

WILPINJONG COAL BLAST MANAGEMENT PLAN

WI-ENV-MNP-0037 September 2024



Document O	wner			Documer	t Approver			
Environmental Advisor				Environm	Environment and Community Manager			
Version Approval Date			Approver	Name				
10	Sept 2024	1		Kieren Be	nnetts			
General Des	General Description of Changes from Previous Version							
Document No.	Version	Date		ared/ ved By	Distribution	Description of Change		
WI-ENV- MNP-0037	1	16 May 2014	WCPL, Resource	Palaris, 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	WC	PL	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	WC	PL	DP&E & OEH & EPA	Update of figure to reflect current monitoring system and boundaries.		
WI-ENV- MNP-0037	6	September 2019	WC	PL	DPIE & OEH & EPA	Update mgt plan to include revised disturbance footprint boundary in Pit 8		
WI-ENV- MNP-0037	7	August 2020	wc	CPL	DPIE & OEH & EPA	Update to include ML1795 and update figures accordingly. Update reporting protocol and clarify vibration monitoring. Review blast fume management strategy.		
WI-ENV- MNP-0037	8.1	June 2021	wo	PL	DPIE & BCS & EPA	Update included revised disturbance footprint for Pit 6, revised Section 5.2.2 Blast Design and Control Procedures.		
WI-ENV- MNP-0037	9.1	June 2022	wc	PL	DPE & BCS & EPA	Update included revised blast monitoring figure and public road infrastructure definitions to address potential future inconsistencies regarding vibration monitoring. Address DPE feedback.		
WI-ENV- MNP-0037	10	Sept 2024	WC	CPL	DPHI, BCS & EPA	Revision of BMgtP was in consideration of MOD2, MOD4 & all applicable figures displaying recently granted ML1846, EL9399 and update landownership now that property ID959 is now Peabody owned. Additionally blast monitoring added associated with Rocky Hill.		



Contents

1	Intro	duction	6
	1.1	Purpose	9
	1.2	Scope	9
	1.3	Consultation	9
2	Statu	tory Requirements	12
	2.1	Project Approval, DSC and License Requirements	12
	2.2	Specific Development Consent Requirements	12
	2.3	Development Consent General Requirements	14
	2.4	Specific Guidance from Regulatory Agencies	15
	2.5	Relevant Legislation and Policies	15
	2.5.1	Environmental Planning and Assessment Act 1979	16
	2.5.2	Protection of the Environment Operations Act 1997	16
3	Base	line Data	17
	3.1	Blast Impact Assessments	17
	3.2	Historical Monitoring Results	17
	3.3	Blast Compliance Results 2014	20
4	Blast	Compliance Requirements	22
	4.1	Blast Criteria	22
	4.1.1	Ground Vibration Criteria for Public Infrastructure	22
	4.1.2	Ground Vibration Criteria for Archaeological Structures	23
	4.1.3	Ground Vibration and Airblast Overpressure Criteria for Livestock	24
	4.1.4	Ground Vibration Criteria for Historical Mine Adit	25
	4.1.5	Ground Vibration Measuring Equipment	25
	4.2	Dam Safety Committee Approval	26
	4.3	Performance Indicators	26
	4.4	Blast Hours	26
	4.5	Blasting Frequency	26
	4.6	Property Inspections	27
	4.7	Property Investigations	27
5	Blast	Management and Control Measures	28
	5.1	Public Notification	28
	5.2	Blast Management	28
	5.2.1	Blast Protocol	29
	5.2.2	Review of Blast Site Laws	29
	5.2.3	Blast Design and Control Procedures	30
	5.3	Blasting Adjacent to Public Infrastructure (within 500m)	31
	5.3.1	Blasting Adjacent to Railway Lines	31
	5.3.2	Blasting Adjacent to Public Roads	33
	5.4	Blasting Adjacent to Tailings Dams	34

Peabody

	5.5	Eastern Bentwing-Bat Management Strategies	34
	5.6	Cumulative Blast Management	35
	5.7	Rock Shelter Management Strategies	35
6	Blas	t Monitoring Program	38
	6.1	Meteorological Monitoring	38
	6.1.1	Meteorological Assessment	38
	6.2	Blast Monitoring Locations	38
	6.3	Blast Monitoring	43
	6.3.1	Purpose	43
	6.3.2	2 Summary	43
	6.3.3	3 Methodology	44
	6.3.4	Data Collection	44
	6.3.5	5 Evaluation of Compliance	44
	6.3.6	8 Response to Exceedance	44
	6.4	Monitoring Records	44
7	Cont	tingency Plan to Manage Unpredicted Impacts	46
8	Com	plaints Response Protocol	47
9	Rep	orting	48
	9.1	Exceedance and Non-compliance Blast Incident Reporting	48
	9.1.1	Private Receivers & Public Infrastructure	48
	9.1.2	2 Tailings Dams	48
	9.1.3	3 Aboriginal Heritage Sites & Historical Mine Adit	49
	9.2	Annual Review	49
	9.3	Independent Environmental Audit	49
	9.4	EPL Reporting	50
	9.5	Access to Information	50
	9.6	DSC Reporting	51
1() REV	/IEW	52
	10.1	Adaptive Management	52
	10.2	Updating Plans	52
	10.3	Independent Review	53
1′			
12	I RES	PONSIBILITIES	54
14		PONSIBILITIES	
13	2 Defii		57
	2 Defii 3 Refe	nitions	57 58
13	2 Defii 3 Refe	nitions	57 58 59
13	2 Defin 3 Refe 4 Appe	nitions prences endices	57 58 59 59
13	2 Defii 3 Refe 1 Appe 14.1	nitions erences endices Appendix 1 – Blast Management Plan Requirements	57 58 59 59 69
13	2 Defii 3 Refe 4 Appe 14.1 14.2	nitions erences endices Appendix 1 – Blast Management Plan Requirements Appendix 2 – DPHI Approval Pit 6 Development Footprint	57 58 59 59 69 72



Figures

Figure 1-1 Locality Plan	7
Figure 1-2 General Arrangement (MOD 4)	8
Figure 3-1 Historical Monitoring Results – Jim Smith's Property (2006-2013) - Overpressure	17
Figure 3-2 Historical Monitoring Results – Jim Smith's Property (2006-2013) – Vibration	18
Figure 3-3 Historical Monitoring Results – Wollar Public School (2012-2014) – Overpressure	18
Figure 3-4 Historical Monitoring Results – Wollar Public School (2012-2014) – Vibration	19
Figure 3-5 Historical Monitoring Results – Aboriginal Site 72 (2006-2014) – Vibration	19
Figure 3-6 Historical Monitoring Results – Aboriginal Site 152 (2013-2014) – Vibration ⁶	20
Figure 3-7 Historical Monitoring Results – Aboriginal Site 153 (2013-2014) – Vibration ⁶	20
Figure 6-1 Blast Monitoring Locations	40
Figure 6-2 Blast Monitoring Locations – Wollar	41
Figure 6-3 DSC Approved Area	42
Figure 6-4 Compliance Review and Evaluation Process	45

Tables

Table 2-1 WCPL's Current and Historical Statutory Approvals	12
Table 2-2 Development Consent Blasting Requirements	12
Table 2-3 General Management Plan Requirements	15
Table 3-1 Historical Blast Monitoring Sites	17
Table 3-2 Review of Blast Compliance Results 2014	21
Table 4-1 Blast Criteria	22
Table 4-2 DSC Vibration Criteria	22
Table 4-3 Ground Vibration Criteria for Public Infrastructure	23
Table 4-4 Ground Vibration Criteria for Archaeological Sites	24
Table 4-5 Ground Vibration and Airblast Overpressure Criteria for Livestock	25
Table 4-6 Ground Vibration Criteria for Historical Mine Adit	25
Table 5-1 Agreed Arrangements for Blasting adjacent to the ARTC Managed Railway Line	32
Table 6-1 Blast Monitoring Locations	39
Table 6-2 Blast Monitoring Summary	43
Table 9-1 DSC Reporting	51
Table 11-1 Management Plan Responsibilities	54
Table 12-1 Definition of Acronyms and Particular Terms	57



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 1-1**). 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 (Version 10) has been prepared to satisfy the relevant conditions in Development Consent (SSD-6764) as modified. 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.









Figure 1-2 General Arrangement (MOD 4)





** Inclusive of Amendment No.3 (May 2021); MOD2 Amendment (July 2024) and MOD4 Amendment (Sept 20 1000 - 2000 -

Source: WCPL (2024); NSW Spatial Services (2024); EnergyCo (2024) Orthophoto Mosaic: WCPL (July 2024, 2022)

Peabody WILPINJONG COAL MINE Wilpinjong Coal Mine General Arrangement

WIL-22-11A_MP2024_General Arrangement_Rev B 20/11/2024

Uncontrolled when printed



1.1 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 potential impacts from blasting to protect WCPL's staff, employees and contractors, the public, WCPL owned and non-owned infrastructure and private property;
- Describe the blast management and mitigation strategies used to ensure no impacts from blasting occur at identified rock shelter sites associated with Rocky Hill buffer zone;
- Describe the blast management and mitigation strategies used to ensure no impacts from blasting occur at identified rock shelters with moderate to high Aboriginal cultural heritage significance and cause no more than negligible damage at identified rock shelters with low Aboriginal cultural heritage significance, located within the Munghorn Gap Nature Reserve;
- Provide a management plan to minimise disturbance to a roosting site for the Eastern Bentwing-bat²;
- Provide a blast monitoring protocol for evaluating compliance with the Blast Conditions;
- Provide a protocol for managing and reporting any blast emission exceedances or noncompliances;
- 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
- A component plan of WCPL's Environmental Management Strategy (EMS)³.

1.2 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 3**).

This BMgtP also includes the Blast Fume Management Strategy (**Appendix 5**) and an Eastern Bentwing-bat Management Plan (**Section 5.5**).

1.3 Consultation

This BMgtP has been prepared in consultation ongoing with the Department of Planning, Housing and Infrastructure (DPHI), formally known as Department of Planning and Environment (DPE), and NSW Environmental Protection Agency (EPA). Initial consultation with the DPHI and the EPA commenced on 23 May 2017. Copies of correspondence are included in **Appendix 4**.

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's Aboriginal Cultural Heritage Management Plan (ACHMP).

² Mircobat species listed as threatened under the TSCA.

³ Environmental Management Strategy (WI-ENV-MNP-0001) as required by Condition 1, Schedule 5 of SSD-6764



Further consultation with MWRC was undertaken during August and September 2018 of the BMgtP (Version 4), 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**) and (**Appendix 4**).

Consultation with the Biodiversity Conservation and Science Group of NSW Department of Climate Change, Energy, the Environment and Water (BCS), formally known as Office of Environment and Heritage (OEH), has been ongoing, with recent consultation completed in July 2022 (**Appendix 4**).

On the 8 August 2019, WCPL commenced consultation with the DPHI 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 DPHI 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 DPHI.

During May 2021, WCPL sought consultation with the DPHI to request a minor variation to increase the disturbance footprint and open cut boundary of Pit 6, arising from refinement to the detailed design allowing access to additional coal reserves at the south-western boundary of Pit 6. On the 07 June 2021, WCPL received approval from the DPHI the proposed minor changes to the footprint area of Pit 6 is generally in general accordance with the WEP and Project Approval (**Appendix 2**). Noting that minor changes to the disturbance footprint were contemplated following detailed design. Accordingly, WCPL updated all relevant management plans required by SSD-6764 to reflect this change.

On the 23 June 2022, WCPL provided the proposed amendments of the BMgtP to both the MWRC and ARTC, in relation to the clarification of the vibration monitoring requirements for public roads and infrastructure.

Following the 2022 review of the BMgtP it was believed that the footnote definitions for 'Public Road' and 'Public Road Infrastructure' could be misleading (**Table 4-3**). To elaborate, the Ulan-Wollar Road ('Road") runs to the north of the WCPL mine operations boundary. Also running parallel to Ulan-Wollar Road, but further away from the active mine operations boundary is the Gulgong - Sandy Hollow Railway ('Railway').

Along the Road and Railway are various water drainage structures ("Structures"). These Structures comprise a mixture of concrete arch, box, oval (i.e., pipe) shapes and are of varying sizes. As the Road is 'upstream' from the Railway, the Road structures are generally accompanied by downstream Railway Structures.

