in accordance with the Blast Monitoring Program (**Section 6.3**)	As required
	Maintaining the blast monitoring system	As required
	Prepare all statutory reports relating to BMgtP	As required
	Reporting on Continuous Improvement opportunities in the Annual Review	Annually
	Update the WCPL website with a summary of blast monitoring results	Bi-monthly
	Regularly reviewing blast monitoring data to ensure compliance with relevant Blast Criteria	As required
	Ensure all records relating to BMgtP are managed in accordance with the EPL	As required
	Confirm that the blast monitoring network is calibrated, operational and in place prior to blasting (in conjunction with the Drill and Blast Engineer)	Prior to blasting
	Internal and external reporting on the performance of the blast monitoring program and effectiveness of BMgtP	As required
Drill and Blast Supervisor	Determine the type of blast being considered and apply relevant management controls under BMgtP	Prior to blasting

Responsibility	Task	Timing
	Comply with blast hours (**Section 4.4**) and frequency (**Section 4.5**) requirements	As required
	Schedule blasts with consideration to relevant surrounding mining operations to minimise cumulative blasting effects	Prior to blasting
	Ensure the drill pattern is drilled in accordance with the blast design	Prior to blasting
	Ensure that the blast is loaded with the correct quantity and quality of explosive and stemmed in accordance with the blast design	Prior to blasting
	Design and carry out blasts to comply with the requirements of this plan, including the identification of meteorological blasting exclusion windows, where implemented	Prior to blasting
	Assess meteorological conditions prior to blasting to determine whether conditions are appropriate for blasting, in consultation with the Environmental Advisor (i.e. atmospheric inversions, effects of dust and fume etc);	Prior to blasting
	Confirm that the blast monitoring network is calibrated, operational and in place prior to blasting	Prior to blasting
	Advise the Management Secretary of the current blasting schedule, including changes to the schedule	Prior to blasting
	Maintain the public blasting notification signs	As required
	Assist the Environmental Advisor with investigations into blasting exceedances, incidents or complaints	As required
	Maintain a current checklist for the Shotfirer that includes all relevant elements of BMgtP	As required
	Implement the Blast Fume Management Strategy, contained in **Appendix 4.**	For each blast
Drill and Blast Engineer	Seek approval from ARTC or MWRC prior to blasting within 500m of the railway or public road	Prior to blasting
	Communicate proposed blasting times and locations to relevant surrounding mining operations	As required
	Liaise with the Drill and Blast Supervisor and Management Secretary to co-ordinate the implementation and maintenance of the blasting hotline	As required
	Regularly review blast design parameters on the basis of blast monitoring results	As required
	Confirm that the blast monitoring network is calibrated, operational and in place prior to blasting (in conjunction with the Environmental Advisor)	Prior to blasting
	Confirm that all steps for blasting within 500 metres of the Gulgong – Sandy Hollow Railway or 500 metres of Ulan – Wollar Road, as detailed in **Section 5.3.1**, **Section 5.3.2** and **Table 7**, are complied with, including obtaining approvals from ARTC and/or MWRC	Prior to blasting
	Maintain records of blasts initiated and forward monitoring results of Type B blasts to the ARTC as agreed	As required
	Ensure limits on frequency and number of blasts are complied with	At all times
	Advertise in local newspapers the blasting hotline number	At least quarterly
Shotfirers	Notify the Drill and Blast Engineer of any factors that may lead to non-compliance with this Plan	Prior to blasting
	Ensure the pre-blast checklist is strictly complied with	Prior to blasting
	Load and fire blasts in accordance with the design supplied by the Drill and Blast Supervisor	Prior to blasting
	Manage misfires in accordance with relevant legislation and this Plan	During blasting
Drillers	Record drill status, including hole depths, pattern and relevant information, including any environmental issues	Prior to blasting

Responsibility	Task	Timing
	Drill the blast pattern in accordance with the design supplied by the Drill and Blast Supervisor	Prior to blasting
Management Secretary	Maintain the Blasting Hotline in consultation with the Environmental Advisor and the Drill and Blast Supervisor	At all times
	Where relevant, notify private residents of blasting times and any subsequent modifications to blasting times	As required
	Maintain the register of private residents to be notified of blasting times	As required
Open Cut Examiner (OCE)	Implement on-site blast control measures (**Section 5.2**)	As required
DSC Liaison Officer	Liaise with DSC on management of tailings dams and ensure compliance with the requirements of the DSC Approval (**Section 5.4**)	As required and in accordance with the DSC Approval (**Appendix 2**)
	Report Blast Criteria exceedances and significant changes in seepage to the DSC (**Section 9.1.2**)	Immediately
	Undertake monitoring and reporting in accordance with **Section 6.0** and **9.6**	As required and in accordance with the DSC Approval (**Appendix 2**)
All employees and contractors	Comply with the requirements of BMgtP	At all times

