



# **WAMBO COAL NOISE MANAGEMENT PLAN**

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## Document Control

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<b>Document Owner</b>	Environment & Community Manager

## Revisions

Rev No	Date	Description	By	Checked	Signature
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1	June 2005	Final Draft	Resource Strategies	JT/TS	
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3	May 2007	Consolidation of Rail & Mine Plans	Hansen Bailey	SW	
4	May 2012	Rail consent modification	WCPL	LJC	
5	Sept 2013	DA305-7-2003 MOD13	WCPL	TF	
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7	Sept 2017	Updated format & revised monitoring program	WCPL	SP	
8	Jan 2018	Updated to address DP&E comments and DA305-7-2003 MOD17 and minor formatting issues	WCPL	SP	
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10	Aug 2020	Update to reflect Phase 2 operations under DA 305-7-2003 MOD 16	WCPL	PJ	
11	Nov 2020	Updated to address DPIE comments	WCPL	ND	
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## 1.0 Introduction

### 1.1 Background

The Wambo Coal Mine (the Mine) is situated approximately 15 kilometres west of Singleton, near the village of Warkworth, New South Wales (NSW) (**Figure 1**). Wambo is owned and operated by Wambo Coal Pty Limited (WCPL), a subsidiary of Peabody Energy Australia Pty Limited (Peabody).

A range of open cut and underground mine operations have been conducted at WCPL since mining operations commenced in 1969. Mining under the current Development Consent (DA 305-7-2003) commenced in 2004 and initially permitted both open cut, underground operations and associated activities to be conducted.

The latest modification to DA305-7-2003 (Mod 19), approved by the Independent Planning Commission of NSW on 25 January 2023, requires development at Wambo to be undertaken in the following stages:

- Phase 1 - open cut mining operations at Wambo open cut mine, underground mining operations at Wambo underground mine and the operation of Wambo mine infrastructure (including minor upgrades to this infrastructure) within the green operational area identified in Figure 1 of Appendix 2<sup>1</sup>
- Phase 2 - underground mining operations at Wambo underground mine, the operation of Wambo mine infrastructure within the green operational area identified in Figure 2 of Appendix 2<sup>2</sup> and associated surface development
- Phase 3 - following the cessation of underground mining operations that includes mine closure.

The operation of WCPL's rail and coal loading infrastructure is undertaken in accordance with DA177-8-2004. The latest modification to DA177-8-2004 (Modification 3) was approved by the Independent Planning Commission of NSW on 29 August 2019.

This management plan has been updated for Phase 2 operations, as described in DA305-7-2003 (Mod 19) approved on 25 January 2023.

The approved run-of-mine (ROM) coal production rate for Wambo Underground Mine is 9.75 million tonnes per annum (Mtpa) and all product coal is transported from WCPL by rail.

A summary of the approved Wambo Underground Mine is provided in **Table 1**.

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<sup>1</sup> Of DA305-7-2003 (Mod 19)

<sup>2</sup> Of DA305-7-2003 (Mod 19)