As there are different vibration monitoring requirements for: (i) 'Public Road' and (ii) 'Public Road Infrastructure' and both (i) and (ii) are upstream of railway culverts there may arise an inconsistence outcome with ground vibration monitoring based on the footnote definitions of each.

On this basis WCPL have amended the footnotes for 'Public Road' and 'Public Road Infrastructure' in **Table 6-1** of the BMgtP to clarify that the first applies only to road surfaces and the latter to all infrastructure (i.e., concrete pipe culverts, and bridges). By making this change Public Road Infrastructure will be consistent with Railway culverts and reflect what is in reality a combination of both. In addition to this change WCPL included a figure that clearly identifies the location of the various relevant Road and Railway culverts that exist along the northern boundary of WCPL.

The Rehabilitation Strategy as required by Condition 61, Schedule 3 of the Development Consent (SSD-6764) was conditionally approved on 6 December 2022 by the DPE, subject to updating the groundwater model and continued consultation with Moolarben Coal Mine (MCM) regarding an integrated final landform. The revised conceptual landform is displayed in Appendix 3 of the EMS.



WCPL were granted approval to modify Development Consent (SSD-6764) to incorporate a temporary on-site accommodation facility and excise four parcels of Crown land from the Development Application area (Modification 2). Modification 2 (MOD 2) was approved by DPHI on the 3 July 2024.

WCPL have been in consultation with its Registered Aboriginal Parties' Consultation Committee (RAPCC) since February 2023 to announce that WCPL would not be mining Rocky Hill (a culturally significant complex of sites located in Pit 8). Key heritage and environmental issues that were raised during consultation included summary of mining operations, exploration, review of WCPL's Aboriginal Cultural Heritage Management Plan (ACHMP), management of Aboriginal heritage including rock shelters and salvage works program.

WCPL have made the decision to now adapt/modify the mine plan for Pit 8, leaving a buffer zone around Rocky Hill. Therefore, this BMgtP has been revised to include specific blast management and mitigation measures to protect the three rock shelter sites associated with Rocky Hill including sites WCP578, WCP579 and WCP580 (Section 5.7).

Modification 4 (MOD 4) of SSD-6764 was sought by WCPL to facilitate the changes required for the Central-West Orana Renewable Energy Zone Transmission Project (SSI-48323210) (the CWO transmission line) (**Figure 1-2**), which was approved on the 26 June 2024 by the Minister of Planning. MOD 4 was approved on the 16 September 2024.



2 Statutory Requirements

This BMgtP has been prepared in accordance with the requirements of:

- Development Consent (SSD-6764) (Section 2.2);
- Environmental Protection Licence No.12425 (EPL 12425) (Appendix 1); and
- The DSC Approval (for tailings dams TD3 and TD6) (Appendix 3).

2.1 Project Approval, DSC and License Requirements

Table 2-1 summarises WCPL's current approvals, as they relate to this BMgtP.

Table 2-1 WCPL's Current and Historical Statutory Approvals

Approval/Licence No.	Description	Date of Approval	Agency
SSD-6764	Development Consent	24 April 2017	DPHI
EPL 12425	EPL	1 March 2023*	EPA

Notes: * Date of last EPL Variation

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 2-2** 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**.

Development Consent (SSD-6764) Condition BLASTING Blast Criteria					BMgtP Section
7.	The Applicant must Table 4: Blasting controls Location		ng on the site does not cause exce Ground vibration (mm/s)	edances of the criteria in Table 4. Allowable exceedance	
1	Residence on	115	5	5% of the total number of blasts over a rolling period of 12 months	
	privately owned land	120	10	0%	Section 4.1
	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%	
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.					
 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. 				Section 4.4	

Peabody

Development Consent (SSD-6764) Condition	BMgtP Section
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. <i>Notes:</i>	
 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. 	Section 4.5
 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. 	
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 	Section 4.6
 identify reasonable and feasible measures that should be implemented to minimise the potential 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 	Section 4.7
(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.	
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; 	Section 5.0
 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	



	Development Consent (SSD-6764) Condition	BMgtP Section
	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	
) carry out regular monitoring to determine whether the development is complying with the relevant onditions of this consent.	
	e Applicant must not undertake blasting on site within 500 metres of any public road or railway, or any ad 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	Section 5.
(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.	Section 5.
Blast N	lanagement Plan	This BMgtl
A	or to carrying out any development under this consent, unless the Secretary agrees otherwise, the plicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. is plan must:	
	be prepared in consultation with the EPA and BCS;	Section 1. & 2.4
(b	describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this consent;	Section 5. & 6.0
(c	include a Eastern Bentwing-bat Management Plan that:	0 <i>1</i> -
	 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; 	Section 5. Section 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; 	Section 5.
	 includes an annual program for reviewing and revising blasting thresholds; and 	Section 9. &10.0
	 describes other measures to minimise impacts consistent with the Biodiversity Management Plan (see condition 42 of this schedule). 	Section 5.
(d	propose and justify any alternative ground vibration limits for public infrastructure in the vicinity of the site (if relevant); and	Section 4.
(e	include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with Council;	Section 5.
(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.	Section 6

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 2-3** presents these requirements and indicates where they are addressed within this BMgtP.



Table 2-3 General Management Pla	an Requirements
----------------------------------	-----------------

		Development Consent (SSD-6764) Condition	BMgtP Section
Ма			
3.		Applicant must ensure that the management plans required under this consent are prepared in rdance 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
	(d)	a program to monitor and report on the:	Section 6.0 &
		 impacts and environmental performance of the development; 	Section 9.0
		 effectiveness of any management measures (see c above); 	
	(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	000101110
		development over time;	Section 9.2 & 9.3
	(g)	a protocol for managing and reporting any:	
		incidents complete	Section 9.1
		 complaints non-compliances with statutory requirements; and 	Section 8.0
			Section 9.1
	(h)	exceedances of the criteria and/or performance criteria; and	Section 9.1
	(h)	a protocol for periodic review of the plan.	
			Section 10.0

2.4 Specific Guidance from Regulatory Agencies

This BMgtP has been prepared in consultation with the EPA and BCS, as required by Condition 14(a), Schedule 3 of Development Consent (SSD-6764). Copies of all relevant consultation with regulatory agencies are provided in **Appendix 4** of this BMgtP.

Ongoing and more recent consultation occurred during the review of BMgtP (Version 8.1) when it was supplied to BCS and EPA on the 28 June 2021. During the preparation of BMgtP (Version 9.1) it was also supplied to BCS and EPA on the 30 June 2022. Both the EPA and BCS had no further comments for either Version 8.1 or Version 9.1 of this BMgtP (**Appendix 4**).

Consultation during the review of the BMgtP (Version 10) was completed during the submission to the EPA and BCS on 30 September 2024, via the NSW Major Projects Portal. The EPA had no further comments to address within the BMgtP. The BCS on the 09/10/2024 had no further comments to address within the BMgtP (**Appendix 4**).

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
- 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 originally 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 1.0** describes the surrender of Project Approval PA05-0021 and current statutory approvals.

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) as modified.

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) as modified, those 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 3-1** provides a summary of historical blast monitoring results for a number of representative sites.

Site Description	Monitoring Period	Figure	EPL Site
Jim Smith's Property	March 2006 – December 2012	Figures 3-1 & 3-2	2011 - 2013
Wollar Public School	December 2012 – January 2014	Figures 3-3 & 3-4	2013 - 2014
Aboriginal Site 72	March 2006 – January 2014	Figure 3-5	N/A
Aboriginal Site 152	March 2013 – January 2014	Figure 3-6	N/A
Aboriginal Site 153	March 2013 – January 2014	Figure 3-7	N/A

Table 3-1 Historical Blast Monitoring Sites



Figure 3-1 Historical Monitoring Results – Jim Smith's Property (2006-2013) - Overpressure





Figure 3-2 Historical Monitoring Results – Jim Smith's Property (2006-2013) – Vibration



Figure 3-3 Historical Monitoring Results - Wollar Public School (2012-2014) - Overpressure





Figure 3-4 Historical Monitoring Results – Wollar Public School (2012-2014) – Vibration



Figure 3-5 Historical Monitoring Results – Aboriginal Site 72 (2006-2014) – Vibration⁴

⁴ Overpressure monitoring does not apply for Heritage Sites





Figure 3-6 Historical Monitoring Results – Aboriginal Site 152 (2013-2014) – Vibration⁶



Figure 3-7 Historical Monitoring Results – Aboriginal Site 153 (2013-2014) – Vibration⁶

3.3 Blast Compliance Results 2014

The WEP NIA (SLR, 2015) includes a review of the monitored blast emission data for 2014 (**Table 3-2**). 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).



Site	Vibrat	ion (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				

Table 3-2 Review of Blast Compliance Results 2014

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 4-1 presents WCPL's blast criteria from the Development Consent (SSD-6764) and EPL 12425.

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Residence on privately		5	5% of the total number of blasts over a rolling period of 12 months
owned land	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%

Table 4-1 Blast Criteria

These criteria do not apply if WCPL has a written agreement with the relevant owner to exceed these criteria and has advised the DPHI in writing of the terms of this agreement (**Section 4.1.1 & Table 4-3**).

Table 4-2 presents WCPL's vibration criteria from the Dam Safety Committee (DSC) Approval.

Table 4-2 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 4-3** and described below.



Table 4-3 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: * Applies to road surfaces only. ^ Includes all infrastructure (i.e.: concrete pipes, culverts and bridges).

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 4** 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 4**).

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 4-4. The location of heritage sites for blast monitoring are provided in Table 4-4 and shown in Figure 6-1. For further information regarding blast monitoring of rock art and rock shelter sites refer to WCPL's Aboriginal Cultural Heritage Management Plan (ACHMP).



Location	Purpose	Source	Ground vibration (mm/s)	Monitoring Required	
Archaeological Sites WCP72, WCP152,	Performance Indicator ⁵	SLR, 2015	80	When blocking within 1 km	
WCP153, within MLs ^{1, 2}	Damage Criteria ⁶	SLR, 2015	250	When blasting within 1 km	
Archaeological Sites WE7 ⁷ , WE10 ⁷ & WCP535	Performance Indicator ⁵	SLR, 2015	80	Representative site when blasting within 1 km	
within the Munghorn Gap Nature Reserve ³	Damage Criteria ⁶	SLR, 2015	250		
Archaeological Sites WE76 & WE77 within the	Performance Indicator ⁵	SLR, 2015	80	Representative site	
Munghorn Gap Nature Reserve ⁴	Damage Criteria ⁶	SLR, 2015	250	when blasting within 1 km	
Archaeological Sites associated with Rocky	Performance Indicator ⁵	SLR, 2015	80		
Hill including WCP578, WCP579 and WCP580 within MLs ⁸	Damage Criteria ⁶	SLR, 2015	250	When blasting within 1km	

Table 4-4 Ground Vibration Criteria for Archaeological Sites

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.
- 7. Blast monitoring geophone units have now been decommissioned at Aboriginal Rock Shelters WE7 and WE10 as the operational requirement for blasting activities in the near vicinity has ceased. If blasting activities recommence within 1km of these sites, ground vibration monitoring will be undertaken at WE7 and WE10 in accordance with this BMgtP.
- 8. WCPL propose signature hole blasting to provide additional information to assist blast design principles for vibration control with additional geophones for ground vibration monitoring (Section 5.2 and Section 6.2).

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 4-5**.

Locations and monitoring requirements will be determined as required, in consultation with affected landholders. Noting that the land within 2 km is either National Parks and Wildlife Service (NPWS), Moolarben Coal Operations (MCO) or Peabody owned land, with the majority of livestock located on Peabody owned land.



Location	Purpose	Source	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Monitoring Required
As agreed with livestock	Performance Indicator	Heggies (2006)	-	200	As agreed with affected landholder
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 6-1**). 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 4-6** presents WCPL's blast impact assessment criteria from the Development Consent (SSD-6764) for ground vibration monitoring of the historical mine adit.

Table 4-6 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)⁵.

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

⁵ 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 3** and shown in **Figure 6-3**.

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 4-1** and the ground vibration criteria in **Table 4-2**, **Table 4-3**, **Table 4-4** and **Table 4-6**;
- No mining induced changes to the baseline condition of monitored rock art/shelter sites;
- No blast fume event rated 3 or higher; and
- Investigations into any livestock impact complaints shows 100% compliance with adopted performance indicators in **Table 4-5**.