12 References

ANZECC 1990, *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration*

Dowding, CH 1985, *Blast Vibration Monitoring and Control*

RTA 2008, *Traffic Control at WorkSites Manual*

SLR 2013, *Wilpinjong Coal Mine Modification Noise and Blasting Impact Assessment*

Standards Australia 2006, *AS 2187.2:2006 Explosives - Storage and Use - Use of Explosives*

WCPL, 2006 *Wilpinjong Coal Project Environmental Impact Statement*

WorkCover NSW 2006, *Code of Practice for Work near Overhead Power Lines*

WCPL 2006, *Wilpinjong Coal Project Environmental Impact Statement*

WCPL 2016, *Wilpinjong Extension Project Environmental Impact Statement*

SLR 2015, Wilpinjong Extension Project Noise and Blasting Assessment

13 Appendices

13.1 Appendix 1 – Blast Management Plan Requirements

Schedule 2 of Development Consent (SSD-6764)

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 2 Condition 1	In addition to meeting the specific performance criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the development.	4.0
Development Consent	Schedule 2 Condition 2	The Applicant must carry out the development: (a) generally in accordance with the EIS and the Wilpinjong Coal Project EIS; and (b) in accordance with the conditions of this consent. *Note: The general layout of the development is shown in Appendix 2.*	2.0
Development Consent	Schedule 2 Condition 3	If there is any inconsistency between documents listed in condition 2(a) above, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.	**Error! Reference source not found.**
Development Consent	Schedule 2 Condition 4	The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any strategies, plans, programs, reviews, reports, audits or correspondence that are submitted in accordance with this consent (including any stages of these documents); b) any reviews, reports or audits commissioned by the Department regarding compliance with this consent; and (c) the implementation of any actions or measures contained in these documents.	**Error! Reference source not found.**.0
Development Consent	Schedule 2 Condition 9	Within 6 months of the commencement of development under this consent, or as otherwise agreed by the Secretary, the Applicant must surrender the existing project approval (MP 05-0021) for the Wilpinjong Coal Project in accordance with Section 8P of the EP&A Regulation. Following the commencement of development under this consent, and prior to the surrender of the project approval (MP 05-0021), the conditions of this consent shall prevail to the extent of any inconsistency with the conditions of MP 05-0021. *Notes:* □• *Any existing management and monitoring plans/strategies/programs/protocols/committees under the existing approval for the Wilpinjong Coal Project will continue to apply until the approval of the comparable plan/strategy/program/protocol/committee under this consent.* □• *This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent should not be understood as implying that works legally constructed under a valid consent can no longer be legally maintained or used.*	2.0

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 2 Condition 12	Unless the Applicant and the applicable authority agree otherwise, the Applicant must: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development. *Note: This condition does not apply to any to damage to roads caused as a result of general road usage.*	7.0
Development Consent	Schedule 2 Condition 13	The Applicant must ensure that all plant and equipment used on site, or to monitor the performance of the development, is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	5.2

Schedule 3 of Development Consent (SSD-6764)

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 3 Condition 22	For the life of the development, the Applicant must ensure that there is a meteorological station operating in the vicinity of the site that: (a) complies with the requirements in *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and (b) is capable of continuous real-time measurement of temperature inversions in accordance with the *NSW Industrial Noise Policy,* unless a suitable alternative is approved by the Secretary following consultation with the EPA.	6.1

Schedule 4 of Development Consent (SSD-6764)

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 4 Condition 1	Within 1 month of the date of this consent, the Applicant must: (a) notify in writing the owners of: • the residences listed in Table 1 of schedule 3 that they have the right to require the Applicant to acquire their land at any stage during the development; • any residence on the land listed in Table 2 of schedule 3 that they have the right to request the Applicant to ask for additional noise mitigation measures to be installed at their residence at any stage during the development; and • any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated; (b) notify the tenants of any mine-owned land of their rights under this consent; and (c) send a copy of the NSW Health fact sheet entitled “Mine Dust and You” (as may be updated from time to time) to the	4.6

Consent/Licence	Condition	Requirement	Section
		owners and/or existing tenants of any land (including mine-owned land) where the predictions in the EIS identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in schedule 3 at any time during the life of the development.	
Development Consent	Schedule 4 Condition 3	As soon as practicable after obtaining monitoring results showing: (a) an exceedance of any relevant criteria in schedule 3, the Applicant must notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria; and (b) an exceedance of the relevant air quality criteria in schedule 3, the Applicant must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including the tenants of any mine-owned land).	6.3.6
Development Consent	Schedule 4 Condition 4	If an owner of privately-owned land considers the development to be exceeding the relevant criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land. If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Applicant must: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to: • consult with the landowner to determine his/her concerns; • conduct monitoring to determine whether the development is complying with the relevant criteria in schedule 3; and • if the development is not complying with these criteria, then identify the measures that could be implemented to ensure compliance with the relevant criteria; and (b) give the Secretary and landowner a copy of the independent review. N*ote: Where the independent review finds that the development is not complying with applicable criteria, the Department may take enforcement action under the EP&A Act to ensure compliance with the consent.*	10.1