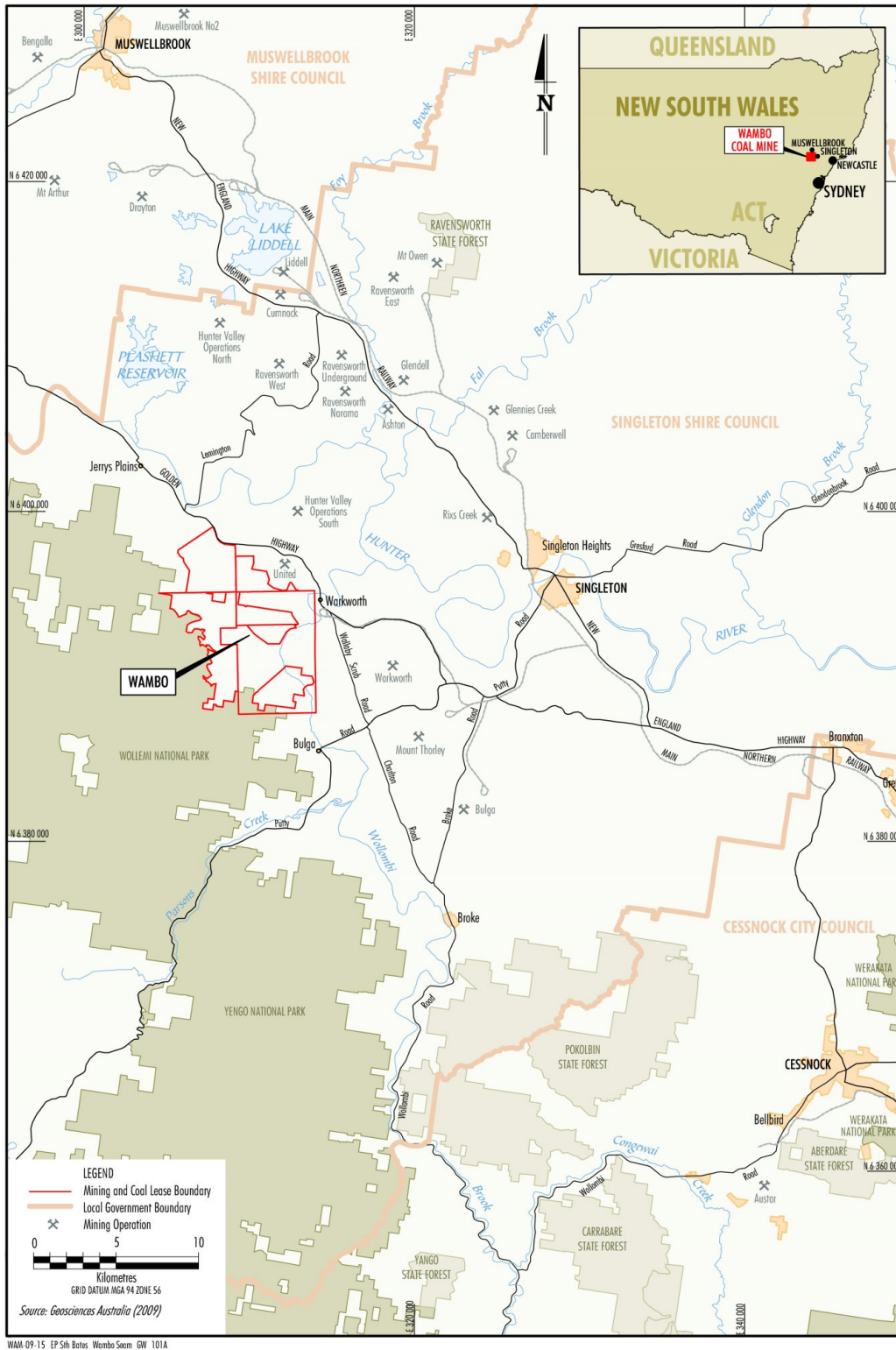


Figure 1: Wambo Coal Regional Location

**Table 1: Summary of the Approved Wambo Coal Mine – Phase 2**

Component	Approved WCPL <sup>1</sup>
Life of Mine	<ul style="list-style-type: none"> <li>19 years (until 31 August 2042).</li> </ul>
Open Cut Mining	<ul style="list-style-type: none"> <li>Open cut mining operations only during Phase 1 activities.</li> <li>A maximum of 8 Mt of ROM coal may be extracted from Wambo Open Cut in any calendar year (during Phase 1)</li> <li>An estimated total open cut ROM coal reserve of 98 Mt.</li> </ul>
Underground Mining	<ul style="list-style-type: none"> <li>Underground mining of up to 9.75 Mtpa of ROM coal in any calendar year.</li> <li>Underground ROM coal reserves are estimated at 161.3 Mt.</li> </ul>
Subsidence commitments and management.	<ul style="list-style-type: none"> <li>The subsidence impact performance measures listed in Conditions B1 and B4, Schedule 2, Part B of the Development Consent (DA 305-7-2003).</li> </ul>
ROM Coal Production Rate	<ul style="list-style-type: none"> <li>Up to 14.7 Mtpa of ROM coal from the Wambo Mining Complex and United Wambo open cut coal may be processed at the Wambo CHPP in any calendar year.</li> </ul>
Total ROM Coal Mined	<ul style="list-style-type: none"> <li>259.3 Mt.</li> </ul>
Waste Rock Management	<ul style="list-style-type: none"> <li>Waste rock deposited in open cut voids and in waste rock emplacements adjacent open cut operations.</li> </ul>
Total Waste Rock	<ul style="list-style-type: none"> <li>640 million bank cubic metres.</li> </ul>
Coal Washing	<ul style="list-style-type: none"> <li>CHPP capable of processing approximately 1,800 tonnes per hour.</li> </ul>
Product Coal	<ul style="list-style-type: none"> <li>Production of up to 11.3 Mtpa of thermal coal predominantly for export.</li> </ul>
Coal Handling and Preparation Plant Reject Management	<ul style="list-style-type: none"> <li>Coarse rejects and tailings would be incorporated, encapsulated and/or capped within open cut voids (that would comprise part of United's operations during Phase 2).</li> </ul>
Coal Transportation	<ul style="list-style-type: none"> <li>Carried out until 31 August 2042.</li> </ul>
Total CHPP Rejects	<ul style="list-style-type: none"> <li>Approximately 40.3 Mt of coarse rejects and approximately 24.5 Mt of tailings.</li> </ul>
Water Supply	<ul style="list-style-type: none"> <li>Make-up water demand to be met from runoff recovered from tailings storage areas, operational areas, dewatering, licensed extraction from Wollombi Brook and Hunter River.</li> </ul>
Surface Facilities	<ul style="list-style-type: none"> <li>Construction of surface facilities within the approved surface development area.</li> </ul>
Mining Tenements	<ul style="list-style-type: none"> <li>CL 365, CL 374, CL 397, CCL 743, ML 1402, ML 1572, ML 1594, ML1806, Authorisation (A) 444 and Exploration Licence (EL) 7211.</li> </ul>

**Note:** <sup>1</sup> Development Consent DA 305-7-2003 (as modified January 2023).

## 1.2 Purpose

The purpose of this NMP is to describe WCPL's noise management and mitigation strategies, procedures, controls and monitoring programs that are to be implemented for the management of mining and associated activities for the Mine. This NMP has been developed to:

- Describe the measures to be implemented to comply with the relevant noise conditions;
- Describe the management strategies to be implemented to minimise WCPL noise impacts during adverse meteorological conditions;
- Describe the management strategies to be implemented to minimise the noise emissions from the Mine;
- Describe the noise management system and monitoring program;



- Describe contingency plans to manage any unpredicted impacts and their consequences, i.e. Trigger Action Response Plans (TARPs);
- Provide a protocol for managing and reporting any noise related incidents, exceedances or non-compliances;
- Describe the interactions and coordination with neighbouring mines in particular the United Wambo open cut coal mine (United Wambo);
- Communicate with the local community and regulators regarding WCPL's noise monitoring activities;
- Describe and assign responsibilities relating to noise management at WCPL; and
- Describe how this NMP will be reviewed and updated.

### 1.3 Scope

This NMP applies to all activities undertaken within WCPL's mining authorisations and approved mining areas under Phase 2 of DA305-7-2003 (**Figure 2**) that may result in noise impacts. This NMP has been prepared to address the requirements detailed in WCPL's statutory approvals for noise management and provides management actions to be implemented to minimise WCPL's impact on the local community and environment. This NMP excludes the operations at the United Wambo Mine and contains a protocol for the allocation of individual noise contributions to the United Wambo and the Wambo Coal Mine.

This NMP forms part of WCPL's Environmental Management System (EMS) and provides a consistent process for notification and reporting in accordance with the Pollution Incident Response Management Plan (PIRMP).

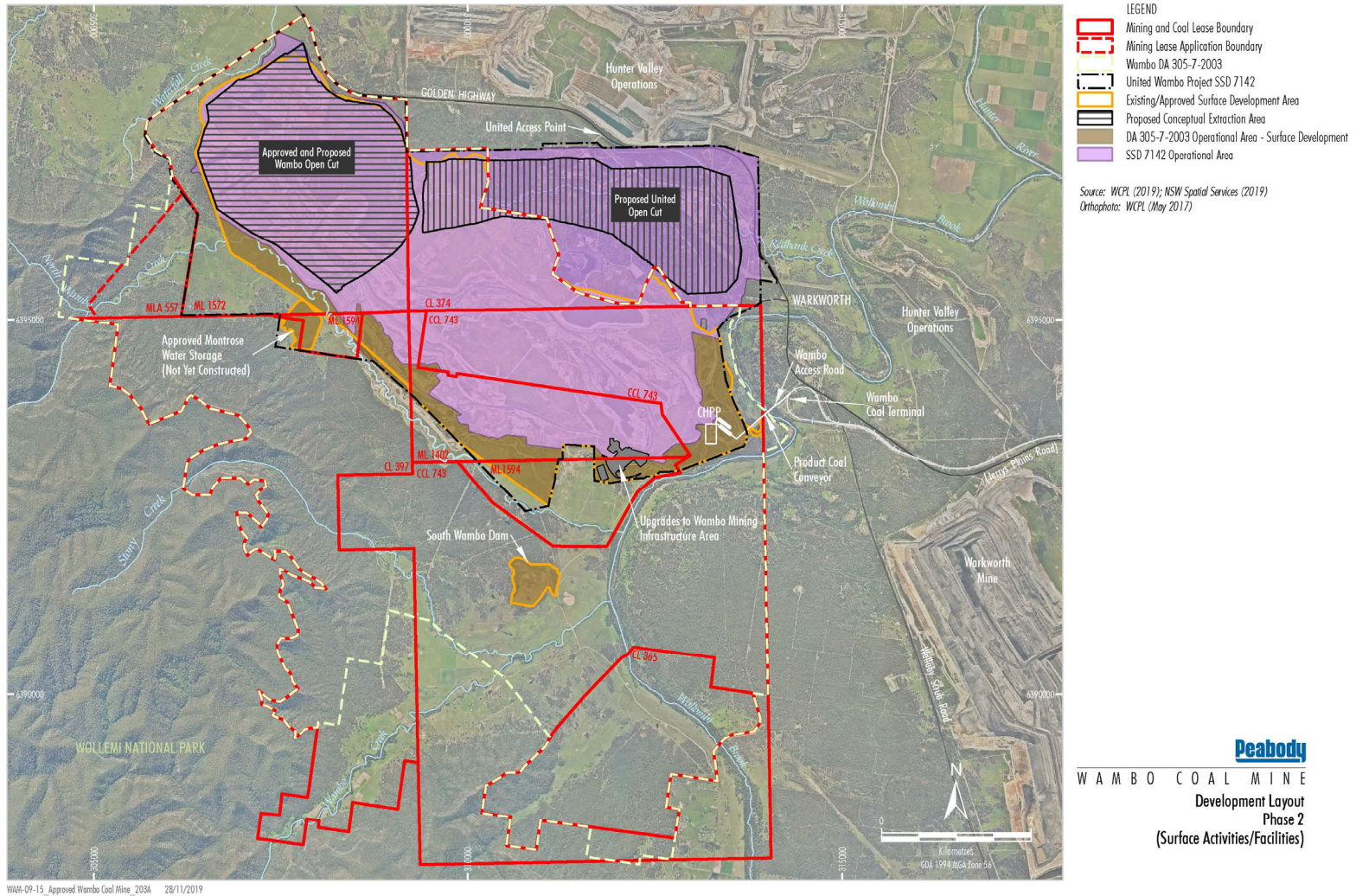


Figure 2: Approved Wambo Coal Mine Layout

## 1.4 Statutory Requirements

This NMP has been prepared to address the relevant conditions within DA 305-7-2003 and DA 177-8-2004 and the requirements of WCPL's Environment Protection Licence (EPL) 529 (**Appendix A**).