Section 7 outlines WCPL's 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 933⁶, Property ID 903⁷ and Property ID 908⁸. The remaining Property ID 959⁹ 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.

⁶ WCPL has a Mine Amenity Agreement (blasting impact assessment criteria does not apply) signed 25 March 2021

⁷ WCPL purchased Property ID 903 on 11 March 2019

⁸ WCPL purchased Property ID 908 on 27 July 2020

⁹ WCPL purchased Property ID 959 on 12 September 2022



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 identified rock shelters WCP578, WCP579 and WCP580 associated within the Rocky Hill buffer zone in Pit 8;
 - 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 rock shelter sites within the Munghorn Gap Nature Reserve (Table 4-4) WCPL will monitor blast impacts to maintain the structural integrity of the sites;
- When blasting within 1km of Aboriginal heritage rock shelter sites associated with Rocky Hill buffer zone (Table 4-4), 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;
- Conduct a Signature Hole Blast Program (or equivalent) to provide additional information to assist with Blast Design principles for vibration control prior to approaching the Rocky Hill buffer zone area;
- 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 Review of Blast Site Laws

In response to an overpressure incident on the 30 November 2020 recorded in Wollar, the blast event and the incident details were reviewed by WCPL's blasting and noise specialist, SLR Consulting Australia Pty Ltd (SLR) on the 11 January 2021.

Based on WCPL's consolidated overpressure site law, SLR concluded from their review the measured level of 123.3dBL on the 30 November 2020 represented approximately 0.2% of a predicted exceedance.

The consolidated blast site law comprises over 1,200 overpressure results, with a correlation coefficient of 60%, such that, 60% of the variation in the overpressure level is dependent of the scaled distance (i.e. Distance/MIC^(1/3)). If course, this leaves 40% of the variation in the overpressure level being a dependent on a combination of the undefined variables, factors or mechanisms such as unanticipated stemming release (SLR, 2021).



As reported to the DPHI and EPA, the most probable cause of the overpressure measured in Wollar was an outburst (compromised confinement) on the eastern end of the blast – from F row, most likely hole F61. This was identified through comprehensive video review, post blast survey and a review of the overpressure waveform as measured in both Wollar and Pit 8 in relation to the blast design and blast timing.

WCPL has reviewed the blasting procedures for the loading of overburden shots. Stemming horizons less than 3.7m will trigger a shot firer/blast controller review prior to stemming to ensure the correct ratio of stemming to product prior to loading of stemming (**Section 5.2.3**).

5.2.3 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 5**.

After completing trials in 2020, WCPL now has incorporated the following as part of its blasting process to prevent/minimise 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. Blastshield is now utilised for all relevant overburden blasts; and
- A trailer mounted blast hole dewatering pump is now in use to pump water from blast holes (when required), allowing for the installation of the Blastshield.

Blast design and control procedures will be implemented, including:

- Stemming horizons less than 3.7m will trigger a shot firer/blast controller review prior to stemming to ensure the correct ratio of stemming to product prior to loading of stemming.
- 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;
- Signature blast analysis is undertaken (as required) for blasts in sensitive areas such as Pit 8;
- Continue to update WCPL's vibration modelling in BlastLogic to assist in predicting vibrations from overburden blasts, particularly blasts within 500m of sensitive locations;
- Notification of blasting times to Private Receivers and maintenance of a free-call Blasting Hotline;
- Improving the quality assurance by using BlastLogic to track the implementation of adequate stemming, delay detonation system, drilling and hole loading to ensure that the required blast design is applied;



- Review actual loading of blast holes, when blasting within vibration sensitive locations, prior to blasting to determine if it is necessary to alter the tie-up to compensate for variances identified;
- 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 into BlastLogic;
- Applicable personnel trained in the using BlastLogic to assist WCPL in updating its predictive vibration model;
- Maintain all plant and equipment in a proper and efficient condition;
- Operate all plant and equipment in a proper and efficient manner;
- Periodic review of blast management practices to evaluate performance and identify responsive action, if required; and
- In addition, specific blast design and control procedures will be implemented subject to the outcomes of the Signature Hole Blast Program (or equivalent review) that will provide additional information to assist with Blast Design principles for vibration control in approaching the Rocky Hill buffer zone area.

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 4**). **Table 5-1** 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 5-1 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 4-3 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 Raily	vay 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 4-3 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 4**). 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. Refer to correspondence between MWRC and WCPL in **Appendix 4**.

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.

The results for WCPL's Public Infrastructure blast monitoring and management strategies will be provided in the Annual Review.



5.4 Blasting Adjacent to Tailings Dams

Blasting is permitted adjacent to tailings dams (**Figure 6-3**), in accordance with the DSC Approval (**Appendix 3**). TD6 is the only active tailings dam at the Mine, as previous tailings dams have now been decommissioned and are in various phases of rehabilitation. 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 at 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**).

The results for WCPL's Tailings Dam blast monitoring and management strategies will be provided in the Annual Review.

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 (**Table 6-1** and **Figure 6-1**);
- 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 adit¹⁰ was originally stabilised in 2019 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.
- 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 UCMPL (copy of correspondence included in **Appendix 4**). 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 UCMPL 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 UCMPL, to ensure it is kept up-todate. In addition to the Protocol, WCPL have entered into data sharing arrangements, and frequently consult with MCO and UCMPL 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 (Table 6-1 and Figure 6-1);
- Damage identified rock shelters with moderate to high Aboriginal cultural heritage significance located within the Munghorn Gap Nature Reserve (**Table 6-1** and **Figure 6-1**);
- Cause more than negligible damage to any identified rock shelters with low Aboriginal cultural heritage significance located within the Munghorn Gap Nature Reserve (Table 6-1 and Figure 6-1); and

¹⁰ Stabilisation of the mine adit entrance in accordance with the BMP was completed during 2019. In 2023 upgrades to the bat adit culvert were undertaken. The much larger 1200mm wide new culvert was designed and installed in consultation with UCMPL's microbat specialists and is considered above the requirement for bats to maximise their ability to leave and return to the Adit (Annual Review, 2023).



• Damage identified rock shelters located within the Rocky Hill buffer zone in Pit 8 (**Table 6-1** and **Figure 6-1**).

WCPL have implemented the following management and mitigation measures, including:

- A baseline assessment of the condition of rock art sites at WCP72, WCP152 and WCP153 has been undertaken within the Munghorn Gap Nature Reserve by a qualified archaeologist prior to blasting within 1km of these sites.
- With exception to WE77 and WE76¹¹, a baseline assessment of the condition of rock shelter site WCP535 has been undertaken within the Munghorn Gap Nature Reserve by a qualified archaeologist prior to blasting within 1km of these sites.
- A baseline assessment of the condition of rock shelter sites at WCP578, WCP579 and WCP580 associated with Rock Hill will be undertaken by a qualified archaeologist and in consultation with RAPCC's.

The qualified archaeologist has assessed the significance of each identified rock art/shelter site using Aboriginal Heritage Information Management System (AHIMS) records, and undertaking a number of site inspections, since 2006. A photographic documentation/baseline data is available for comparison, 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.

 Blasting will be managed (Section 5.2) and monitored (Section 6.2), 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 art/shelter within 7 days to identify if any impacts have occurred and compared against the baseline condition.
- If no impacts have occurred, a review of blast Site Laws 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 rock art/shelters;
 - Notify the RAPCC once the condition report of the rock art/shelters by the qualified archaeologist has been finalised;
 - Report to DPHI and Heritage NSW in accordance with **Section 9.1.3**; and
 - Complete a full review of Blast Site Laws and Blast Design and Control Procedures design for blasting within 1km of heritage sites (Section 5.2.2 and Section 5.2.3).

If blast monitoring records >250 millimetres per second:

- WCPL will report to the DPHI and Heritage NSW immediately upon confirming the exceedance in accordance with **Section 9.1.3**;
- WCPL will inspect the condition of the relevant rock art/shelter within 7 days to identify if any impacts have occurred:
- o Arrange to have a qualified archaeologist inspect the condition of relevant rock art/shelter;

¹¹ Sites WE76 and WE77 were recorded by Kyandel in 2006. Due to a miss-recording of the datum used, it has been difficult verifying the recorded sites. As a result, neither WE76 or WE77 could be re-found during the inspection. The corrected location was inspected, and no rock shelter could be found at the position (Navin Officer Heritage Consultants, March 2018).


- Notify the RAPCC once the condition report of the rock shelters by the qualified archaeologist has been finalised; and
- Complete a full review of Blast Site Laws and Blast Design and Control Procedures design for blasting within 1km of heritage sites (Section 5.2.2 and Section 5.2.3).

If blast monitoring records <80 millimetres per second at an identified rock art/shelter site, an annual inspection by WCPL with a qualified archaeologist and representatives from the RAPCC will be completed to record the condition of either all or a representative sample of the relevant identified rock art/shelter sites, to identify if any perceptible physical impacts (i.e. compared against with baseline condition) has occurred, that may be attributed to blasting.

If visible impacts at an identified rock art/shelter site can be attributed to blasting, WCPL will undertake a review of the ground vibration criteria (**Table 4-4**) 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.

The results for WCPL's Aboriginal heritage blast monitoring and management strategies will be provided in the Annual Review.



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 6-1** and **Figures 6-1** to **6-3**) 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 (ACHMP).

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 6-1**. 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 6-1**).

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 6-1** and **Figures 6-1** to **6-3**.



Table 6-1 Blast Monitoring Locations

Location	Туре	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 ⁷ • WE10 ⁷ • WCP535	Ground Vibration	769407 769305 768910	6416785 6416622 6416557	Rock shelters identified in EIS 2016 with potential to be impacted by ground
Archaeological Sites ⁶ • WE76 • WE77	Ground Vibration	767354 767426	6416087 6416129	vibration
Archaeological Site ⁸ WCP578 WCP579 WCP580 	Ground Vibration	775634	6417685	Rocky Hill as a collective for rock shelter sites WCP578, WCP579, WCP580 identified with potential to be impacted by ground vibration.
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 6-1**.

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 6-1. 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.

7. Blast monitoring geophone units have now been decommissioned at Aboriginal Rock Shelter Sites WE7 and WE10 as the operational requirement for blasting activities has ceased. If blasting activities recommence within 1km of these sites, ground vibration monitoring will be undertaken at WE7 and WE10 in accordance with this BMgtP.

8. WCPL propose signature hole blasting to provide additional information to assist blast design principles for vibration control.



Figure 6-1 Blast Monitoring Locations



WIL-12-11A BlastMP 2024 2018 3/09/2024





Figure 6-2 Blast Monitoring Locations – Wollar



Figure 6-3 DSC Approved Area





6.3 Blast Monitoring

6.3.1 Purpose

Blast monitoring is used for determining compliance against the blast criteria in **Table 4-1** and ground vibration criteria in **Table 4-2**, **Table 4-3**, **Table 4-4** and **Table 4-6**.

6.3.2 Summary

Blast monitoring will be undertaken in accordance with Table 6-2.

Table	6-2	Blast	Monitoring	Summary
-------	-----	-------	------------	---------

Element	Description
Locations	As per Table 6-1 and Figure 6-1 and Figure 6-2
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; The DSC Approval Area at Tailings Dam (TD) TD6. Ground Vibration Every blast (in Pit 8) at the Historical Mine Adit; Monitoring during blast when blasting within: 1 km of Aboriginal Rock Art sites 72, 152 and 153; 1 km of Aboriginal Rock Shelters WE7¹, WE10¹ and WCP535; 1 km of Aboriginal Rock Shelters WE76² and WE77²; and Every blast within 1km (in Pit 8) of the Rocky Hill buffer zone. 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 4-1 and or ground vibration criteria in Table 4-2 , Table 4-3 , Table 4-4 and Table 4-6 .
Exceedance Notification	To DPHI and EPA immediately, upon confirming the exceedance. To DSC immediately (for tailings dams) To the BCS (for Historical Mine Adit) To Heritage NSW (for identified Aboriginal heritage sites) To any directly affected landowners or infrastructure owners
Exceedance Reporting	Detailed report to DPHI and other relevant agencies within 7 days (see Section 9.1.1)

Notes:

¹ Blast monitoring units have now been decommissioned at Aboriginal Rock Shelters WE7 and WE10 as the operational requirement for blasting activities within the vicinity has ceased. If blasting activities recommence with 1km of these sites, ground vibration monitoring will be undertaken at WE7 and WE10 in accordance with this BMgtP.