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Schedule 5 of Development Consent (SSD-6764)

Consent/Licence	Condition	Requirement	Section
Development Consent	Schedule 5 Condition 2	The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation. Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity: (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur; (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and (c) implement reasonable remediation measures as directed by the Secretary.	5.0, 6.3.5 & 6.3.6
Development Consent	Schedule 5 Condition 4	By the end of March each year, the Applicant must submit a review of the environmental performance of the development for the previous calendar year to the satisfaction of the Secretary. This review must: (a) describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year; (b) include a comprehensive review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against the: • relevant statutory requirements, limits or performance measures/criteria; • monitoring results of previous years; and • relevant predictions in the EIS; (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; (d) identify any trends in the monitoring data over the life of the development; (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the next year to improve the environmental performance of the development. Note: The “Post Approval Requirements for State Significant Developments - Annual Review Guideline 2015, NSW Government, October 2015” (or its latest version) provides a reporting framework to integrate the reporting requirements of the Annual Review required by the Department under the development consent and the Annual Environment Management Report (AEMR) required under the Mining Lease.	9.2
Development Consent	Schedule 5 Condition 5	Within 3 months of: (a) the submission of an annual review under condition 4 above; (b) the submission of an incident report under condition 8 below; (c) the submission of an audit under condition 10 below; and (d) the approval of any modification to the conditions of this consent; or	10.0

Consent/Licence	Condition	Requirement	Section
		(e) a direction of the Secretary under condition 4 of schedule 2; the Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Secretary for approval, unless otherwise agreed with the Secretary. *Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.*	
Development Consent	Schedule 5 Condition 6	To ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development, the Applicant may submit revised strategies, plans or programs required under this consent at any time. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis. The Secretary may approve a revised strategy, plan or program required under this consent, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Applicant may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent. Notes: • *While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times.* • *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.* • *For the avoidance of doubt, existing approved management plans, strategies or monitoring programs for the Wilpinjong Coal Project will continue to apply until the approval of a similar plan, strategy or program under this consent (see condition 9 of schedule 2).*	10.0
Development Consent	Schedule 5 Condition 8	The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	9.1
Development Consent	Schedule 5 Condition 9	The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	9.5
Development Consent	Schedule 5 Condition 10	Within a year of commencing development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:	9.3

Consent/Licence	Condition	Requirement	Section
		(a) be conducted by a suitably qualified lead auditor and suitably qualified, experienced and independent team of experts in any field specified by the Secretary, whose appointment has been endorsed by the Secretary; (b) include consultation with the relevant agencies; (c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals); (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under the abovementioned approvals; and (f) be conducted and reported to the satisfaction of the Secretary. *Note: The "Post Approval Requirements for State Significant Developments - Independent Audit Guideline, NSW Government, October 2015" (or its latest version) provides an audit and reporting framework for the independent audit that will guide compliance with this condition.*	
Development Consent	Schedule 5 Condition 11	Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Applicant must implement these recommendations, to the satisfaction of the Secretary.	9.3
Development Consent	Schedule 5 Condition 11	From the commencement of development under this consent, the Applicant shall: (a) Make copies of the following information publicly available on its website: • the EIS; • current statutory approvals for the development; • approved strategies, plans or programs required under the conditions of this consent; • a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; • a complaints register, which is to be updated monthly; • minutes of CCC meetings; • the last five annual reviews; • any independent environmental audit, and the Applicant's response to the recommendations in any audit; • any other matter required by the Secretary; and (b) keep this information up to date.	9.5

Environmental Protection Licence - EPL 12425

<table>
<tr><th>Consent/Licence</th><th>Condition</th><th>Requirement</th><th>Section</th></tr>
<tr><td>EPL</td><td>P1.1</td><td>The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.
<table>
<tr><th>EPA identification no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Location Description</th></tr>
<tr><td>21</td><td>Meteorological weather monitoring</td><td></td><td>Meteorological weather station(s) indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12</td></tr>
</table></td><td>6.1</td></tr>
<tr><td>EPL</td><td>L6.1</td><td>The overpressure level from blasting operations at the premises must not exceed 115 dB (Lin Peak) at any noise sensitive location for more than five percent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.</td><td>4.1</td></tr>
<tr><td>EPL</td><td>L6.2</td><td>The overpressure level from blasting operations at the premises must not exceed 120 dB (Lin Peak) at any noise sensitive at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.</td><td>4.1</td></tr>
<tr><td>EPL</td><td>L6.3</td><td>Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5 mm/sec at any noise sensitive locations for more than five percent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.</td><td>4.1</td></tr>
<tr><td>EPL</td><td>L6.4</td><td>Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10 mm/sec at any noise sensitive location at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
Note: “Noise sensitive locations” includes buildings used as a residence, hospital, school, child care centre, place of public worship and nursing homes. A noise sensitive location includes the land within 30 metres of the building.</td><td>4.1</td></tr>
<tr><td>EPL</td><td>L6.5</td><td>Blasting operations at the premises may only take place between 9:00am – 5:00pm Monday to Saturday. Blasting outside the hours specified in this condition can only take place with the written approval of the EPA.</td><td>4.4</td></tr>
<tr><td>EPL</td><td>L6.6</td><td>Blasting at the premises is limited to the following:
a) a maximum of 2 blasts per day; and
b) a maximum of 5 blasts per week, on average over a 12 month period.</td><td>4.5</td></tr>
<tr><td>EPL</td><td>M1.2</td><td>All records required to be kept by this licence must be:
a) in a legible form, or in a form that can readily be reduced to a legible form;
b) kept for at least 4 years after the monitoring or event to which they relate took place; and
c) produced in a legible form to any authorised officer of the EPA who asks to see them.</td><td>6.4</td></tr>
<tr><td>EPL</td><td>M1.3</td><td>The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
a) the date(s) on which the sample was taken;
b) the time(s) at which the sample was collected;
c) the point at which the sample was taken; and</td><td>6.4</td></tr>
</table>