This NMP also complies with the following legislation:

- *Environmental Planning and Assessment Act 1979* (EP&A Act); and
- *Protection of the Environment Operations Act 1997* (POEO Act).

The NSW Industrial Noise Policy (INP) and Noise Policy for Industry (NPfl) are also discussed below.

### 1.4.1 Environmental Planning and Assessment Act 1979

WCPL received Development Consent (DA 305-7-2003) in accordance with the *Environmental Planning & Assessment Act 1979* (EP&A Act) from the NSW Department of Planning Industry and Environment (DPIE), formerly NSW Department of Planning, on 4 February 2004. Conditions within DA 305-7-2003 (Mod 19) relevant to noise are summarised in **Appendix A**.

DA 177-8-2004 was granted on 16 December 2004 for the Wambo Rail Development. Conditions within DA 177-8-2004 (Mod 3) relevant to noise are summarised in **Appendix A**.

### 1.4.2 Protection of the Environment Operations Act 1997

WCPL operates under EPL 529 issued by the NSW Environment Protection Authority (EPA) under the authority of the *Protection of the Environment Operations Act 1997* (POEO Act). EPL 529 is administered by the EPA. Conditions within EPL 529 relevant to noise are summarised in **Appendix A**.

A Pollution Incident Response Management Plan (PIRMP) has been prepared by WCPL, as holder of EPL 529 in accordance with Part 5.7A of the POEO Act and Part 3A of the *Protection of the Environment Operations (General) Regulation 2009* (POEO Regulation). For more information regarding WCPL's protocol for reporting environmental incidents refer to **Section 8.5**.

### 1.4.3 Industrial Noise Policies

The NSW Noise Policy for Industry (NPfl) was released in October 2017 and supersedes the NSW Industrial Noise Policy (INP).

However, DA 305-7-2003 and DA 177-8-2004 reference the INP in relation to exemptions (including certain meteorological conditions) from the noise impact assessment criteria.

The NPfl outlines a revised approach to determining noise with dominant low frequency content using a modified UK Department of Environment, Food and Rural Affairs (DEFRA) method (as described in Downey and Parnell [2017]). The EPA have issued a document detailing implementation and transitional arrangements for the NPfl which states:

*The NSW Industrial Noise Policy (2000) will continue to apply where it is referenced in existing statutory instruments (such as consents and licences), except for the NSW Industrial Noise Policy Section 4 modifying factors, which will be transitioned to the Noise Policy for Industry (2017) Fact Sheet C through a NSW Industrial Noise Policy*

*application note. This approach has been taken because the Noise Policy for Industry (2017) modification factor approach reflects more recent understanding of the impact of tonal and low-frequency noise on the community.*

Accordingly, modifying factors will be applied in accordance with the NPfl.

### **1.5 Stakeholder Consultation**

Condition B17 (a) of DA305-7-2003, requires the NMP to be prepared by a suitably qualified and experienced person. WCPL wrote to DPIE 17 February 2020 requesting endorsement of Mr Tony Welbourne from Global Acoustics. Mr Welbourne's endorsement was received 28 February 2020.

Condition B17 (b) of DA305-7-2003, requires WCPL to prepare this NMP in consultation with the EPA and submitted to the Planning Secretary for approval.

On 8 September 2020 the draft version 10 of this NMP was provided to DPIE and the EPA for comment. No comments were received from the EPA. DPE provided comments on 30 October and 13 November 2020. DPE comments were addressed in Version 11 of the NMP.

Version 12 of the NMP was provided to the EPA for consultation 4 September 2023. No comments were received from the EPA. The NMP was approved by DPE 5 December 2023.

Evidence of consultation in relation to the NMP is included in **Appendix B**.

### **1.6 Summary of Commitments**

A Summary of Commitments relating to this Plan is included in **Appendix D**.



## 2.0 Baseline Data

### 2.1 Noise Data

Ambient noise surveys to characterise the acoustic environment surrounding the existing mine were conducted in December 2002 as a component of the EIS. Eight unattended noise loggers were positioned at selected locations for a period of 12 days. The objective of the monitoring program was to establish background noise levels in the absence of any significant influence from activities at the Mine.

In order to supplement the unattended logger measurements and to assist in identifying the character and duration of ambient noise sources, operator-attended day-time and night-time surveys were also conducted at all eight monitoring locations. The operator attended measurement results are summarised in **Table 2**.

**Table 2: Operator Attended Background Noise Environment dBA (2002)**

General Locality	Land Owner	L <sub>A90</sub> (15 minute) Ambient Level			L <sub>Aeq</sub> (15 minute) Mine in 2002*			L <sub>Aeq</sub> (15 minute) Industrial Noise (Non Mine*)		
		Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Wambo Road	2 Lambkin (WCM* Boundary)	31	32	32	N/D			N/D		
		31	31	34						
	25 Fenwick (Property)	27	34	30	N/D	N/D	32	N/D		
		27	36	33	N/D	< 35	N/D			
Warkworth Village	19(A) Kelly (WCM* Boundary)	56	43	39	< 40	< 35	38	N/D		
		38	45	45	N/D	N/D	46			
	51 Hawkes (WCM* Boundary)	-	39	-	-	43	-	N/D		
		34	-	-	-	-	-			
	56 Haynes (WCM* Adjacent)	42	43	35	N/D	N/D	34	N/D		
		42	43	43	N/D	N/D	44			
Redmanvale /Pinegrove Roads	15(B) McGowan / Caslick (Property)	36	31	30	N/D			N/D		
		35	41	-						
Golden Highway	31D Fisher (Property)	39	39	34	N/D			N/D		
		39	38	-						
	31 (A,B,C,D) Fisher (20m from road)	37	47	36	N/D			N/D		
		40	37	-						

**Notes:** N/D – not discernible.

\* Wambo Coal Mine as operating in 2002.

Source: Table 3.1.1, Noise and Blasting Assessment (Heggies, 2003).

## 2.2 Meteorological Conditions

WCPL owns and operates a meteorological station (WS1) which is located within the project boundary approximately 350 m east of the WCPL administration building.

Temperature varies throughout the year, with cooler conditions in winter and warmer conditions in summer. Annual rainfall (2011-2022) has ranged from 386mm in 2019 to 1192mm in 2022 (**Table 3**).