² Sites WE76 and WE77 were recorded by Kyandel in 2006. Due to a miss-recording of the datum used, it has been difficult verifying the recorded sites. As a result, neither WE76 or WE77 could be re-found during the inspection. The corrected location was inspected, and no rock shelter could be found at the position (Navin Officer Heritage Consultants, March 2018).

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 an incident, the acquisition of privatelyowned land by WCPL, or as a result of community complaints.



In addition to the ground vibration and airblast overpressure monitoring described in **Table 6-2**, WCPL will also undertake blast fume monitoring in accordance with the *Blast Fume Management Strategy*, contained in **Appendix 5**.

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 \pm 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 6-5) that clearly illustrates when WCPL is deemed to be in non-compliance with blast criteria in Table 4-1 and Table 4-2, Table 4-3, Table 4-4 and Table 4-6.

WCPL will be deemed in non-compliance when airblast overpressure and / or ground vibration results exceed the blast criteria in **Table 4-1** and **Table 4-2**, **Table 4-3**, **Table 4-4** and **Table 4-6**.

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 review this BMgtP after the submission of an incident report (**Section 10.0**) and implement the Adaptive Management measures as outlined in **Section 10.1** of this BMgtP.

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 6-4 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 relevant blast criteria and the management response to be undertaken in the event of an exceedance (**Figure 6-5**).

In the event that unpredicted impacts occur as a result of blasting activities at the Mine WCPL will:

- Undertake reporting in accordance with **Section 9.1**;
- Implement Adaptive Management measures as outlined in **Section 10.1**;
 - This may include developing and implementing additional blast management or mitigation measures and/or repair damage to structures in consultation with the affected owners/landowners and the Secretary;
- Undertake follow-up blast monitoring to assess the effectiveness of the additional measures; and
- Review the current Blast Site Laws (**Section 5.2.2**), Blast Design and Control Procedures (**Section 5.2.3**) and Monitoring Program (**Section 6.0**), to ensure it is effective and blast criteria is being met;
- Revise the BMgtP (as necessary) to reflect changes as required by **Section 10.0**.

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:

- 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;
 - o If no action was taken by the licensee, the reasons why no action was taken.
- 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;
- Assessing and implementing additional blast control measures, if required; and
- 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 and DPHI 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;
- Access to Information; 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

As defined by SSD-6764 an incident is a set of circumstances that:

- Causes or threatens to cause material harm to the environment; and/or
- Breaches or exceeds the limits or performance measures/criteria in SSD-6764.

9.1.1 Private Receivers & Public Infrastructure

Where a valid exceedance of the blast criteria in **Table 4-1** is recorded and confirmed at a Private Receiver (**Section 6.3.5**), WCPL must immediately notify the Secretary and any other relevant agencies of any incident upon confirming the exceedance of the blast criteria in **Table 4-1**. WCPL will notify the DPHI via the NSW Major Projects Portal and EPA (Environment Line ph:131 555) of the exceedance immediately.

Where a valid exceedance of the blast criteria in **Table 4-3** is recorded at public infrastructure, WCPL will notify the DPHI 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 incident, WCPL will provide a detailed report to the Secretary¹² and any other relevant agencies¹³ with a detailed report on the incident, and such further reports as may be requested. The report will include:

- 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 4-2** is recorded at a tailings dam, or if seepage changes significantly, WCPL will notify the DPHI and DSC immediately upon confirming the exceedance. A detailed report will be prepared for the DPHI and DSC as outlined in **Section 9.1.1**.

¹² Via NSW Planning Portal

¹³ The EPA if the exceedance relates to a Private Receiver via <u>EPA.Southopsregional@epa.nsw.gov.au</u>



9.1.3 Aboriginal Heritage Sites & Historical Mine Adit

Where a valid exceedance of the blast criteria in **Table 4-4** and **Table 4-6** is recorded at a heritage sites identified in **Table 6-1** and/or at the Historical Mine Adit, WCPL will notify the DPHI, BCS and Heritage NSW immediately upon confirming the exceedance. A detailed report will be prepared for the DPHI, BCS and Heritage NSW as outlined in **Section 9.1.1**.

9.2 Annual Review

By the end of March each year, WCPL 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.

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 must commission and pay the full cost of an Independent Environmental Audit (IEA) of the development. This audit must:

- 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.

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 IEA 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 Access to Information

A comprehensive summary of the blast monitoring results will be made publicly available at WCPL 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 website¹⁴ (and kept up to date).

From the commencement of development under SSD-6764, WCPL 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;

¹⁴ <u>https://www.peabodyenergy.com/Operations/Australia-Mining/New-South-Wales-Mining/Wilpinjong-</u> Mine/Approvals,-Plans-Reports



- Minutes of CCC meetings;
- The last five annual reviews;
- Any independent environmental audit, and WCPL's response to the recommendations in any audit;
- Any other matter required by the Secretary; and
- b) keep this information up to date.

WCPL 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 SSD-6764. Results of WCPL's blast monitoring program will be provided to WCPL's Community Consultation Committee (CCC) during each meeting.

9.6 **DSC** Reporting

WCPL will undertake reporting to the DSC in accordance with Annexure E of the DSC Approval (**Appendix 3**) and reproduced in **Table 9-1** below.

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	30 th June and 31 st December
Per blast	6 monthly	Annexure D1/2	Reports on inspection of dam	30 th June and 31 st December
	6 monthly	Annexure D/20	Compliance statement	30 th June and 31 st December
	6 monthly	Annexure D1/3	Reporting on monitoring seepage	30 th June and 31 st December
Monthly	6 monthly	Annexure D1/4	Reporting on movement monitoring	30 th June and 31 st December
	Annually	Annexure D/17	Review of Monitoring Management Plan	By 31 st July
	Annually	Annexure D/19	Statistics Report for year ended 30th June	By 31 st 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

Table 9-1 DSC Reporting



10 REVIEW

WCPL will undertake a review of the BMgtP within three months of:

- a) The submission of an Annual Review (Section 9.2);
- b) The submission of an incident report (Section 9.1);
- c) The submission of an audit (Section 9.3.); and
- d) The approval of any modification to the conditions of SSD-6764; or
- e) A direction of the Secretary.

WCPL 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.

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

10.1 Adaptive Management

WCPL must assess and manage development-related risks to ensure that there are no exceedances of the blast criteria (**Section 4**). Any exceedance of these blast criteria that constitutes a breach of SSD-6764 may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

- a) Where any exceedance of these blast criteria has occurred, WCPL must, at the earliest opportunity: 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.

10.2 Updating Plans

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, WCPL may submit revised strategies, plans or programs required under SSD-6764 at any time. With the agreement of the Secretary, WCPL may also submit any strategy, plan or program required by SSD-6764 on a staged basis. The Secretary may approve a revised strategy, plan or program required under SSD-6764, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, WCPL may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in SSD-6764.

Notes: While any strategy, plan or program may be submitted on a progressive basis, WCPL 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. 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 SSD-6764 (see condition 9 of schedule 2).



10.3 Independent Review

If an owner of privately-owned land considers the project to be exceeding the blast criteria in **Table 4-1**, 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 4-1**; and
 - If WCPL is not complying with the blast 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.

Note: 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.



11 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, DPHI 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 7)	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

Table 11-1 Management Plan Responsibilities



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 5.	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 5-1 , 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 3)
	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 3)
All employees and contractors	Comply with the requirements of BMgtP	At all times



12 Definitions

Table 12-1 lists the definitions for particular terms used throughout this BMgtP.