<table>
<tr><th>Consent/Licence</th><th>Condition</th><th>Requirement</th><th>Section</th></tr>
<tr><td></td><td></td><td>d) the name of the person who collected the sample.</td><td></td></tr>
<tr><td>EPL</td><td>M4.1</td><td>The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in condition M4.2.</td><td>6.1</td></tr>
<tr><td>EPL</td><td>M4.2</td><td>For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency specified opposite in the other columns.
Point 21
<table>
<tr><th>Parameter</th><th>Unit of Measure</th><th>Frequency</th><th>Averaging Period</th><th>Sampling Method</th></tr>
<tr><td>Air temperature</td><td>Degress celsius</td><td>Continuous</td><td>1 hour</td><td>AM-4</td></tr>
<tr><td>Wind direction</td><td>Degrees</td><td>Continuous</td><td>15 minute</td><td>AM-2 & AM-4</td></tr>
<tr><td>Wind speed</td><td>m/s</td><td>Continuous</td><td>15 minute</td><td>AM-2 & AM-4</td></tr>
<tr><td>Temperature lapse rate</td><td>Degrees</td><td>Continuous</td><td>15 minute</td><td>Part E2 & E4 of the Nsw Industrial Noise Policy</td></tr>
<tr><td>Rainfall</td><td>mm</td><td>Continuous</td><td>24 hour</td><td>AM-4</td></tr>
<tr><td>Relative humidity</td><td>%</td><td>Continuous</td><td>1 hour</td><td>AM-4</td></tr>
</table></td><td>6.1</td></tr>
<tr><td>EPL</td><td>M5.1</td><td>The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.</td><td>8.0</td></tr>
<tr><td>EPL</td><td>M5.2</td><td>The record must include details of the following:
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.</td><td>8.0</td></tr>
<tr><td>EPL</td><td>M5.3</td><td>The record of a complaint must be kept for at least 4 years after the complaint was made.</td><td>8.0</td></tr>
<tr><td>EPL</td><td>M5.4</td><td>The record must be produced to any authorised officer of the EPA who asks to see them.</td><td>8.0</td></tr>
<tr><td>EPL</td><td>M6.1</td><td>The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.</td><td>8.0</td></tr>
</table>

Consent/Licence	Condition	Requirement	Section
EPL	M6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	8.0
EPL	M8.1	To determine compliance with condition(s) L6.1 to L6.4: a) Airblast overpressure and ground vibration levels experienced at the following noise sensitive locations must be measured and recorded for all blasts carried out on the premises; - approximately 50m west of the Wollar Primary School grounds - E 777403 N6416219 (MGA94, Zone 55)	6.0
		b) Instrumentation used to measure and record the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006. Note: A breach of the licence will still occur where airblast overpressure or ground vibration levels from the blasting operations at the premises exceeds the limit specified in conditions L6.1 to L6.4 at any “noise sensitive locations” other than the locations identified in the above condition.	6.3.3
EPL	R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	9.4
EPL	R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	9.4
EPL	R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	9.4
EPL	R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA	9.4
EPL	R1.7	Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	9.4
EPL	R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	9.1
EPL	R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred. Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	9.1

13.2 Appendix 2 - DSC Approval

13.3 Appendix 3 - Blast Management Plan Correspondence

Peabody

NSW GOVERNMENT | Planning, Industry & Environment

Mr Ian Flood
Manager – Project Development and Approvals
Peabody Australia
1434 Ulan-Wollar Road
WILPINJONG NSW 2850

Via email: iflood@peabodyenergy.com

Dear Mr Flood

Wilpinjong Coal Mine (SSD-6764)
Management Plan Review

I refer to your emails dated 27 September 2019 and 17 April 2020 submitting revised management plans for the Wilpinjong Coal Mine (SSD-6764), including the:

- Aboriginal and Cultural Heritage Management Plan (condition 47 of Schedule 3, version 6 dated September 2019);
- Air Quality Management Plan (condition 20 of Schedule 3, version 5 dated September 2019);
- Biodiversity Management Plan (condition 42 of Schedule 3, version 6 dated September 2019);
- Blast Management Plan (condition 14 of Schedule 3, version 6 dated September 2019);
- Environmental Management Strategy (condition 1 of Schedule 5, version 6 dated September 2019);
- Historical Heritage Management Plan (condition 49 of Schedule 3, version 3 dated September 2019); and
- Noise Management Plan (condition 5 of Schedule 3, version 4 dated September 2019).