Table 3: Annual Rainfall (mm) (2011-2022)

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
787	430	635	559	738	721	442	536	386	966.6	1,188.6	1,192.6

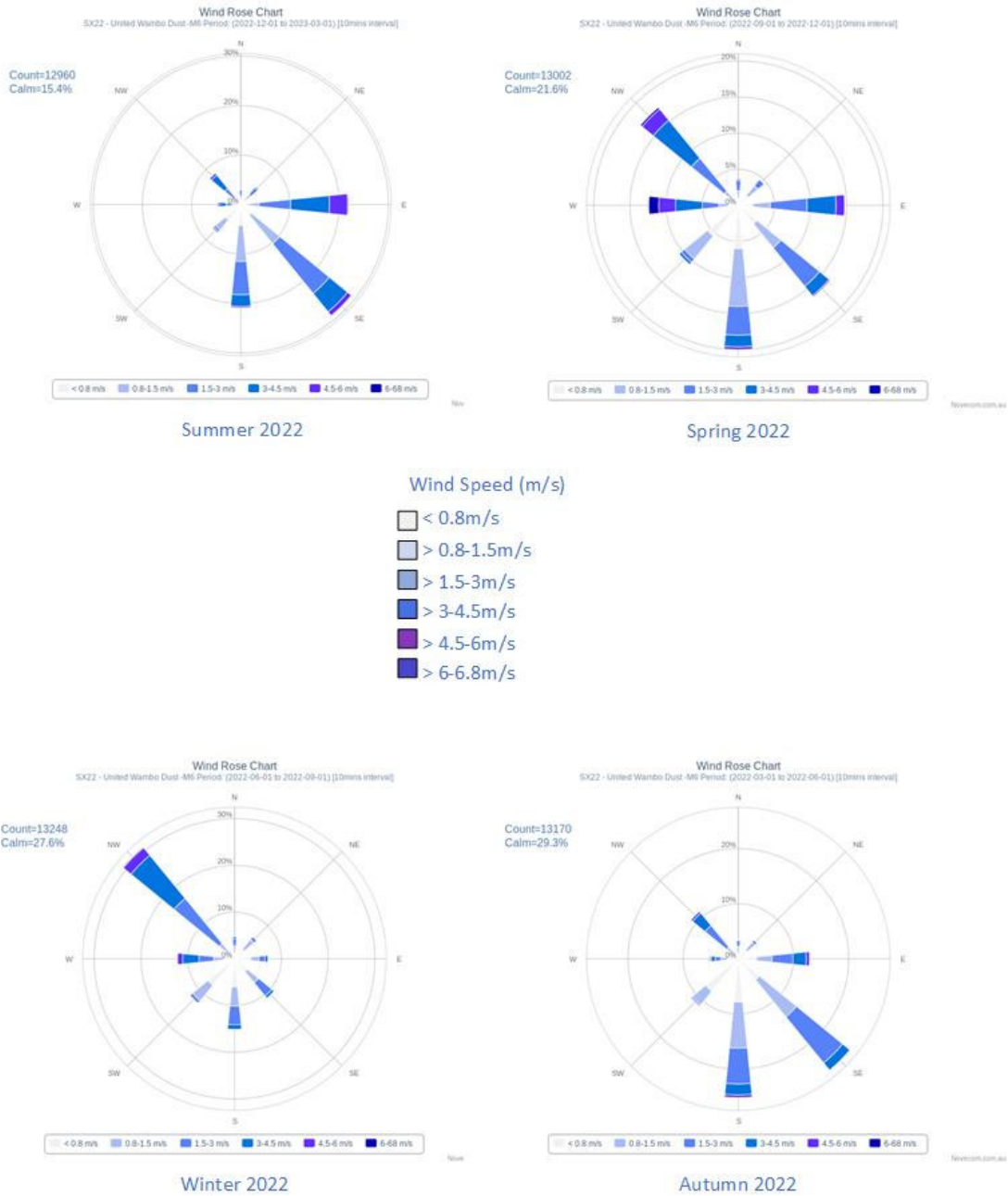
**Error! Reference source not found.** shows the annual wind patterns for the years 2018 - 2022 for the Wambo meteorological monitoring station. It can be seen from these wind-roses that the most common winds in the area are from the south-southeast, south-east and west-northwest. This pattern of winds is common for many parts of the Hunter Valley and reflects the northwest-southeast alignment of the valley.

It is also clear from **Error! Reference source not found.** that wind patterns were similar throughout the five year period. This suggests that wind patterns do not vary significantly from year to year.

**Error! Reference source not found.** shows the seasonal wind patterns for 2022 for the Wambo meteorological monitoring station. During summer, winds are typically from the south-east quadrant dominated by winds from the east-southeast, south-east and east. The autumn wind distribution is similar to the annual pattern and shows overall lower wind speeds and fewer winds from the west-northwest. The winter distribution is dominated by winds from the west-northwest, with relatively few winds from other directions. Spring has a varied wind distribution pattern with winds occurring from the south-southwest ranging to the east-northeast and other winds from the west-northwest and north-west sectors.



Figure 3: Annual Wind Roses (2018-2022)



**Figure 4: Seasonal Wind-Roses (2022)**



### 3.0 Noise Compliance Requirements

#### 3.1 Noise Impact Assessment Criteria

In accordance with Condition B13 of DA 305-7-2003, WCPL will ensure that all reasonable and feasible avoidance and mitigation measures are employed so that noise emissions generated by the Mine in Phase 2 operations do not exceed impact assessment criteria at any residence on privately-owned land listed in **Table 4**.

**Table 4: Noise Impact Assessment Criteria dBA during Phase 2**

Noise Assessment Area	Noise Assessment Location <sup>^</sup>	Day <sup>#</sup> L <sub>Aeq</sub> (15 minute)	Evening <sup>#</sup> L <sub>Aeq</sub> (15 minute)	Night <sup>#</sup> L <sub>A1</sub> (15 minute)	Night <sup>#</sup> L <sub>A1</sub> (1 minute)
Area 1 – North Bulga					
	R007	37	37	37	47
	All other privately owned residents	35	35	35	45
Area 2 – South Wambo	R025	39	39	39	49
	All other privately owned residents	35	35	35	45
Area 3 – Warkworth Village					
	All other privately owned residents	44	44	43	53
All other areas	All other privately owned residents	35	35	35	45

**Note:** Noise generated at Wambo Mining Complex is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the INP.

<sup>#</sup> Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays; Evening is defined as the period from 6pm to 10pm; Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.

<sup>^</sup> For more information on the numbering and identification of properties, see Appendix 4 of DA 305-7-2003.

Under the exemptions of the INP, the noise impact assessment criteria in DA 305-7-2003 do not apply under certain meteorological conditions (refer **Section 6.1**).

#### 3.2 Land Acquisition

There are currently no private properties that fall within the acquisition zone for Wambo mine. Surrounding properties that originally fell within this acquisition zone at the granting of DA305-7-2003 have now been acquired.

### 3.3 Mitigation on Request

In accordance with Condition C2 of DA305-7-2003, upon receiving a written request from the owner of any residence on the privately-owned land listed in Table 12 of DA305-7-2003, WCPL will implement additional mitigation measures at or in the vicinity of the residence in consultation with the landowner. These measures will be consistent with the measures outlined in the *Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments* (VLAMP) (NSW Government, 2018). They will also be reasonable and feasible, proportionate to the level of predicted impact and directed towards reducing the relevant noise and/or air quality impacts of the development.

WCPL is responsible for the reasonable costs of ongoing maintenance of these additional mitigation measures until the cessation of mining operations.

## 4.0 Mitigation and Management Measures

### 4.1 Noise Mitigation and Management Measures

WCPL has implemented a number of noise management controls in order to mitigate any potential noise impacts from the operation. These noise management controls are typically classified into design controls and operational controls which are detailed further in **Section 4.1.1** and **Section 4.1.2**.

#### 4.1.1 Design Control Measures

WCPL has designed and implemented a range of mine design features with consideration to the mitigation of noise for its operations. The following is a summary of existing and proposed design control measures:

- Construction of noise and visual bunds in strategic operational locations, including:
  - A noise/visual bund along the southern portion of the product coal stockpile area adjacent to the coal handling preparation plant (CHPP); and
  - A noise/visual bund along the south eastern portion of the rail loop/rail load out area.
- Implementation of a CHPP with the following design considerations:
  - A largely enclosed plant that effectively contains noise generated within the coal processing facility;
  - Conveyor drives that are placed low to the floor level; and
  - Key components for the CHPP that were procured with specific noise criteria.
- WCPL owns and manages considerable land around its operation to provide a buffer between sensitive receivers to the south and to the north-west (refer to **Figure 3**).
- WCPL will investigate the installation of acoustic barriers around work areas where required. WCPL has implemented this for all exploration drill rigs which are located close to sensitive receivers;
- Ventilation fans and coal conveyors for the existing South Bates Underground Mine have been installed in pit to mitigate noise propagation; and
- WCPL will undertake an acoustic design review prior to the construction of the two most southern ventilation shafts required for the South Wambo Underground Mine and will implement noise mitigation if required to achieve compliance with the relevant noise criteria at nearby privately-owned receivers.