Table 12-1	Definition of	Acronyms	and Particular	Terms

Draw in the second state of the second stat	Acronym / Terms	Definition
Binst succession in a discrete area of the mine, as defined by Development Consent (SSD-6764) and (SED-6764). Blast Conditions Means the Blast Criteria from the Blast Conditions and that are summarised in Table 7. BMP Biodiversity Management Plan as required under Condition 42, Schedule 3 of Development Consent (SSD-6764). BMgtP Means this Blast Management Plan as required under Condition 42, Schedule 3 of Development Consent (SSD-6764). Damage Criteria Refers to the ground vibration level that if exceeded, at the particular feature, is a reportable incident (Section 91.3) Development Consent Number SSD-6764 granted by the Minister for Planning under Part 4 of the EP&A Act on 24 April 2017. DPE Department of Planning, Housing and Infrastructure) (formety DPE) DPHE Department of Planning, Housing and Infrastructure) (tornety DPE) DPHE Department of Planning, Housing and Infrastructure) (tornety DPE) DPHE Department of Planning, Housing and Environment EL Mining Act 1982 on 3 March 2008 respectively, EL 6169 was renewed on 14 October 2013 and EL 7081 was renewed on 12 March 2013. 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). Monitoring Site identified in Condition M8.1	BCS	Biodiversity, Conservation and Science (within the Environment and Heritage Group, part of the DPE)
Blast Criteria Means the Blast Criteria from the Blast Conditions and that are summarised in Table 7. 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. 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 Number SSD-6764 granted by the Minister for Planning under Part 4 of the EP&A Act on 24 April 2017. DPE Department of Planning, Housing and Infrastructure) (formerly DPE) Department of Planning, Industry and Environment Exploration Licenses 6169 and 7091 granted by the Minister for Resources and Energy under the Mining Act 1992 on 3 Mach 2008 respectively. EL 6169 was renewed on 14 October 2013 and EL 7091 was renewed on 12 March 2013. EPL Environment Protection Authority. EFL Environment Protection Licence 12425 granted by the EPA under the Protection of the Environment Operations Act 1937 (POEO Act). Mentage NSW Heritage NSW Heritage NSW Heritage NSW Heritage NSW (Within the Environment and Heritage Group, part of the DPE) Microbat Quifcoorbir protection substate process are listed as threatened under the TSCA ¹⁵ . OEH NSW Crition of Environment and Heritage.	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).
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. 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 Number SSD-6764 granted by the Minister for Planning under Part 4 of the EP&A Act on 24 April (SSD-6764) DPE Department of Planning, Industry and Environment Department of Planning, Industry and Environment DPIE Department of Planning, Industry and Environment 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. EPA The NSW Environment Protection Authority. EPL Environment Protection Licence 12425 granted by the Wollar Primary School grounds, as identified in Condition M8.1 of the EPL. Mircobat (<i>Microchiropteran</i> bats) means relatively small mammals with weights ranging from 3 grams up to 40 grams. Nineteen microbat species are listed as threatened under the TSCA ¹⁰ . Mircobat Refers to the ground vibration limit to which blasts will be designed to, at the particular feature floature (Section 4.1.2). Private Receivers Means a Private Receiver or Private Receivers as identified in the Blast Conditions	Blast Conditions	Means the Blast Conditions specified in Development Consent (SSD-6764) and EPL.
BMP (SSD-6764). BMgtP Means this Blast Management Plan prepared by WCPL and as amended from time to time. 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 Number SSD-6764 granted by the Minister for Planning under Part 4 of the EP&A Act on 24 April 2017. DPE Department of Planning and Environment DPH Department of Planning, Industry and Environment ELL Exploration Licenses 6169 and 7091 granted by the Minister for Resources and Energy under the Mining Act 1992 on 3 March 2003 respectively. EL 6169 was renewed on 14 October 2013 and EL 7091 was renewed on 12 March 2013. EPA The NSW Environment Protection Authority. EPL Environment Protection Licence 12425 granted by the EPA under the Protection of the Environment Operations Act 1997 (PCEO Act). EPL Blasting the blast monitoring site located approximately 50 m west of the Wollar Primary School grounds, as identified in Condition M8.1 of the EPL. Heritage NSW Heritage NSW (within the Environment and Heritage Group, part of the DPE) Mircobat (Microchiropteran bats) means relatively small mammals with weights ranging from 3 grams up to 40 grams. Nineteen microbat species are listed as threatened under the TSCA ¹⁰ . OPF NSW Office of Environment and Heritage. P	Blast Criteria	Means the Blast Criteria from the Blast Conditions and that are summarised in Table 7.
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 Number SSD-6764 granted by the Minister for Planning under Part 4 of the EP&A Act on 24 April (SSD-6764) DPE Department of Planning, Indusing and Infrastructure) (formerly DPE) DPIE Department of Planning, Industry and Environment 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. EPA The NSW Environment Protection Licence 12425 granted by the EPA under the <i>Protection of the Environment Operations Act 1997</i> (POEO Act). EPL Blasting Monitoring Site Identified in Condition M4.1 of the EPL. Heritage NSW (within the Environment and Heritage Group, part of the DPE) Mircobat (<i>Microchiropteran</i> 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 ¹⁵ . 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 Receiver or Project Approval Project Ap	BMP	Biodiversity Management Plan as required under Condition 42, Schedule 3 of Development Consent (SSD-6764).
Usamage Unterna (Section 9.1.3) Development Consent Number SSD-6764 granted by the Minister for Planning under Part 4 of the EP&A Act on 24 April 2017. DPE Department of Planning, Housing and Infrastructure) (formerly DPE) DPIE Department of Planning, Industry and Environment EXD06764) Department of Planning, Industry and Environment EL Exploration Licenses 6169 and 7091 granted by the Minister for Resources and Energy under 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. EPA The NSW Environment Protection Authority. EPL Operations Act 1997 (POEO Act). EPL Blasting We the blast monitoring site located approximately 50 m west of the Wollar Primary School grounds, as identified in Condition M8.1 of the EPL. 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 ¹⁶ . 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 Receiver or Private Receivers as identified in the Blast Conditions. Project Approval Project Approval (05-0021) g	BMgtP	Means this Blast Management Plan prepared by WCPL and as amended from time to time.
(SSD-6764) 2017. DPE Department of Planning and Environment DPHI Department of Planning, Housing and Infrastructure) (formerly DPE) DPIE Department of Planning, Industry and Environment 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. 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 the blast monitoring site located approximately 50 m west of the Wollar Primary School grounds, as idonitified in Condition M8.1 of the EPL. 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 ¹⁶ . OEH NSW Office of Environment and Heritage. Performance Refers to the ground vibration limit to which blasts will be designed to, at the particular feature frivate Receiver or Private Receivers as identified in the Blast Conditions. Project Approval Project Approval (05-0021) granted by the Minister for Planning under Part 3A of the Environmental Planning and Assessment Act 1995 (EAAA ct) on 1 February 2006 (cs amended). <td>Damage Criteria</td> <td>Refers to the ground vibration level that if exceeded, at the particular feature, is a reportable incident (Section 9.1.3)</td>	Damage Criteria	Refers to the ground vibration level that if exceeded, at the particular feature, is a reportable incident (Section 9.1.3)
Department of Planning, Housing and Infrastructure) (formerly DPE) DPIE Department of Planning, Industry and Environment 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. EPA The NSW Environment Protection Authority. EFPL Environment Protection Licence 12425 granted by the EPA under the Protection of the Environment Operations Act 1997 (POEO Act). EFPL Blasting the blast monitoring site located approximately 50 m west of the Wollar Primary School grounds, as identified in Condition M8.1 of the EPL. Heritage NSW Heritage NSW (within the Environment and Heritage Group, part of the DPE) 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 ¹⁹ . OEH NSW Office of Environment and Heritage. Performance Refers to the ground vibration limit to which blasts will be designed to, at the particular feature Indicator Project Means a Private Receiver or Private Receivers as identified in the Blast Conditions. 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). TS	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.
DPIE Department of Planning, Industry and Environment 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 2008 respectively. EL 6169 was renewed on 14 October 2013 and EL 7091 was renewed on 12 March 2008 respectively. EL 6169 was renewed on 14 October 2013 and EL 7091 was renewed on 12 March 2008. EPA The NSW Environment Protection Authority. EPL Environment Protection Licence 12425 granted by the EPA under the <i>Protection of the Environment Operations Act 1997</i> (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. Heritage NSW Heritage NSW (within the Environment and Heritage Group, part of the DPE) Mircobat (<i>Microchiropteran</i> 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 ¹⁹ . 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 Receiver or Project Approval Project Approval (05-0021) granted by the Minister for Planning under Part 3A of	DPE	Department of Planning and Environment
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. EPA The NSW Environment Protection Authority. EPL Environment Protection Licence 12425 granted by the EPA under the <i>Protection of the Environment Operations Act 1997</i> (POEO Act). EPL Blasting interview	DPHI	Department of Planning, Housing and Infrastructure) (formerly DPE)
EL 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. 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. Heritage NSW Heritage NSW (within the Environment and Heritage Group, part of the DPE) Microbat (<i>Microchiropteran</i> 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 ¹⁵ . 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 Receiver or Private Receivers as identified in the Blast Conditions. 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). Threatened Species Conservation Act 1995 administered by BCS. 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 WEP EIS (WCPL, 2006) Wolnerable Wilipinjong Coal Project as described in the WCP EIS (WCPL, 2	DPIE	Department of Planning, Industry and Environment
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. Heritage NSW Heritage NSW (within the Environment and Heritage Group, part of the DPE) 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 ¹⁵ . 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). 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 Project as described in the WCP EIS (WCPL,	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.
CPL 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. Heritage NSW Heritage NSW (within the Environment and Heritage Group, part of the DPE) Mircobat (<i>Microchiropteran</i> 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 ¹⁵ . 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 <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act) on 1 February 2006 (as amended). TSCA Threatened Species Conservation Act 1995 administered by BCS. 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 Project as des	EPA	The NSW Environment Protection Authority.
Monitoring Site identified in Condition M8.1 of the EPL. Heritage NSW Heritage NSW (within the Environment and Heritage Group, part of the DPE) 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 ¹⁵ . 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 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 BCS. 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 WCP EIS (WCPL, 2006) WCPL Wilpinjong Coal Project as described in the WCP EIS (WCPL, 2006) WEP The Wilpinjong Coal Project as described in the WCP EIS (WCPL, 2016). WCPL Wilpinjong Coal Project as described in the WCP EIS (WCPL, 2016) WCP	EPL	Environment Protection Licence 12425 granted by the EPA under the <i>Protection of the Environment Operations Act 1997</i> (POEO Act).
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 ¹⁵ . 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 Receiver or Private Receivers as identified in the Blast Conditions. Project 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 BCS. Vulnerable Weans (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 Project as described in the WCP EIS (WCPL, 2006) WEP The Wilpinjong Coal Project Environmental Impact Statement (WCPL, 2016). WEP EIS The Wilpinjong Extension Project Environmental Impact Statement (WCPL, 2016).	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.
Mircobat grams. Nineteen mircobat species are listed as threatened under the TSCA ¹⁵ . 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 BCS. 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. 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, 2016). WEP EIS The Wilpinjong Extension Project Environmental Impact Statement (WCPL, 2016).	Heritage NSW	Heritage NSW (within the Environment and Heritage Group, part of the DPE)
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 BCS. 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 Extension Project as described in the WEP EIS (WCPL, 2006) WEP The Wilpinjong Coal Project Environmental Impact Statement (WCPL, 2016). WEP EIS The Wilpinjong Extension Project Environmental Impact Statement (WCPL, 2016).	Mircobat	
Indicator (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 BCS. 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 Extension Project as described in the WEP EIS (WCPL, 2006) WEP The Wilpinjong Coal Project Environmental Impact Statement (WCPL, 2016). WEP EIS The Wilpinjong Extension Project Environmental Impact Statement (WCPL, 2016).	OEH	NSW Office of Environment and Heritage.
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 BCS. 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 Extension Project as described in the WEP EIS (WCPL, 2006) WEP The Wilpinjong Coal Project Environmental Impact Statement (WCPL, 2006). WEP EIS The Wilpinjong Extension Project Environmental Impact Statement (WCPL, 2016).	Performance Indicator	Refers to the ground vibration limit to which blasts will be designed to, at the particular feature (Section 4.1.2)
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 BCS. 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, 2016).	Private Receiver or Private Receivers	Means a Private Receiver or Private Receivers as identified in the Blast Conditions.
Project Approval Planning and Assessment Act 1979 (ÉP&A Act) on 1 February 2006 (as amended). TSCA Threatened Species Conservation Act 1995 administered by BCS. 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 Coal 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).	Project	The development as described in the WEP EIS (WCPL, 2016).
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).	Project Approval	Project Approval (05-0021) granted by the Minister for Planning under Part 3A of the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act) on 1 February 2006 (as amended).
Vulnerable 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).	TSCA	Threatened Species Conservation Act 1995 administered by BCS.
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).	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.
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).	WCPL	Wilpinjong Coal Pty Limited.
WCP EIS The Wilpinjong Coal Project Environmental Impact Statement (WCPL, 2006). WEP EIS The Wilpinjong Extension Project Environmental Impact Statement (WCPL, 2016).	WCP	The Wilpinjong Coal Project as described in the WCP EIS (WCPL, 2006)
WEP EIS The Wilpinjong Extension Project Environmental Impact Statement (WCPL, 2016).	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)

¹⁵ Source: <u>http://www.environment.nsw.gov.au/resources/nature/landholderNotes07BatRoosts.pdf</u>



13 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

WCPL 2023 Wilpinjong Coal Mine – Onsite Accommodation Facility and Development Application Area Modification (Modification 2) Modification Report

Wilpinjong Coal Mine (SSD-6764) – Central West Orana Renewable Energy Zone Transmission Project Modification (MOD4) – Modification Report



14 Appendices

14.1 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. <i>Note: The general layout of the development is shown in Appendix 2.</i>	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.	2.0
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.	2.0
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. <i>Note: This condition does not apply to any to damage to roads caused as a result of general road usage.</i>	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) & (Refer to Table 2-2 in Section 2.1)

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 <i>Approved Methods for Sampling of Air Pollutants in New South</i> <i>Wales</i> guideline; and (b) is capable of continuous real-time measurement of temperature inversions in accordance with the <i>NSW Industrial Noise</i> <i>Policy</i> , 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. Note: 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



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.	
		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.	
Development Consent	Schedule 5 Condition 6	 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



Consent/Licence	Condition	Requirement				Section	
	P1.1	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.					
		EPA identi-	Type of Monitoring	Type of Discharge	Location Description	6.4	
		fication no.	Point	Point		6.1	
		21	Meteorological weather monitoring		Meteorological weather station(s) indicated on Figure 2 licence variation application additional information received by the EPA 26.11.12		
	L6.1	for more than fiv	e percent of the total number	of blasts over each reporting	exceed 115 dB (Lin Peak) at any noise sensitive location g period. Error margins associated with any monitoring nining whether or not the limit has been exceeded.	4.1	
	L6.2	time. Error marg			exceed 120 dB (Lin Peak) at any noise sensitive at any asure this are not to be taken into account in determining	4.1	
EPL	L6.3	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.					
	L6.4	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.					
	L6.5	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.					
	L6.6		remises is limited to the follow	wing:			
			n of 5 blasts per week, averag	ied over a calender vear		4.5	
				· •	on of 0.5mm/s or less at any residence on privately owned	4.5	
			es or blasts required to ensur				
	L6.7	Offensive blast f	ume must not be emitted from	n the premises. Definition:			
		Offensive blast f		from the detonation of explos	sives at the premises that by reason of their nature, / other circumstances:		
		1.are harmful to	(or likely to be harmful to) a p	person that is outside the pre	emises from which it is emitted, or		
		2.interferes unre es from which it		nterfere unreasonably with)	the comfort or repose of a person who is outside the premis		

Environmental Protection Licence - EPL 12425



Consent/Licence	Condition	Requirement					Section
	M1.2	All records required to be ke a) in a legible form, or in a f b) kept for at least 4 years a c) produced in a legible form	orm that can readily	be reduced to a legit br event to which they	relate took place; and		6.4
	M1.3	this licence: a) the date(s) on which the s b) the time(s) at which the s c) the point at which the sar	 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 d) the name of the person who collected the sample. 				
	M4.1	The meteorological weather condition M4.2.	station must be ma	aintained so as to be o	capable of continuously mo	nitoring the parameters specified in	6.1
EPL	M4.2	parameters specified in Coll the frequency specified opp Point 21 Parameter Air temperature Wind direction Wind speed Sigma theta Rainfall Relative humidity Note: For the purposes of co	Unit of Measure Degrees m/s Degrees mm % onditions M4.1 and uous monitoring sho	e must use the sampli dumns. Frequency Continuous Continuous Continuous Continuous Continuous Continuous M4.2, continuous mo buld only be interrupte	Averaging Period Averaging Period 1 hour 15 minute 15 minute 24 hour 1 hour 1 hour	Sampling Method AM-4 AM-2 & AM-4 AM-2 & AM-4 AM-2 & AM-4 AM-4 AM-2 & AM-4 AM-2 & AM-4 AM-2 & AM-4 AM-4 AM-2 & AM-4 AM-4 </td <td>6.1</td>	6.1
	M4.3	When the meteorological station is unavailable for a period of time greater than 48 hours, the licensee must notify the EPA and state what alternative weather monitoring arrangements will be put in place until the return to service of the meteorological station.					
	M5.1	The licensee must keep a le pollution arising from any ac			e licensee or any employee	or agent of the licensee in relation to	8.0
	M5.2	The record must include details of the following: a) the date and time of the complaint;					8.0