The Department has reviewed the above plans and is satisfied that they meet the requirements of the relevant conditions of consent. Accordingly, the Secretary has approved these plans.

I also refer to the revised Water Management Plan which was submitted on 17 April 2020. The Department notes that substantial changes have been made to the site water balance component of this plan.

As such, the Department requests that this plan be submitted through the Major Projects portal for review by the Department and relevant agencies.

If you have any questions, please contact Jack Turner on 02 9995 5387 or Jack.Turner@planning.nsw.gov.au

Yours sincerely

19/6/20

Stephen O'Donoghue
Director
Resource Assessments
as nominee of the Secretary

From: Andrew Kearins <Andrew.Kearins@midwestern.nsw.gov.au>
Sent: Tuesday, 11 September 2018 2:50 PM
To: Flood, Ian K. <IFlood@peabodyenergy.com>
Subject: RE: Blasting TCP Wollar Rd

Ian

Please take this email as approval to implement the traffic control plan as supplied to close Wollar Rd when blasting within 500m of the road, but also to carry out required pruning as requested.

Regards

Andrew

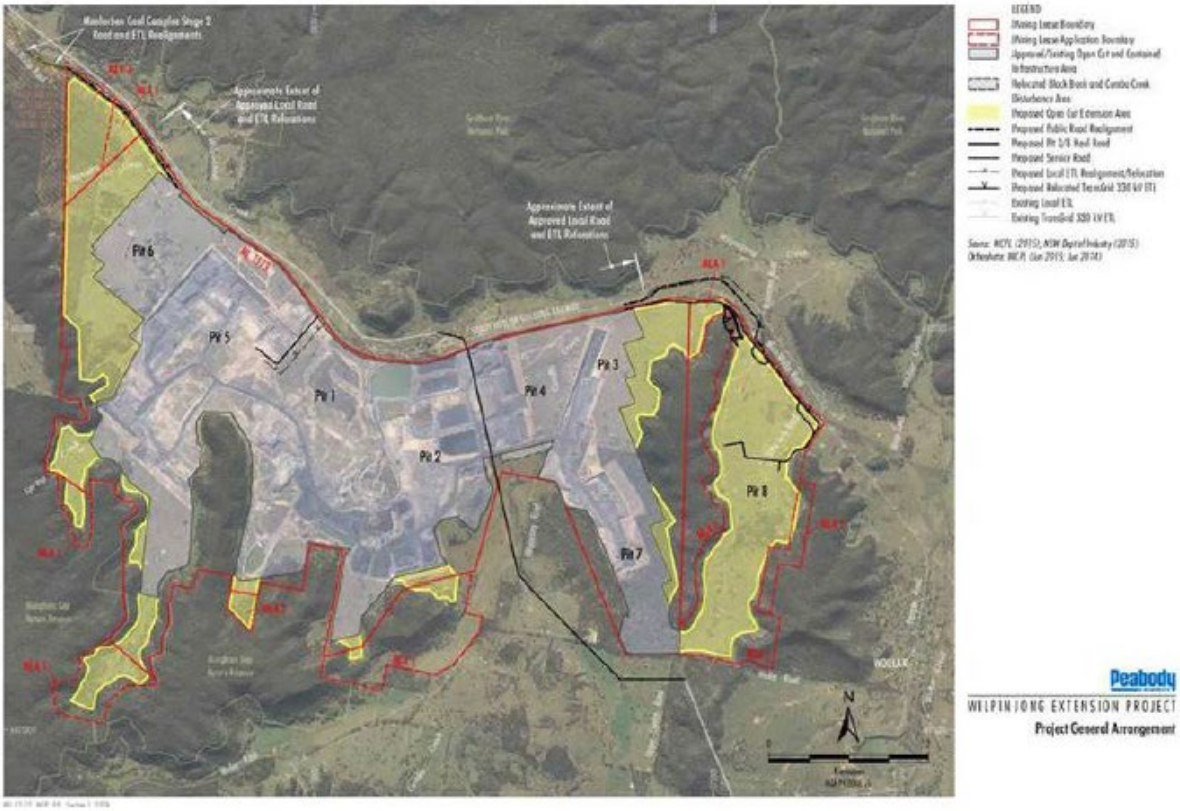
Andrew Kearins | Senior Works Engineer
Mid-Western Regional Council
t 02 6378 2850
f 02 6378 2815 | e andrew.kearins@midwestern.nsw.gov.au
a 86 Market Street | PO Box 156 Mudgee NSW 2850