#### 4.1.2 Operational Control Measures

WCPL is committed to implementing best practice noise management measures to minimise noise impacts, particularly low frequency noise and traffic noise from its operations. A number of proactive management measures are implemented to minimise noise generation from WCPL underground and CHPP operations, including:

- Maintenance of plant and equipment and pre-start up inspections;
- Operation of all machinery and potential noise emitting plant and equipment by experienced and trained personnel;
- Installation of broadband reverse alarms (“quackers”) to mitigate noise propagation from reversing fleet vehicles;

- Positioning of portable generators and/or machinery to take advantage of barriers to mitigate sound travel and/or positioned at the greatest distance from the noise-sensitive area where practical;
- Turning off or throttling plant and equipment down when not in use;
- During site inductions, providing employees and contractors with information and training on:
  - potential noise impacts on neighbouring residents;
  - reporting excessive noise to WCPL management; and
  - carrying out quiet work practices.
- Providing employees and contractors with toolbox talks on slowing down when driving to and leaving site to minimise traffic noise;
- Conducting specific noise management training for key WCPL operational personnel;
- Procuring all new equipment to site (purchased or hired) in line with EIS plant and mobile sound power level (SWL) specifications for noise emissions to meet noise criteria at the residences nearest the Mine and to ensure that operations are generally in accordance with the EIS modelled noise footprint; and
- Non mine related construction activities will generally be undertaken between 7.00 am and 7.00 pm daily. Construction activities may occur outside these hours when WCPL is satisfied that such activities are below noise criteria at nearest private residences on advice from a WCPL appointed acoustic specialist.

#### 4.1.3 Rail Noise

In accordance with Condition B1(c) of DA 177-8-2004, the rail spur will only be accessed by locomotives that are approved to operate on the NSW rail network in accordance with noise limits L6.1 to L6.4 in RailCorp's EPL (No. 12208) and ARTC's EPL (3142) or a Pollution Control Approval issued under the former *Pollution Control Act 1970*.

## 4.2 Proactive Noise Management Measures

Proactive noise management at WCPL is implemented by reviewing predictive meteorological forecasting. This information is used to evaluate the likely risk of noise impacts during upcoming sensitive periods. In the event that unfavourable meteorological conditions are identified, contingency measures (such as those discussed in **Section 4.1.2**) will be implemented by WCPL to mitigate adverse noise propagation.

### 4.2.1 Predictive Meteorological Forecasting

The Environment and Community Manager (E&C Manager) and key operation personnel receive detailed 7 day meteorological forecasts from Weatherzone. The meteorological forecasts are reviewed for upcoming predicted temperature inversion conditions and wind directions that may trigger operational responses.

The Weatherzone Noise Risk Forecast system utilises the EPA approved Pasquill-Gifford atmospheric classification system. This system essentially predicts the height and strength of inversion layers above the ground and possible associated enhancements of noise.

In addition to the predictive forecasts, actual measured temperature and wind speeds from the WCPL meteorological station (WS1) are monitored to identify if operational responses may be required.

### 4.3 Real Time Noise Monitoring

United Wambo have established four permanent real-time noise monitoring locations, situated at locations representative of the nearest private residences. Real-time noise monitoring will be used for reactive noise management of day to day operations associated with the open cut activities at United Wambo. The real-time monitors will provide 24 hour continuous information on the ambient noise levels and meteorological data local to the monitoring site and generate quantitative data and audio recordings that can be used to determine the likely noise source. United Wambo will advise if WCPL has been identified as a source that needs actioning.

United Wambo will compare the real time noise monitoring to attended monitoring results quarterly. The process will involve comparing night time 15-minute compliance noise survey data obtained at or near each of the real time monitoring. The process will provide a trigger for changes to real-time monitoring noise alarms or further attended monitoring, where required.

### 4.4 Continuous Improvement

WCPL will implement all reasonable and feasible best practice noise mitigation measures during the life of the operation. The basis for continuous improvement will consider implementation of new noise mitigation measures. Any new noise mitigation measures that are implemented as a result of these reviews will be reported in the Annual Review as required by Condition D10 of DA305-7-2003.

### 4.5 Training and Communication

To ensure the effective implementation of this NMP, all WCPL personnel and contractors receive noise awareness information during the general introduction to site training. This training will include awareness to all employees to minimise road traffic noise generated by employee commuter vehicles on public roads, including:

- awareness of local residential areas, including the Jerrys Plains and Warkworth areas; and
- driving respectfully through areas with residences, including limiting use of horns, no revving of engines and obeying speed limits.

Additional information regarding noise management can also be provided via toolbox talks, pre-start meetings and at the senior management meeting level as required.

Specific noise management training is also provided to key WCPL employees. This includes the use of sound level meters. The training is provided by a WCPL-appointed acoustic specialist and allows WCPL to verify noise levels at sensitive receivers to confirm the status of the operations noise compliance and thus implement contingency measures if required.

### 4.6 Additional Noise Management Measures

#### 4.6.1 Landowner Notification

If the results of compliance monitoring identify that noise levels generated by the development are greater than noise impact assessment criteria in **Section 3.1**, then WCPL will notify relevant landowners and/or tenants as soon as practicable after identifying the exceedance.

#### 4.6.2 Independent Review

If a landowner considers WCPL to be exceeding noise impact assessment criteria listed in **Section 3.1** at his/her dwelling, or at any proposed dwelling on his/her vacant land, then he/she may ask WCPL (in writing) for an independent review of the noise impacts of the development on his/her dwelling, or proposed dwelling.

If the Secretary is satisfied that an independent review is warranted, WCPL will:

- 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 noise monitoring to determine whether WCPL is complying with relevant impact assessment criteria; and
  - If WCPL is not complying, identify measures that could be implemented to ensure compliance with the relevant criterion;
- give a copy of the independent review to the Secretary and landowner; and
- comply with any written requests made by the Planning Secretary to implement any findings of the review.

#### 4.6.3 Noise Management Coordination

WCPL will use its best endeavours to coordinate noise management with nearby mines to reasonably and feasibly minimise cumulative noise impacts.

Where high noise levels from other mines are noted during compliance monitoring or during the assessment of the ongoing performance of WCPL, discussions will be initiated with the relevant mining operations to inform them of the observations.

When appropriate, data will be shared between the mining operations with real time noise monitoring equipment. United Wambo will advise if WCPL has been identified as a source that needs actioning.

## 5.0 Noise Monitoring Program

### 5.1 Attended Noise Monitoring

WCPL attended noise monitoring is carried out monthly. The monitoring is conducted by a WCPL appointed acoustic specialist who measures and describes the acoustic environment at each attended monitoring location. The attended noise monitoring results are compared with noise impact assessment criteria (as defined in **Section 3.1**) to assess compliance. Attended noise monitoring is considered the preferred method for determining compliance with prescribed limits because it allows for an accurate determination of the contribution, if any, made by industrial noise sources to measured ambient noise levels.

Operator attended noise measurements are conducted during night period<sup>3</sup> operations to quantify noise emissions from WCPL as well as the overall level of ambient noise.