Consent/Licence	Condition	Requirement	Section
		 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. 	
	M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	8.0
	M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.	8.0
	M6.1	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.	8.0
	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
	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	6.0
		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)	
EPL		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
	R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:	
		1. a Statement of Compliance;	
		2. a Monitoring and Complaints Summary.	
		 a Statement of Compliance - Licence Conditions, a Statement of Compliance - Load based Fee, 	0.4
		 a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 	9.4
		 a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and 	
		 a Statement of Compliance - Environmental Management Systems and Practices. 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. 	
	R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	9.4



Consent/Licence	Condition	Requirement	Section
	R1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or 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
	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
		Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period. Note: An application to transfer a licence must be made in the approved form for this purpose.	
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



14.2 Appendix 2 – DPHI Approval Pit 6 Development Footprint





Mr lan Livingstone-Blevins Acting General Manager Peabody Australia

Via email: iflood@peabodyenergy.com

07/06/2021

Dear Mr Livingstone-Blevins

Wilpinjong Coal Mine (SSD-6764) Pit 6 Development Footprint

I refer to your correspondence dated 25 May 2021 and 4 June 2021 regarding a planned minor variation to the disturbance footprint of Pit 6 for the Wilpinjong Coal Mine (SSD 6764).

The Department has considered the information you have provided and notes that refinement to the Pit 6 detailed design would provide for recovery of additional coal and have benefits for post-mining landform establishment by reducing the extent of steep slopes required to tie into existing topography.

In particular, the Department has considered the following impacts of the proposed change:

- Disturbance of approximately 2.5 ha of native vegetation (mapped as Red Ironbark Forest HU886; White Box Woodland (Shrubby) – HU824; and Grey Gum – Narrow-leaved Stringybark Forest - HU843). The Department notes that approximately 6.9 ha of the same vegetation communities that were approved for disturbance have not been disturbed in completed areas of Pit 5 and Pit 6.
- Disturbance of five Aboriginal heritage sites, including three rock shelters with PAD already contemplated for potential incidental disturbance in the approved Aboriginal Cultural Heritage Management Plan (ACHMP), and two open artefact sites. The Department notes that there are seven rock shelter sites that were approved for disturbance however were not disturbed in completed areas of Pit 5 and Pit 6.
- Wilpinjong Coal has advised that Registered Aboriginal Parties have been consulted in relation to the proposed change and that the ACHMP would be updated to reflect the status of these sites.
- There would be minimal change in visual impacts.

The Department agrees that the minor change to the footprint is generally in accordance with the project approval and the project general arrangement identified in the environmental assessment for the extension project, noting that minor changes to the disturbance footprint were contemplated following detailed design.

Consequently, the Secretary agrees that the changes to the Pit 6 open cut boundary and associated disturbance footprint is generally in accordance with the approved project (SSD 6764).

Please ensure that any relevant management plans are reviewed and submitted to the Department for review, prior to any works associated with the proposed changes.

4 Parramatta Square, 12 Darcy Street, Parramatta 2150 | dple.nsw.gov.au | 1



If you wish to discuss the matter further, please contact Gabrielle Allan on 02 9585 6078 or at gabrielle.allan@dpie.nsw.gov.au.

Yours sincerely

Stephen O'Donoghue Director Resource Assessments <u>As nominee of the Planning Secretary</u>



14.3 Appendix 3 - DSC Approval






OUT14/2664

The Manager of Mining Engineering Wilpinjong Coal Pty Ltd Locked Bag 2005 MUDGEE NSW 2850

Dear Sir

Wilpinjong Coal application to continue to open cut mine within the Wilpinjong B Notification Area: Wilpinjong - 1

I refer to a letter received from the New South Wales Dams Safety Committee (DSC) dated 19 December 2013, wherein recommendations have been received pursuant to mining within the Wilpinjong B Notification Area.

The proposal is to continue to open cut mine within the notification area around Wilpinjong's Tailings Dams TD2 & TD6, designated as Wilpinjong – 1 by the NSW Dams Safety Committee (DSC).

In accordance with Annexure "A" - Methods of Operation (Prescribed Dams) Condition 2(i) of the Endorsement Schedule dated 31 January 2008 attached to Mining Lease No 1573 dated 8 February 2006, and by virtue of the delegated authority from the Minister pursuant to the provisions of Section 363(1) of the Mining Act 1992, I hereby conditionally approve of mining in the Wilpinjong Notification Area designated as Wilpinjong - 1, as shown hatched blue on the attached Approved Plan No Drawing No WILP-0023 dated 23 November 2013 and duly endorsed by the DSC on 19 December 2013.

This approval is subject to the observance of the conditions endorsed by the DSC on 19 December 2013 such that:

 Open cut mining within the area outlined and hatched in blue within the Notification Area on the attached plan ("THE APPROVED PLAN"), Drawing No. WILP-0023 and dated 23/11/2013, be approved subject to conditions 1, 2, 10, 11, 12, 13, 14, 17, 19,20, 22, 23 and 24 of the attached Annexure D and subject to conditions 1, 2, 3 and 4 of the attached Annexure D1.

Annexure E is referenced by various conditions in annexure D and D1

A copy of the approved plan No Drawing No. WILP-0023 dated 23 November 2013 and endorsed by the DSC and Director Mine Safety Operations with respect to the approval, is attached for your records.

If you require any further information on this matter please contact Mr Rob Regan, Director, Mine Safety Operations and Chief Inspector on 02 4931 6458.

Yours sincerely

1 Robert Regard

Director, Mine Safety Operations By delegation from the Minister

24 January 2014

PO Box 344, Hunter Region Mail Centre NSW 2310 Tel: 02 4931 6458 Fax: 02 4931 6790 ABN 72 189 919 072 www.resources.nsw.gov.au/safety





New South Wales Government Dams Safety Committee



ANNEXURE "D"

STANDARD MINING CONDITIONS

The conditions are laid out as follows:

- Annexure Dx (D, D1, etc) specify what is required to be done by the applicant, and what the DSC may do following certain triggers;
- Annexure E specifies the frequencies of monitoring and report, and the format of reports. That is, it provides details of the deliverables required by the approval;
- Other Annexures may specify additional details, for example Annexure B describes what should be recorded on geological plans.

In Annexure Dx the section often includes a preamble. These may contain guidance as to how to satisfy a condition, or the background to a condition, but are not conditions in themselves. The conditions look like the following paragraph:

Annexure D Condition 0.0: This is a condition, you must comply with it.

Section I. GENERAL REQUIREMENTS

The following general conditions apply to the WILPINJONG - 1 application.

There is considerable scope for the DSC to modify the frequency of reporting and monitoring, and the format of reporting, during the life of an approval. This is important as it allows the level of monitoring to be increased or decreased according to the risk perceived by the DSC. This section sets out a hierarchy within the approvals:

- 1. Annexure E;
- 2. a specified management plan;
- 3. Annexure D.

That is, any frequency specified in Annexure D is overridden by frequencies specified in a management plan or in Annexure E.

The DSC prefers applicant to prepare monitoring proposals in the first instance. Often these will become endorsed by being included as a reference in Annexure E. Annexure E will be re-issued by the DSC when there is a change to monitoring.

Wilminione - 1

Standard for Controlled Documentation Document Number: WI-ENV-MNP-0037 Version: 10 Dec 2013: Annexure D:Pare



Annexure D Condition 1.1: The:

- Frequency of monitoring;
- · Frequency of reporting; and
- · Format of reporting;

For any condition hereunder will be as stated in Annexure E or, where no statement is provided in Annexure E, as stated in the relevant "Management Plan" as specified in Annexure E, or, where no Plan is specified in Annexure E or where the Plan makes no statement, as specified in the condition hereunder.

- Annexure D Condition 1.2: The Dams Safety Committee ("the DSC") may modify the content of Annexure E, any associated Management Plan, or the frequency of monitoring or reporting or the format of reporting for any condition hereunder from time to time.
- Annexure D Condition 1.3: Where the DSC has modified the conditions as per Condition 1.2 and has advised the liaison officer appointed under Condition 22 in writing those modified conditions replace any conditions hereunder and shall have the same effect as if they were part of the approval.
- Annexure D Condition 1.4: The company shall arrange for DSC staff to inspect the workings from time to time when required by the Committee, and in particular when any significant features are encountered in the workings.

Section II. CORRESPONDENCE WITH THE DSC

Annexure D Condition 2.1: All correspondence with the Committee in regard to this approval shall be clearly tabelled Wilpinjong - 1.

Annexure D Condition 2.2: Reports required under the Wilpinjong - 1 shall be sent to:

> The Executive Engineer N.S.W. Dams Safety Committee Floor 3, Macquarie Tower, 10 Valentine Avenue, Parramatta N.S.W. 2150

> > P.O. Box 3720 Parramatta N.S.W. 2124

Fax: (02) 9842 8071 Phone: (02) 9842 8073

Email: mining@damsafety.nsw.gov.au

Annexure D Condition 2.3: Copies of any reports or plans required to be provided to the Committee shall also be provided to the Senior Inspector of Coal Mines, Lithgow.

Dec 2013: Amesure D Page 2-of 0

Peabody

Section III. NOTIFICATION OF COMMENCEMENT OF MINING

This section does not apply to the Wilpinjong - 1 application

Section IV. INSPECTION OF WORKINGS

This section does not apply to the Wilpinjong - 1 application

Section V. SEAM LEVEL GEOLOGICAL FEATURES

This section does not apply to the Wilpinjong - 1 application

Section VI. SURFACE GEOLOGY/TOPOGRAPHY

This section does not apply to the Wilpinjong - 1 application

Section VII. WATER MONITORING

This section does not apply to the Wilpinjong - 1 application

Section VIII. EMERGENCY WATER CONDITIONS

This section does not apply to the Wilpinjong - 1 application

Section IX. SUBSIDENCE AND STRAIN MONITORING

This section does not apply to the Wilpinjong - 1 application

Section X. PLANS SUPPLIED TO THE DSC

Annexure D Condition 10.1: Several conditions require the company to submit plans to the DSC. Apart from the plans that may be required under condition 23, these plans shall share the same scale and base map to facilitate the comparison and correlation between different factors.

Section XI. VARIATIONS

- Annexure D Condition 11.1: From time to time the company may desire to alter the approved mining within the notification area in a minor way (termed a "minor variation"). Applications for minor variations to approvals shall be made to the Chief Inspector of Coal Mines, who will refer the application to the DSC.
- Annexure D Condition 11.2: The Committee requires all proposed variations, even small variations, be referred to it (via the Chief Inspector) for its consideration. To expedite the approval process where the proposed variation is urgent and very minor, DSC staff will give a decision by phone, fax, or email to the company, and inform the Chief Inspector of their decision. The company fill, then approach the Chief Inspector for formal approval or otherwise, with both parties aware of the Committee's decision. This procedure should only be followed in urgent situations.

Wilpinjong - I

Dec 2013: Annexure D Page 3 of 6

CHAL SEN



Annexure D Condition 11.3: The usual procedure is to submit a written application, with appropriate supporting documentation, to the Chief Inspector of Coal Mines, who will then forward this to the DSC for its consideration. The company should also send a copy of the application to the DSC so that it may begin processing it. This will allow for a quick reply.

Where the variation is sufficiently extensive (as determined by the DSC) the company will be required to submit a full application to mine within the notification area.

Annexure D Condition 11.4: The Chief Inspector of Coal Mines shall not approve any minor variation unless an endorsement by the DSC has been received.