From: Flood, Ian K. [mailto:IFlood@peabodyenergy.com]
Sent: Tuesday, 21 August 2018 4:16 PM
To: Andrew Kearins <Andrew.Kearins@midwestern.nsw.gov.au>; Sally Mullinger <Sally.Mullinger@midwestern.nsw.gov.au>; Council <Council@midwestern.nsw.gov.au>
Subject: Blasting TCP Wollar Rd
Importance: High

Sally / Andrew,

The current mining activities at Wilpinjong Coal Mine has blasting occurring adjacent to Ulan-Wollar road. If this blasting occurs within 500m proximity of Ulan-Wollar road, the road is temporarily closed under the agreed Traffic Control Plan.

As mining has progressed mining activities have extended closer to Wollar Road, in preparation for blasting activities occurring within 500m of Wollar Road, Wilpinjong submits the attached Traffic Control Plan for councils approval to allow Wilpinjong to temporarily close the appropriate section of Wollar Road when required by the blast exclusion zone. The area highlighted purple in the image below provides an indication of the topic area.



Wilpinjong also notes that along this section of road there is some vegetation that needs to be trimmed to maintain line of sights requirements for the correct implementation and public visibility of the attached TCP. Wilpinjong seeks permission to trim the required vegetation, these activities would be undertaken under the attached TCP also.

The current mining schedule has the first Wollar Road closure occurring as a result of blasting, in early October 2018.

I am happy to meet to progress if required.

Regards

Ian Flood
Manager, Project Development & Approvals
Peabody Australia
1434 Ulan-Wollar Road | Wilpinjong, New South Wales 2850
Locked Bag 2005 | Mudgee, New South Wales 2850
Office Phone: +61 2 6370 2528 | Cell: +61 (0)417 049 493
iflood@peabodyenergy.com

MID-WESTERN REGIONAL COUNCIL
PO Box 156, MUDGEE NSW 2850
86 Market Street, Mudgee | 109 Herbert Street, Gulgong | 77 Louee Street, Rylstone
T 1300 765 002 or 02 6378 2850 | F 02 6378 2815
E council@midwestern.nsw.gov.au

AK | ROA100367

5 September 2018

Nicholas Collings
Manager Technical Services
Peabody Australia Wilpinjoing
1434 Ulan-Wollar Road,
Wilpinjong, NSW 2850

Dear Nicholas

Blasting within close proximity to a Public Road

Council has considered your request to amend Ground Vibration Criteria when blasting close to roads as per your email of the 21/8/18.

Council accepts your proposed amendments as shown in the table below;

Location	Source	Ground vibration (mm/s)	Monitoring Required
Public roads	As agreed with MWRC	200	When blasting within 100m
Road major infrastructure	As agreed with MWRC	100	When blasting within 350m

Regards,

Andrew Kearins
Senior Works Engineer

Peabody

NSW GOVERNMENT | Planning & Environment

Resource Assessments
Contact: Leesa Johnston
Phone: (02) 9274 6164
Email: stephen.shoesmith@planning.nsw.gov.au

Mr Ian Flood
Manager, Project Development and Approvals
Wilpinjong Mine

Via Email to: iflood@peabodyenergy.com

Dear Mr Ian Flood

Wilpinjong Mine (SSD_6764)
Approval – Blast Management Plan

I refer to your email dated 14 September 2018, seeking the Secretary's review and approval of the revised Blast Management Plan for the Wilpinjong Mine (SSD_6764).

The Department has reviewed the revised version of this document and is satisfied that it addresses the requirements of Condition 14, Schedule 3 of Development Consent SSD_6764.

Accordingly, the Secretary approves the revised Blast Management Plan. Please ensure that a copy of the approved plan is placed on your website as soon as possible.

If you require further information, please contact Leesa Johnston on (02) 9274 6164 or by email to leesa.johnston@planning.nsw.gov.au.

Yours sincerely

28/9/18

Steve O'Donoghue
A/Director
Resource and Energy Assessments
as nominee of the Secretary

Peabody

NSW EPA

Your reference :
Our reference : SF18/6996; DOC18/722507
Contact : Mr Allan Adams; (02) 6333 3804

Mr Blair Jackson
General Manager
Wilpinjong Coal Mine
Locked Bag 2005
Mudgee NSW 2850

Attn: Mr Kieren Bennetts

27 September 2018

Dear Mr Jackson

Wilpinjong Coal Mine – Blast Management Plan

I refer to your email dated 14 September 2018 regarding the amended Wilpinjong Coal Mine – Blast Management Plan (September 2018).