Noise levels ( $LA_{max}$  and  $LA_{eq}$ ) from the Mine are quantified over a 15 minute measurement period. In addition, the overall levels of ambient noise (i.e.  $LA_{max}$ ,  $LA_1$ ,  $LA_{10}$ ,  $LA_{50}$ ,  $LA_{90}$ , and  $LA_{eq}$ ) over the 15 minute period will be quantified and characterised.

Attended noise monitoring will be conducted at a representative location in accordance with the NPfl and Australian Standard AS 1055 'Acoustics, Description and Measurement of Environmental Noise'.

Attended noise monitoring is undertaken at five locations as shown in **Table 5**. The attended noise monitoring network locations have been strategically chosen to provide sufficiently appropriate noise monitoring coverage (refer to **Figure 3**).

**Table 5: Attended Noise Monitoring Locations**

Noise Assessment Area*	Site Ref	EPL529 ID	Description	Approximate Co-ordinates (MGA 94, z56)		Representative Addresses
				Easting	Northing	
1	N01	N/A	North Bulga	313352	6388696	6, 7
2	N21	22	South Wambo	310586	6390149	25
-	N16	20	Jerrys Plains Road	306000	6399785	Privately owned residences near Jerry's Plains
-	N20A	21	Redmanvale Road Central	304666	6399100	Privately owned residences near Jerry's Plains
-	N26	23	Redmanvale Road South	304172	6398160	Privately owned residences near Jerry's Plains

Notes for Table 5

\* The Noise Assessment Areas are shown on Figure 3

<sup>3</sup>In general, weather enhancing conditions are more likely to occur at night which has the greatest potential to cause an exceedance. This approach is consistent with the *NSW Draft Guidelines: Mining Noise Monitoring Application Note*. However WCPL will review the data in accordance with this Noise Management Plan to determine if there are compelling reasons to revert back to day time attended monitoring. Please note that evening and night time noise level criteria are the same.

Measurement of rail pass-by noise levels was removed from the monitoring program in Version 5 of the NMP, following a demonstrated history of compliance. Monitoring will be recommenced if triggered by complaint or change in rolling stock used to transport coal from WCPL.

Meteorological data from the WCPL meteorological station will be utilised to correlate atmospheric parameters and measured noise levels. Ground level atmospheric condition measurement is also undertaken during attended monitoring. Noise criteria only apply in meteorological conditions specified in the conditions. A detailed Compliance Assessment Methodology has been developed to determine the individual noise contributions of the separate United Wambo and Wambo operations (**Section 6.1**).

Modifying factors will be assessed in accordance with the NPfl.

## 5.2 Survey Noise Monitoring

WCPL will conduct survey noise monitoring in response to complaints in the event that verification is needed to determine if the noise source is predominantly mining noise from WCPL.

Survey noise monitoring at WCPL will be undertaken by trained WCPL personnel utilising industry standard sound level meters.

The results from survey noise monitoring will be used to verify the noise contribution from the Mine at sensitive receiver locations and assist relevant site personnel in determining the course of action if noise levels are at/over or approaching WCPL noise criteria.

Noise monitoring will usually be for a short duration of 3 – 5 minutes to allow multiple sites to be visited or revisited. Acoustic techniques such as low pass filtering may be employed to assist in quantifying the contribution of noise from a particular mine to the overall noise environment.

## 5.3 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 station has been sited in accordance with sampling method AM-1 i.e. AS 2922-1987 Ambient Air – Guide for the Siting of Sampling Units.

The meteorological station is routinely calibrated and maintained by accredited technicians. Meteorological monitoring will be undertaken in accordance with Condition M4 of EPL 529, as summarised in **Table 6**.



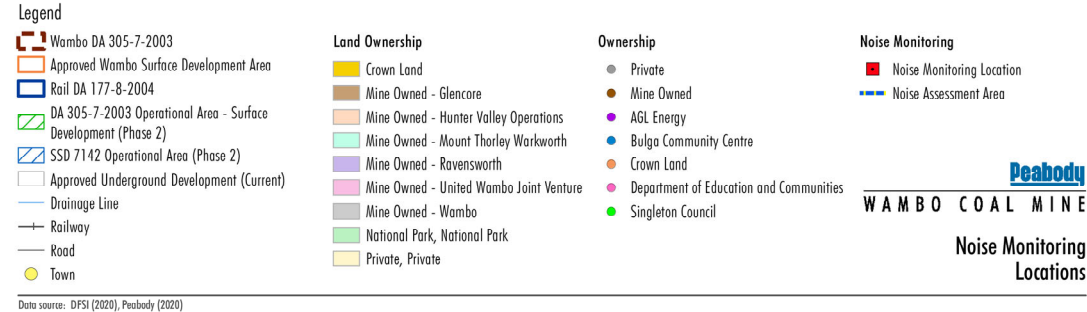
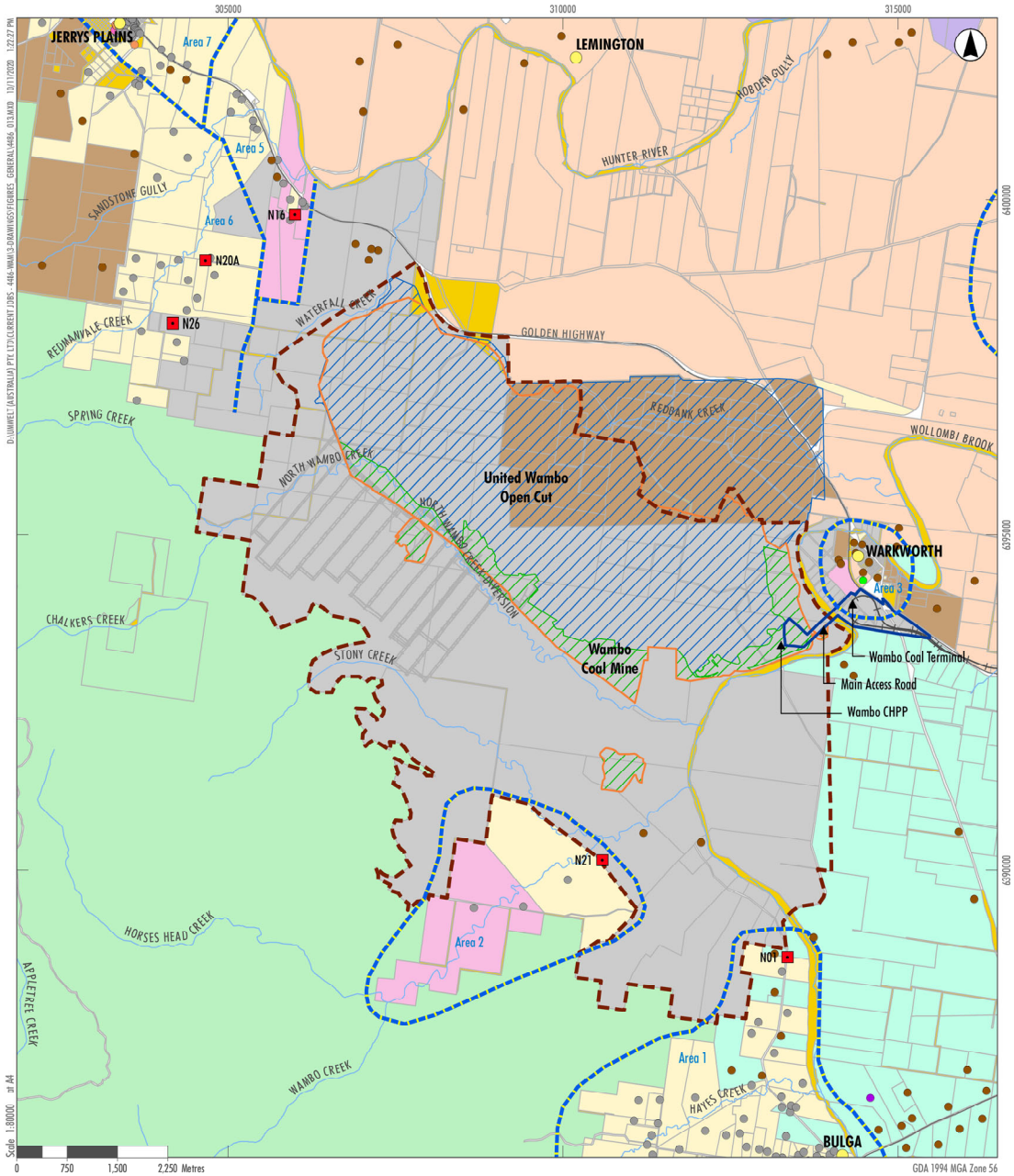