Section XII. COMPLETION OF MONITORING

Annexure D Condition 12.1: Regardless of the status of mining or location of the active face, all monitoring and reporting shall continue as specified until the Committee considers that it is no longer required, or that the frequency of the monitoring can be altered. The company may apply to the Committee for modification to the frequency of monitoring, or for the discontinuance of monitoring.

Section XIII. COMMITTEE'S EMERGENCY POWERS

Annexure D Condition 13.1: The Minister, on notice from the Committee, may at any time or times suspend for a period of time, cancel, alter, omit from or add to this consent or the conditions of this consent.

Annexure D Condition 13.2: Regardless of the content of any management plan, the Committee may require by notice in writing the company to:

- Cease any or all mining at the subject area until such time as the Committee agrees that mining may recommence;
- Undertake investigations as specified by the Committee; and/or
- · Undertake remedial works as specified by the Committee.

Section XIV. VIBRATION MONITORING

Where the Committee considers that a mining application will generate significant ground vibrations, for example as a result of blasting in an open cut, then the Committee may specify a peak particle velocity limit at critical structures. Vibration monitoring will normally be required to ensure that this limit is not exceeded.

Annexure D Condition 14.1: The Company shall ensure that peak particle velocities generated as a result of mining will not exceed 50 mm/s at any point on the Dams. A minimum requirement is that monitoring of blast vibration occurs on the crest of TD2N, TD2S, TD2SS and TD6.

Annexure D Condition 14.2: The Company will develop and implement a program to monitor particle velocities generated by mining at sites on the dam and will inform the DSC of the details of this monitoring program as soon as possible.

Wilpinjong - 1

Dec 2013: Annexure D Page 4 of 6

Char 55



Annexure D Condition 14.3: Written reports on the results of the monitoring outlined in the above condition 14.2 shall be submitted to the DSC at intervals as specified in Annexure E.

<u>Annexure D Condition 14.4;</u> The DSC will be informed immediately if peak particle velocities, as a result of mining at any point on the dams, exceed 50mm/s.

Annexure D Condition 14.5: If peak particle velocities exceed the limits set in the above condition 14.4, then the DSC may require an inspection of the dam by a suitable dams engineer.

SECTION XV REPAIR OF DAMAGE TO PRESCRIBED DAMS

This section does not apply to the Wilpinjong - 1 application

SECTION XVI CONTINGENCY PLANS

This section does not apply to the Wilpinjong - 1 application

SECTION XVII MONITORING MANAGEMENT PLANS

Where several monitoring programs are required under an approval the Committee requires that a Management Plan be developed for these programs. The plan will specify at least:

- What is required to be done and when,
- What is required to be delivered and when, and
- Who is responsible for each task.

In certain circumstances it may be appropriate for the plan to incorporate other aspects, for example appropriate levels of training, the format of reports, or regular feedback from the Committee.

- Annexure D Condition 17.1: The company shall prepare a Management Plan encompassing all of the monitoring programs required by the Committee.
- <u>Annexure D Condition 17.2:</u> The plan required above is to be submitted to the DSC for its approval as soon as possible.
- <u>Annexure D Condition 17.3:</u> The plan required above shall be reviewed by the company at intervals as specified in Annexure E. The review process shall include forwarding a copy of the plan to the DSC with a request for comments.

SECTION XVIII CLOSURE REQUIREMENTS

This section does not apply to the Wilpinjong - 1 application

Dec 2013: Annexure D Page 5 of 6

Wilpinjong - 1



SECTION XIX STATISTICAL REPORTS

Annexure D Condition 19.1: The company shall report in writing to the DSC the total tomnage of coal extracted from the Notification Area, and any other statistics related to the approval at intervals as specified in Annexure E.

SECTION XX COMPLIANCE REPORTS

Where several monitoring programs are required under an approval it is difficult, and time consuming, to check compliance with the conditions. As it is the company's responsibility to maintain compliance with the conditions the Committee believes that the company is the appropriate organisation to undertake the bulk of this role.

Annexure D Condition 20: The company shall submit a statement of its compliance with the required conditions at intervals as specified in Annexure E.

SECTION XXI MONITORING, REPORTING AND EXTRACTION SCHEDULE

This section does not apply to the Wilpinjong - 1 application

SECTION XXII LIAISON OFFICER

Effective coordination and management of the monitoring programs is essential. To this end the Committee believes that a person should be nominated as a "liaison officer". Their responsibilities will include:

- Providing a point of contact for the Committee,
- Ensuring compliance with the monitoring conditions,
- Coordinating the supply of monitoring data to the Committee, and
- Ensuring that the Committee is kept up to date of the progress of mining.
- <u>Annexure D Condition 22.1</u>: The company shall appoint a suitably qualified and experienced person, acceptable to the Committee, as a linison officer for the period when there is active mining in the notification area and for an additional period afterwards as determined by the Committee.

SECTION XXIII REPORTS ON THE LOCATION OF THE FACE

Annexure D Condition 23.1: The company shall provide a plan to the DSC showing the location of any active faces, to the satisfaction of the Committee, 6 monthly or at intervals as specified by the Committee from time to time. These reports are to continue until such time as the Committee agrees that it should cense, regardless of whether there is active mining in the notification area.

SECTION XXIV CESSATION OF THIS APPROVAL

Annexure D Condition 24.1: No mining shall be undertaken in the approved area after 31 December 2018 unless such date is extended by the Committee.

END OF ANNEXURE D

Wilpinjong - I

Bec 2013: Annexure D Page 6 of 6





New South Wales Government Dams Safety Committee



ANNEXURE "D1"

SPECIAL MINING CONDITIONS

Section I. GENERAL REQUIREMENTS

The following general conditions apply to the Wilpinjong - 1 application.

Annexure D Condition 1.1: The:

- Frequency of monitoring;
- · Frequency of reporting; and
- Format of reporting;

For any condition hereunder will be as stated in Annexure E or, where no statement is provided in Annexure E, as stated in the relevant "Management Plan" as specified in Annexure E, or, where no Plan is specified in Annexure E or where the Plan makes no statement, as specified in the condition hereunder.

- <u>Annexure D Condition 1.2</u>: The Dams Safety Committee ("the DSC") may modify the content of Annexure E, any associated Management Plan, or the frequency of monitoring or reporting or the format of reporting for any condition hereunder from time to time.
- Annexure D Condition 1.3: Where the DSC has modified the conditions as per Condition 1.2 and has advised the liaison officer appointed under Condition 22 in writing those modified conditions replace any conditions hereunder and shall have the same effect as if they were part of the approval.

Section II. INSPECTION OF DAMS

Annexure D1 Condition 2.1: The Company shall undertake a safety inspection of the dam, to a standard acceptable to the Committee, after each blast.

Annexure D1 Condition 2.2: The Company shall submit a report on the dam inspection results at intervals and in a format as specified in Annexure E.



Wilpinjong -1

Dec 2013: Annexure D1 Page 1 of 2



Section III. SEEPAGE MONITORING

Annexure D1 Condition 3.1: The Company shall develop a program of seepage monitoring, to a standard acceptable to the Committee, and submit it as soon as possible.

Annexure D1 Condition 3.2: The Company shall submit a report on the scopage results at intervals and in a format as specified in Annexure K.

Annexure D1 Condition 3.3: The Company will advise the Committee immediately if changes in the seepage from the dam are considered to be significant.

Section IV. MOVEMENT MONITORING

Annexure D1 Condition 4.1: The Company shall implement a program of movement monitoring for the crests of embankments TD2N, TD2S, TD2SS and TD6.

Annexure D1 Condition 4.2: The Company shall submit a report on the movement of the embankment at intervals and in a format as specified in Annexure E.

End of Annexure D1



Dec 2013: Annexure D1 Page 2 of 2

Wilpinjong -1

Frequency of Monito Format Statement Table of deliverables	Frequency of Monitoring and Reporting Format Statement Table of deliverables	and Reportin	g Wilpinjong - 1 approval			
Frequency of Monitoring	Frequency of reporting	Condition	Deliverable Description	Due Date	Management Plan	
	One off	21/0 NNV	Monitoring Management Plan to the satisfaction. of the Committee	As soon as possible	Reviewed annually	
	One off	ANN D/14	Vibration monitoring program - DSC to be informed	As soon as possible		
	One off	ANN D/22.1	Liaison officer appointed	As soon as possible		
	One off	ANN D1/3	Seepage monitoring plan	As soon as possible		
Half yearly	6 Monthly	ANN D/ 23.1	Reports on position of the face	30 th June & 31 th December		
Per blast	6 Monthly	ANN D/ 14.3	Reports on results of vibration monitoring	30 th June & 31 st December		
Per blast	6 Monthly	ANN D1/2	Reports on inspection of dam	30 th June & 31 st December		
	6 Monthly	ANN D/ 20	Compliance statement	30 th Junte & 31 th December		WE LAN

<u>Peabody</u>



Peabody







14.4 Appendix 4 - Blast Management Plan Correspondence



Kieren Bennetts Manager Environment & Community Wilpinjong Coal Pty Ltd 1434 Ulan-Wollar Road Wilpinjong, NSW, 2850

29/01/2025

Subject: Wilpinjong Extension Project (SSD-6764) - Blast Management Plan and Blast Fume Management Strategy

Dear Mr Bennetts

I refer to the revised Blast Management Plan and Blast Fume Management Strategy for Wilpinjong Extension Project (SSD-6764).

The Department has carefully reviewed these documents and is satisfied that they meet the requirements of the relevant conditions of consent (SSD-6764).

Accordingly, as nominee of the Planning Secretary, I approve the Blast Management Plan (Version 10, dated September 2024) and Blast Fume Management Strategy (Version 6, dated September 2024) under Schedule 3, Condition 14.

Please ensure you make the documents publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Vince Di Bono on 02 8217 2089.

Yours sincerely

lieb

Gen Lucas Team Leader Resource Assessments

As nominee of the Planning Secretary



Department of Climate Change, Energy, the Environment and Water

Our ref: DOC24/824392-1 Your ref: SSD-6764-PA-107

Kieren Bennetts Wilpinjong Coal Pty Ltd Email: kbennetts@peabodyenergy.com

Dear Kieren,

Post Approval Consultation - Wilpinjong Coal revised Environmental Management Plans

Thank you for your request via the NSW Planning Portal dated 30 September 2024 to the Biodiversity, Conservation and Science Group (BCS) of the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) inviting comments on the Wilpinjong Coal Mine – revised Environmental Management Plans (EMPs). BCS has reviewed the revised amendments to the Wilpinjong Coal Blast Management Plan (BMgtP), Blast Fume Management Strategy (BFMS) and Biodiversity Management Plan (BMP).

As per your engagement notes, we understand that Wilpinjong Coal Pty Ltd was granted an extension in time to complete a review of their EMPs following the 2023 Annual Review to allow EMPs to be revised in accordance with development consent SSD-6764 (as modified). As such, our review extended only to the aspects of the revised versions of the previously approved abovementioned EMPs.

BCS understands that the EMPs have been updated to include the following key aspects:

- Figures updated to display the recently granted ML1846 and EL9399
- Land ownership reflects that property ID959 is now owned by Peabody
- BMP revised to incorporated changes to the monitoring program, 3 Year Schedule in Appendix 6 and the figure displaying monitoring locations
- The requirement to manage BOAs has been removed now that they have been transferred to NPWS

We have no comments on the revised on the revised BMgtP or BFMS. Our comments and recommendations on the BMP are provided in Attachment A. If you have any questions about this advice, please do not hesitate to contact Alex Christie, Senior Conservation Planning Officer, via alex.christie@environment.nsw.gov.au or (02) 8229 2916.

Yours sincerely

Calvin Houlison Senior Team Leader Planning North West Biodiversity, Conservation and Science 9 October 2024

Attachment A – BCS's Recommendations

rog.nw@environment.nsw.gov.au| environment.nsw.gov.au |1



Department of Planning and Environment



Ian Flood Manager Project Development and Approvals Wilpinjong Coal Pty Ltd 1434 Ulan-Wollar Road Wilpinjong, NSW 2850

17/12/2022

Subject: Wilpinjong Coal 2 - Blast Management Plan

Dear Mr. Flood

Thank you for submitting the Blast Management Plan in accordance with Condition 14, Schedule 3 of the consent for the Wilpinjong Coal 2 (SSD-6764-PA-60). I also acknowledge your response to the Department's review comments and request for additional information.