The Environment Protection Authority (EPA) is aware that Wilpinjong Coal Mine is required by the Department of Planning & Environment (DPE) to prepare a Blast Management Plan in consultation with the EPA. The EPA encourages the development of Environmental Management Plans/Programs to ensure that proponents have determined how they will meet their statutory obligations and environmental objectives as specified by any Project/Development Approval and/or the conditions of an environment protection licence (EPL).

The EPA has read the amended Blast Management Plan (September 2018) and has no comments. The EPA welcomes being consulted on the preparation of any future management plans, and if deemed necessary may provide comment for your consideration. However, It should be noted that the EPA does not approve or endorse management plans as the role of the EPA is to set conditions/criteria for environment protection and management, and not to be directly involved in the development of strategies to comply with such conditions/criteria.

Should you have any queries regarding this matter, please contact Mr Allan Adams at the Central West (Bathurst) Office of the EPA by telephoning (02) 6333 3804 or email central.west@epa.nsw.gov.au.

Yours sincerely

Darryl Clift
Head Regional Operations Central West
Environment Protection Authority

PO Box 1388 Bathurst NSW 2795
Level 102, 346 Panorama Avenue Bathurst NSW 2795
Tel: (02) 63 333800
ABN 30 841 387 271
www.epa.nsw.gov.au

Peabody

NSW GOVERNMENT | Office of Environment & Heritage

DOC18/689916

Mr Kieren Bennetts
Manager, Environment and Community
Peabody Australia
kbennetts@peabodyenergy.com

Dear Kieren

Wilpinjong Coal - Review of Blast Management Plan

Thank you for the opportunity for the Office of Environment and Heritage (OEH) to comment on the revised Blast Management Plan for the Wilpinjong Coal Mine.

It is noted that the changes to the management plan relate to vibration limits when blasting near public roads and the endorsement of a Traffic Control Plan when blasting within 500m of Wollar Road. As the changes do not impact on any areas within the OEH's responsibility we have no comment to make.

Please note that if subsequent information indicates that any areas within the OEH's responsibility require further investigation, OEH may provide future input.

Should you require additional information please contact David Geering on (02) 6883 5335 or david.geering@environment.nsw.gov.au.

Yours sincerely

PETER CHRISTIE
Director, North West
Conservation and Regional Delivery

21 September 2018

Contact officer: DAVID GEERING
6886 5335

cc: stephen.shoesmith@planning.nsw.gov.au

PO Box 2111 Dubbo NSW 2830
Level 1, 48-52 Wingewarra Street Dubbo NSW 2830
Tel: (02) 6883 5330 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environment.nsw.gov.au

Peabody

NSW GOVERNMENT | Planning & Environment

Contact: Chris Schultz
Phone: 02 4224 9478
Fax: 02 4224 9470
Email: Christopher.Schultz@planning.nsw.gov.au

Mr Kieren Bennetts
Environment and Community Manager
Wilpinjong Coal Mine
Locked Bag 2005
MUDGEE NSW 2850

Dear Mr Bennetts,

Wilpinjong Coal Mine (PA 05_0021)
Approval of Management Plans

I refer to the following Management Plans required under Project Approval 05_0021 (the approval), submitted to the Department for consideration:

- Noise Management Plan – Document No. WI-ENV-MNP-0001 dated May 2014;
- Blast Management Plan - Document No. WI-ENV-MNP-0003 dated May 2014, including the Blast Fume Management Strategy dated May 2014;
- Water Management Plan - Document No. WI-ENV-MNP-0006 dated November 2014, including the Site Water Balance, Erosion and Sediment Control Plan, Surface Water Management and Monitoring Plan, Groundwater Monitoring Program and Surface and Groundwater Response Plan; and
- Spontaneous Combustion Management Plan – Document No. WI-ENV-MNP-0010 dated May 2015.

The Department has reviewed the plans and is satisfied that they generally address the requirements set out in the relevant conditions of the approval. Accordingly the Secretary has approved the management plans.

It is requested that the issues identified in Attachment 1 are addressed either prior to the publishing of the management plans on the website or in the next revision of the document.

A copy of these management plans is to be placed on the website in accordance with Schedule 5, Condition 11 of the approval within one month of the date of this letter.

Should you wish to discuss the above matter, please contact Chris Schultz, Senior Compliance Officer, on 02 4224 9478 or Christopher.Schultz@planning.nsw.gov.au.

Yours sincerely

9/5/16

Katrina O'Reilly
Team Leader Compliance Southern Region
as nominee of the Secretary

Department of Planning & Environment
L2, 84 Crown Street Wollongong NSW 2500 | PO Box 5475 Wollongong NSW 2520 | T 02 4224 9478 | F 02 4224 9470 | www.planning.nsw.gov.au

MID-WESTERN REGIONAL COUNCIL

AK A0420169 (Blasting within 500m road approval of plan.doc) 12th July 2006

Keith Downham
Wilpinjong Coal
Locked Bag 2005
Mudgee NSW 2850

Dear Keith

Blasting within 500m of a public road

I apologise for the delay in reply to your letter of the 26th May 2006.