Figure 3: Noise Monitoring Locations

**Table 6: Meteorological Monitoring**

Parameter	Sampling Method <sup>1</sup>	Units of Measure	Averaging Period <sup>2</sup>	Frequency
Rainfall	AM-4	mm	1 hour	Continuous
Wind Speed at 10 metres	AM-2 & AM-4	m/s	15 minutes	Continuous
Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous
Temperature at 2 metres and 10 metres	AM-4	Celsius	15 minutes	Continuous
Sigma Theta (at 10 metres)	AM-2 & AM-4	Degrees	15 minutes	Continuous
Total Solar Radiation (at 10 metres)	AM-4	Watts/m <sup>2</sup>	15 minutes	Continuous
Lapse Rate <sup>3</sup>	-	°C /100m	-	-

Notes:

1. DEC, 2007. *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.
2. For the purposes of assessing air quality consistent with the PM monitoring, meteorological data will be recorded in 10 minute intervals. However, 1 hourly averages will also be calculated as per Condition 10, Schedule 4 of DA305-7-2003.
3. Lapse rate (required to be calculated in accordance with Condition 1 Appendix 5 of DA305-7-2003) will be calculated from measurements made at 2m and 10m.

## 5.4 Cumulative Impact Protocol

Where high noise levels are observed during compliance monitoring or during the assessment of the ongoing performance of Wambo, discussions will be initiated with the relevant mining operations to inform them of the observations. WCPL will rely on United Wambo to advise if WCPL has been identified as a source that needs actioning during real-time monitoring.

Additionally, where other operations are identified as being the source of the noise, either when investigating a complaint or in the response to noise alarms, notification of the noise impact to the mining operations will be made to advise them of the issue.

## 5.5 Monitoring Records

Monitoring records are maintained in accordance with Condition M1 of EPL 529:

- In a legible form, or in a form that can readily be reduced to a legible form;
- Kept for at least 4 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.

## 5.6 Data Handling

Data collected during attended noise monitoring will be handled in accordance with the procedures described in **Table 7**.

**Table 7: Data Handling Methodology**

Parameter	Procedure
Meteorology	<ul style="list-style-type: none"> <li>• Summary data obtained from the monitoring instrumentation.</li> <li>• Data entered into an electronic database (or similar) for analysis and tracking.</li> </ul>
Acoustic Data	<ul style="list-style-type: none"> <li>• Data obtained from the monitoring instrumentation.</li> <li>• Data maintained as an electronic spread sheet for analysis and tracking.</li> </ul>

## 6.0 Evaluation of Performance

### 6.1 Compliance Assessment

The results of attended noise monitoring will be analysed and compared with noise criteria defined in **Section 3.1** to assess compliance.

As stated in Condition 1 of Appendix 5 of DA305-7-2003, noise criteria in Condition B12 are to apply under all meteorological conditions except the following:

- a) where 3°C/100 metres (m) lapse rates have been assessed, then:
  - i. wind speeds greater than 3 metres/second (m/s) measured at 10m above ground level;
  - ii. temperature inversion conditions between 1.5°C and 3°C/100m and wind speeds greater than 2m/s measured at 10m above ground level; or
  - iii. temperature inversion conditions greater than 3°C/100m.
- b) where Pasquill Stability Classes have been assessed, then:
  - i. wind speeds greater than 3m/s at 10m above ground level;
  - ii. stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10m above ground level;
  - iii. stability category G temperature inversion conditions.

As required by Condition 3 of Appendix 5 of DA305-7-2003, the attended compliance monitoring will be carried out in accordance with the methods specified in this NMP, which comply with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (EPA, 2000), in particular the requirements relating to:

- a) monitoring locations for the collection of representative noise data;
- b) meteorological conditions during which collection of noise data is not appropriate;
- c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
- d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration, with the exception of applying appropriate noise modifying factors during compliance testing. This will be undertaken in accordance with *Fact Sheet C of the NSW Noise Policy for Industry* (EPA, 2017).

During attended monitoring it may be that mines other than WCPL are also contributing to measured mining noise. There are a number of ways to differentiate the contributions of each source such that a result for Wambo Mine only is determined. These include but are not limited to the following:

- Spectral analysis if contributions are in predominately different parts of the spectrum (a common approach when the only sources are a single mine and nature);
- Pausing out unwanted contributors;
- Observation of single source level when only that one is audible, and adjustment of total levels based on noted contributions of individual sources;

- Adoption of appropriate alternate descriptor as estimated LAeq or with adjustment to estimate LAeq if required and possible; and
- Calculation of LAeq based on duration and level of events.

It is noted that the above points are generic descriptions of those approaches. The detailed application of each is determined during measurement and relies on professional judgement and experience for effective evaluation.

A detailed Compliance Assessment Methodology was developed by United Wambo in consultation with the DPIE and EPA in order to determine the individual noise contributions of the separate United Wambo and Wambo operations. This compliance assessment methodology will also be implemented by the Wambo Mine to identify the contribution from each operation at each monitoring location and to determine compliance with the relevant consent conditions. The detailed methodology is included in **Appendix C**.

## 6.2 Noise Exceedance Investigation

Should an exceedance of any criterion (as described in **Section 3.1**) be determined from attended noise monitoring (where WCPL is deemed responsible), the noise exceedance will be recorded as an environmental incident and documented in the Environmental Incident Register. All reportable incidents will trigger an investigation led by the E&C Manager and other relevant personnel. Notification of reportable incidents to the relevant government authorities will be in accordance with **Section 8.5**. The following details will be recorded within the incident form and subsequent investigation, but not limited to:

- Time of the noise exceedance;
- Location where attended monitoring identified exceedance;
- Meteorological conditions at the time;
- Potential contributing factors;
- Outcomes of preliminary site investigations;
- Proposed corrective measures; and
- Determination of whether it is a reportable or non-reportable incident.

## 6.3 Mitigation Strategies to Prevent Exceedance Re-occurrences

In the event of a reportable noise exceedance, all corrective actions identified from the investigation process (as described in **Section 6.1**) will be implemented to mitigate the potential for a reoccurrence. Noise mitigation and corrective management measures will consider:

- Proximity of future operational activities to potential sensitive receivers;
- Incorporating any identified improvements into noise mitigation measures as detailed in **Section 3.3** as a result of investigations; and
- Avoiding possible contributors to the exceedance of the noise criteria for example adverse meteorological conditions.

Any identified noise mitigation measures that can be implemented to avoid a re-occurrence of a reportable environmental incident and/or an exceedance of the noise criteria will be implemented as soon as practicable.

## 6.4 Adaptive Management

### 6.4.1 Trigger Level and SMS Alarm System

WCPL has identified several scenarios that pose a potential risk to achieving the outcomes of the NMP. A Trigger Action Response Plan (TARP) as provided by **Table 8** provides contingency measures, responsibilities and management for unforeseen impacts as a result of operational activities.