I note the Blast Management Plan was revised to include recommendations from the Independent Environment Audit (2021) and contains the information required by the conditions of approval.

Accordingly, as nominee of the Planning Secretary, I approve the Blast Management Plan (Rev 9.1, June 2022).

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Charissa Pillay on 02 99955944.

Yours sincerely

Stephen O'Donoghue Director Resource Assessments As nominee of the Planning Secretary

www.dpie.nsw.gov.au

1



Department of Planning and Environment



Our ref: DOC22/592264 Your ref: SSD-6764

Kieren Bennetts Environment and Community Manager Wilpinjong Coal Pty Ltd

kbennetts@peabodyenergy.com

Dear Kieren,

Post Approval Consultation – Wilpinjong Coal 2 Blast Management Plan and Aboriginal Cultural Heritage Management Plan

Thank you for your referral through the Major Projects Portal dated 30 June 2022 to the Biodiversity, Conservation and Science Directorate (BCS) of the Department of Planning and Environment inviting comments on the revised Blast Management Plan and Aboriginal Cultural Heritage Management Plan.

As the two plans are not relate to matters pertaining to biodiversity and the specific areas of interest to BCS, we have no comments on the revised management plans.

If you require any further information regarding this matter, please contact me via samantha.wynn@environment.nsw.gov.au or (02) 6883 5365.

Yours sincerely

Samantha hlynn

Samantha Wynn Senior Team Leader Planning North West Biodiversity, Conservation and Science Directorate

12 July 2022





DOC22/553069-4

Mr Kieren Bennetts Environmental Manager

Via e-mail: kbennetts@peabodyenergy.com

12 July 2022

Dear Mr Bennetts

VARIOUS MANAGEMENT PLANS - SSD 6764 Wilpinjong Coal Pty Ltd – EPL 12425

I refer to your requests, received via the Department of Planning and Environment's (DP&E) Major Projects Portal for the Environment Protection Authority (EPA) to comment on various Management Plan (MP's) prepared in accordance with condition 5(a) of Development Consent SSD-6764 for Wilpinjong Coal Pty Ltd (WCPL).

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.

Please note that it is not the EPA's role to endorse these plans, given the EPA sets conditions/criteria for environmental protection and management and therefore cannot be directly involved in the development of strategies to comply with such conditions/criteria.

However, in this instance, the EPA has reviewed the following plans and provides some comments below:

- WI-ENV-MNP-0011 Noise Management Plan (June 2022, Version. 7)
- WI-ENV-MNP-006 Water Management Plan (June 2022, Version. 8)
- WI-ENV-MNP-0041 Groundwater Management Plan (June 2022, Version. 6)
- WI-ENV-MNP-0040 Surface water Management Plan (June 2022, Version. 6)
- WI-ENV-MNP-0038 Site Water Balance (June 2022, Version. 6)
- WI-ENV-MNP-0004 Air Quality Management Plan (June 2022, Version. 8)
- WI-ENV-MNP-0037- Blast Management Plan (June 2022, Version. 9)
- Blast Fume Management Strategy (June 2022, Version. 6)

As a management tool, such plans should assist WCPL in meeting its commitment to statutory compliance and wider environmental management and where appropriate should be integrated with other operational or management plans. The EPA recommends that such plans be audited to an industry standard or certified to the ISO 14001 standard (if applicable) as part of any overall environmental management system.

Australia

Phone 131 555	TTY 133 677	Locked Bag 5022	4 Parramatta Square,	info@epa.nsw.gov.au
Phone +61 2 6333 3800	ABN 43 692 285 758	Parramatta NSW 2124	12 Darcy Street,	www.epa.nsw.gov.au
		Australia	Parramatta NSW 2150	



Page 2

The EPA notes in the management plans sections referencing the "EPL Reporting" that the Annual Review for the reporting period will be supplied to the EPA by registered post no later than 60 days after the end of each reporting period. WCPL is reminded of EPL condition R1.5 for Annual Return to be submitted via eConnect <u>https://www.epa.nsw.gov.au/licensing-and-regulation/licensing/econnect-epa</u>.

Regarding the Ground Water Management Plan, it is noted that WCPL were progressing recommendations proposed by SLR Consulting from the 2021 Annual Review and that upon completion of these various recommendations, the GWMP will be updated and resubmitted for approval accordingly.

The EPA has no further comments on the management plans provided and does not propose to make comment on any revision of the Groundwater Management Plan.

If you have any specific questions regarding this matter, please contact Mrs Samantha Hayes on (02) 6333 3806 or via e-mail at EPA.Southopsregional@epa.nsw.gov.au. For general enquiries to the EPA, please call (02) 9995 5000 or e-mail <u>info@epa.nsw.gov.au</u>

Yours sincerely

SHERIDAN LEDGER A/Manager Regulatory Operations Regional South





Mr Ian Flood Manager Project Development and Approvals Wilpinjong Coal Pty Ltd 1434 Ulan-Wollar Road Wilpinjong New South Wales 2850

13/08/2021

Dear Mr Flood

Wilpinjong Coal 2 - (SSD-6764) Blast Management Plan

I refer to the revised Blast Management Plan which was submitted in accordance with Condition 14 of Schedule 3 of the condition of consent for the Blast Management Plan (SSD-6764-PA-44).

The Department has carefully reviewed the document and is satisfied that it generally meets the requirement.

Accordingly, the Secretary has approved the revised Blast Management Plan (Revision 8.1, dated June 2021). Please ensure that the approved plan is placed on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Charissa Pillay on 02 99955944.

Yours sincerely

Stephen O'Donoghue Director Resource Assessments <u>As nominee of the Secretary</u>

320 Fitt Street Sydney 2000 | GPO Box 39 Sydney 2001 | dpie.nsw .gov.au | 1





DOC21/545167

Mr Kieren Bennetts

Wilpinjong Coal Mine

Via E-mail: kbennetts@peabody.energy.com

12 July 2021

Dear Mr Bennetts

MANAGEMENT PLANS Wilpinjong Coal Mine Extension

I refer to the miscellaneous plans, prepared for the Wilpinjong Coal Mine Extension SSD-6784-PA-32, PAE 23174557, 23178027 prepared to satisfy the conditions of State Significant Development approval number 7016 (SSD 6784), and provided to the NSW Environment Protection Authority (EPA) for consultation.

The EPA encourages the development of environmental management plans to ensure that proponents have determined how they will meet their statutory obligations and environmental objectives as specified by any project approval and/or the conditions of an environment protection licence

Please note that it is not the EPA's role to endorse these reports and plans given the EPA sets conditions and criteria for environmental protection and management and therefore cannot be directly involved in the development of strategies to comply with such conditions/criteria. The EPA therefore has no comments on the management plans provided.

If you have any questions regarding this matter, please contact Regional South (Bathurst) Office of the EPA on 6333 3800 or via e-mail at EPA.Southopsregional@epa.nsw.gov.au.

Yours sincerely

Soda Jues

Dr Sandie Jones Manager- Regional South Operations Regulatory Operations Regional

Phone 131 555 Phone +61 2 6333 3800 ABN 43 692 285 758

TTY 133 677

PO Box 1388 Bathurst NSW 2795 Australia

L102.346 Panorama Avenue Bathurst NSW 2795 Australia

info@epa.nsw.gov.au www.epa.nsw.gov.au



Mon 12/07/2021 12:16 PM

no-reply@majorprojects.planning.nsw.gov.au

Wilpinjong Coal Mine Extension 20200625_Letter DPIE_EMP Review_June 2021 - Response from Biodiversity and Conservation Division

Expires Never

To 🛛 📀 Bennetts, Kieren

Ν

Retention Policy ENV-10-01 Environmental Permitting IND (Never)

 $igftom{1}$ If there are problems with how this message is displayed, click here to view it in a web browser.

Biodiversity and Conservation Division has responded to your request for advice in relation to the Wilpinjong Coal Mine Extension 20200625_Letter DPIE_EMP Review_June 2021. The response is below and/or attached. Record of this consultation has been automatically saved to the portal.

When you are ready, login to your profile to submit the final document to the Department.

Public Authority Response Dear Kieren,

Thank you for the opportunity to comment on the revised Blast management Plan for the Wilpinjong Coal Mine

As the changes do not impact any areas within BCSs responsibility we have no specific comment to make.

Please note that if subsequent information indicates that any areas within BCSs responsibility require further investigation, BCS may provide further input.

Should you require additional information please contact Ben Ellis on (02) 82751838 or ben.ellis@environment@nsw.gov.au.

Kind Regards,

Ben Ellis

To sign in to your account click here or visit the Major Projects Website. Please do not reply to this email.

Kind regards

The Department of Planning, Industry and Environment



Subscribe to our newsletter

This email is intended for the addressee(s) named and may contain confidential and/or privileged information.

If you are not the intended recipient, please notify the sender and then delete it immediately.

PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL





Kieren Bennetts Environment and Community Manager Wilpinjong Coal Locked Bag 2005 Mudgee, NSW, 2850

07/09/2020

Dear Mr Bennetts

Wilpinjong Coal Mine Extension (SSD-6764-PA-12) Various Management Plans

I refer to the various management plan submitted in accordance with Development Consent for the Wilpinjong Coal Mine Extension (SSD-6764).

The Department has carefully reviewed these documents and is satisfied some of these management plans meet the requirements of the relevant Conditions of Consent.

Accordingly, the Planning Secretary has approved the following documents:

- Blast Management Plan (Version 7, dated August 2020) Schedule 3 Condition 14
- Blast Fume Management Plan (Version 4, dated August 2020) Schedule 3 Condition 14
- Biodiversity Management Plan (Version 6, dated August 2020) Schedule 3 Condition 42
- Noise Management Plan (Version 5, dated August 2020) Schedule 3 Condition 5
- Spontaneous Combustion Management Plan (Version 6, dated August 2020) Schedule 3 Condition 20
- Air Quality Management Plan (Version 6, dated August 2020) Schedule 3 Condition 20
- Environmental Management Strategy (Version 7, dated August 2020) Schedule 5 Condition 1

Given proposed revisions the following management plans should be resubmitted individually, and consultation undertaken with the appropriate sections of NSW Heritage, either prior to submission, or via the Major Projects portal:

- Historic Heritage Management Plan
- Aboriginal Cultural Heritage Management Plan

Given proposed revisions to groundwater monitoring network, clean water diversions and water balance variations, the following management plans should be provided as one submission following consultation undertaken with DPIE Water and NRAR, either prior to submission, or via the Major Projects portal:

- Water Management Plan
- Groundwater Management Plan
- Surface Water Management Plan
- Site Water Balance

Please ensure that these approved plans are placed on the project website at the earliest convenience.

4 Parramatta Square, 12 Darcy Street, Parramatta 2150 | dpie.nsw .gov.au | 1



In future please provide each management plan as a separate submission via the Major Projects portal to allow review and approval.

If you wish to discuss the matter further, please contact Wayne Jones on 6575 3406.

Yours sincerely

Stephen O'Donoghue Director Resource Assessments As nominee of the Planning Secretary





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

lan

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 <<u>Andrew.Kearins@midwestern.nsw.gov.au</u>>; Sally Mullinger <<u>Sally.Mullinger@midwestern.nsw.gov.au</u>>; Council <<u>Council@midwestern.nsw.gov.au</u>> 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.





WILPINIONS EXTENSION PROJECT Project General Arrangement

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 councilæmidwestern.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,

100

Andrew Kearins Senior Works Engineer

www.midwestern.nsw.gov.au





stephen.shoesmith@planning.nsw.gov.au

Resource Assessments

Leesa Johnston

(02) 9274 6164

Contact:

Phone:

Email:



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

Department of Planning & Environment

Level 22, 320 Pitt Street Sydney NSW 2000 GPO Box 39 Sydney NSW 2001 www.planning.nsw.gov.au





Your reference Our reference Contact

: SF18/6996; DOC18/722507 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 <u>central.west@epa.nsw.gov.au</u>.

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





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





 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 <u>Christopher.Schultz@planning.nsw.gov.au</u>.

Yours sincerely

06.19 915-1.6

Katrina O'Reily 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





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





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



14.5 Appendix 5 - Blast Fume Management Strategy