Council has reviewed the Blasting Management and Monitoring Programme for the Wilpinjong Coal project, and in respect to the section 6.4 Blasting Adjacent to Roads, Council approves of the proposal submitted.

Please contact Councils Operations department at least 24 hours prior to proposed blasting within 500m of a public road for final approval of specific instances and to enable the relevant roads supervisor to be made aware of the blast and subsequent short term road closure.

Should you have any queries in relation to this matter please contact Councils Operations Department on 02 6378 2850.

Yours faithfully

ANDREW KEARINS
MANAGER TECHNICAL SERVICES DEPARTMENT

PO Box 156
MUDGEE NSW 2850

Ph: (02) 6378 2850
Fax: (02) 6378 2815
email: council@mudgee.nsw.gov.au

Wilpinjong Coal Pty. Ltd.
ACN: 104 594 694
Locked Bag 2005
Mudgee NSW 2850
Phone (61) 02 6373 4648
(61) 02 6373 4649
Fax (61) 02 6373 4590

EXCEL COAL LIMITED
PO Box H287 Australia Square
Sydney NSW 1215
Phone (61) 02 9247 2900
Fax (61) 02 9247 2099
www.excelcoal.com.au

26 May 2006

Australian Rail Track Corporation Ltd
Locked Bag 1
Broadmeadow NSW 2292

Attention: Ms. Janette Peterson

Dear Janette,

Subject: Blasting Within 500 metres of the Gulgong – Sandy Hollow Railway Line

Condition 14 in Schedule 3 of the Project Approval (05-0021) for the Wilpinjong Coal Project granted by the Minister for Planning on the 1 February 2006 states:

> *14. Prior to carrying out any blasting within 500 metres of a public road or railway, the Proponent must obtain approval from Council (in respect of public roads) and ARTC (in respect of the Gulgong-Sandy Hollow railway).*

I am writing to seek your approval to blast within 500 metres of a railway.

Wilpinjong Coal Pty Ltd has developed a Blast Management Plan and Monitoring Programme to manage blasting activities at the Wilpinjong Coal Mine. This management plan was approved by Director General of the Department of Planning on the 2nd May 2006. Section 6.3 of this document describes the mitigation measures to be taken by the company when blasting adjacent to railway lines. In approving the management plan the Director General of the Department of Planning considers that these mitigation measures are adequate. I have enclosed a copy of the Blast Management Plan and Monitoring Programme for your review.

Wilpinjong Coal Pty Ltd plans to commence blasting activities adjacent and within 500 metres of the Gulgong – Sandy Hollow Railway Line in June 2006. In order to do this, I am seeking your approval in accordance with the Project Approval.

Should you have any queries regarding this matter please contact me on 6373 4648.

Yours sincerely

WILPINJONG COAL PTY LIMITED

Keith Downham
General Manager

Wilpinjong Coal Pty. Ltd.
ACN: 104 594 694
Locked Bag 2005
Mudgee NSW 2850
Phone (61) 02 6373 4648
(61) 02 6373 4649
Fax (61) 02 6373 4590

EXCEL COAL LIMITED
PO Box H287 Australia Square
Sydney NSW 1215
Phone (61) 02 9247 2900
Fax (61) 02 9247 2099
www.excelcoal.com.au

26 May 2006

Mid Western Regional Council
PO BOX 156
MUDGEE NSW 2850

Attention: Kathy Woolley
Acting General Manager

Dear Kathy,

Subject: Blasting within 500 metres of Public Roads

Condition 14 in Schedule 3 of the Project Approval (05-0021) for the Wilpinjong Coal Project granted by the Minister for Planning on the 1 February 2006 states:

> *14. Prior to carrying out any blasting within 500 metres of a public road or railway, the Proponent must obtain approval from Council (in respect of public roads) and ARTC (in respect of the Gulgong-Sandy Hollow railway).*

I am writing to seek your approval to blast within 500 metres of a public road.

Wilpinjong Coal Pty Limited has developed a Blast Management Plan and Monitoring Programme to manage blasting activities at the Wilpinjong Coal Mine. This management plan was approved by Director General of the Department of Planning on the 2nd May 2006. Section 6.4 of this document describes the mitigation measures to be taken by the company when blasting within 500 metres of public roads. In approving the management plan the Director General of the Department of Planning considers that these mitigation measures are adequate.

A copy of the Blast Management Plan and Monitoring Programme was sent to the Mid Western Regional Council on the 2 May 2006, however I have enclosed an additional copy for your convenience.

Wilpinjong Coal Pty Limited plans to commence blasting activities adjacent and within 500 metres of the Ulan – Wollar Road in June 2006. In order to do this, I am seeking your approval in accordance Condition 14 in Schedule 3 of the Project Approval.

Should you have any queries regarding this matter please contact me on 6373 4648.

Yours sincerely

WILPINJONG COAL PTY LIMITED

Keith Downham
General Manager

13.4 Appendix 4 - Blast Fume Management Strategy