**Table 8: Noise Trigger Action Response Plan**

	Normal State	Community Complaint
<b>Trigger</b>	No alerts.	<ul style="list-style-type: none"> <li>Community complaint received.</li> </ul>
<b>Action</b>		<ul style="list-style-type: none"> <li>E&amp;C Manager (or delegate) to contact complainant for further clarification.</li> <li>E&amp;C Manager (or delegate) to determine likely source of noise</li> <li>Review meteorological conditions.</li> </ul>
<b>Response</b>		<ul style="list-style-type: none"> <li>If noise verification determines an exceedance as a result of Wambo operations, an operational review will be undertaken to rectify the source of the noise.</li> <li>The outcomes of the investigation will be provided to the complainant.</li> <li>Systemic noise complaints will trigger a review of noise results by an acoustic specialist where warranted.</li> </ul>

If at any location a criterion is exceeded during attended compliance monitoring that location will be re-monitored later that same night but not within one hour of the original measurement. This is in case site were aware of high levels at the time of the first measurement and actions to reduce noise were being implementing at that time. However, it can be considered a failure of site noise management if noise levels are still too high one hour later, in which case this event becomes an exceedance/notifiable incident (subject to assessment as outlined in Section 6.1).

Site is notified of potential exceedances during the attended monitoring. This enables operational changes to be made to ensure that the cause of the potential exceedance is identified and does not recur. There is no formal correspondence to site on the night of the monitoring. Formal correspondence of an exceedance is received following validation of the meteorological conditions.

## **7.0 Community Complaint Response**

All noise related community complaints received by WCPL will be recorded within the Community Complaints Register. The E&C Manager will investigate the complaint, which will include contacting the complainant within 24 hours to discuss the complaint. A review of the effectiveness of any corrective or preventative actions will be conducted within a month of the complaint and the relevant work procedures updated if required.

Preliminary investigations will commence as soon as practicable upon receipt of a complaint to establish if WCPL is responsible. All efforts will be made to determine the likely causes contributing to the complainant's concerns using information such as the meteorological conditions and the nature of activities taking place. It should be noted that a complaint does not necessarily mean an exceedance has occurred.

WCPL will attempt to address the complainant's concerns such that a mutually acceptable outcome is achieved. If a mutually beneficial outcome cannot be reached, WCPL may refer the matter to the Planning Secretary for resolution.

In the event that an exceedance of a noise criterion is identified during compliance monitoring any affected landowner will be notified within seven days of confirmation of that exceedance.

Details of all community complaints will be included in the Monthly Environment Monitoring Report. WCPL will retain a copy of the Community Complaints Register for at least four years. The E&C Manager will ensure the latest Community Complaints Register is posted on the WCPL website.



## 8.0 Review and Reporting

### 8.1 Review

The performance of the noise monitoring and management strategies outlined in the NMP is to be reviewed annually by the E&C Manager. A complete review of the NMP will occur:

- .Every two years;
- When there are changes to consent or licence conditions relating to noise management or monitoring following a Modification of the Development Consent;
- Following significant noise related incidents at WCPL;
- Following the submission of an Annual Review;
- Following an independent environmental audit under Consent Condition 6, Schedule 6 which requires NMP review; or
- If there is a relevant change in technology, practice or legislation.

The revised NMP will be re-submitted to the Secretary for approval as required by Condition D7 of DA 305-7-2003.

### 8.2 Annual Review

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

- 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
- Include a comprehensive review of the monitoring results and complaints records of the Mine 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 EA;
- Identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance
- Identify any trends in the monitoring data over the life of the Project
- Identify any discrepancies between the predicted and actual impacts of the Project, and analyse the potential cause of any significant discrepancies; and
- Describe what measures will be implemented over the next year to improve the environmental performance of the Project.

A copy of the Annual Review will be forwarded to relevant government agencies.

### 8.3 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 529 reporting period.

An annual noise compliance assessment report, prepared by an appropriately qualified acoustic consultant, will be submitted with the Annual Return. The report will include an assessment of any exceedance of noise limits and justification that the noise monitoring points identified in Condition P1.4 of EPL 529 are still representative of the sensitive receivers within the noise monitoring groups (identified in Condition L5 of EPL 529).

The Annual Return for the reporting period will be supplied to the EPA no 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.

## 8.4 Website Updates

A comprehensive summary of monitoring results will be made publicly available at WCPL website:

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

As required by Schedule 2, Condition D15 of DA305-7-2003, information on the website will be updated regularly. Information made available on the website will include:

- the documents listed in condition A2(c) of DA305-7-2003;
- all current statutory approvals for the development;
- all approved strategies, plans and programs required under the conditions of this consent;
- detailed plans for the Phases of the development;
- minutes of CCC meetings;
- regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved 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 summary of the current phase and progress of the development;
- contact details to enquire about the development or to make a complaint;
- a complaints register, updated monthly;
- the Annual Reviews of the development;
- audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report; and
- any other matter required by the Planning Secretary.

WCPL has made provision on its website for email comments/ enquiries by members of the community. Email enquiries can be made at [WamboCommunity@peabodyenergy.com](mailto:WamboCommunity@peabodyenergy.com).



### **8.5 Reportable Environmental Incidents**

For the purposes of this NMP, a noise incident is defined as an exceedance of a noise criterion in DA305-7-2003 by WCPL, during monthly attended noise monitoring.

In accordance with Conditions C5 and C6 of DA305-7-2003, in the event an exceedance of any noise impact assessment criteria is identified through attended noise monitoring, WCPL will notify DPIE, any affected landowners and/or existing or prospective tenants (including tenants of mine owned properties) and the CCC accordingly, and provide regular monitoring results to each of these parties until the results show that the operation is in compliance with the relevant criteria.

### **8.6 Community Consultative Committee (CCC) Briefings**

In accordance with, Condition A20 of DA305-7-2003, WCPL will operate a Community Consultative Committee (CCC) for the site. This CCC has been combined with the UWJV CCC. WCPL will provide summary reports and specific briefings at CCC meetings on issues arising from noise monitoring, as and when required.

## 9.0 Responsibilities

**Table 9** below summarises responsibilities documented in the NMP. Responsibilities may be delegated as required.

**Table 9: NMP Responsibilities**

No	Task	Responsibility	Timing
1	Coordinate noise monitoring program in accordance with <b>Section 5.0</b>	Senior Environmental Advisor	Ongoing
2	Assess noise monitoring data against relevant criteria outlined in <b>Section 3.1</b>	E&C Manager	Ongoing
3	Manage exceedances of noise criteria in accordance with the protocol outlined in <b>Section 6.1</b>	E&C Manager	As required
4	Implement the noise management measures detailed in <b>Section 4.0</b>	Various	As required
5	Respond to noise complaints in accordance with <b>Section 7.0</b>	E&C Manager	As required
6	Organise for independent reviews of noise impacts at private dwellings as required.	E&C Manager	As requested by landowners
7	Ensure Annual Review includes noise monitoring results, complaints, mitigation measures undertaken and a review of the monitoring undertaken	E&C Manager	Annually
8	Arrange regulator review of the NMP	E&C Manager	As required
9	Update the Wambo website to ensure noise monitoring information is up to date	E&C Manager	Monthly

## 10.0 References

- Development Consent (DA 305-7-2003).
- Development Consent (DA 177-8-2004).
- Environment Protection Authority (2000) NSW Industrial Noise Policy.
- Environment Protection Authority (2017) Noise Policy for Industry
- Environment Protection Licence (529).
- Environmental Planning and Assessment Act 1979.
- Downey, Gordon and Parnell, Jeffrey (2017) Assessing low frequency noise from industry – a practical approach. 12<sup>th</sup> ICBEN Congress on Noise as a Public Health Problem.
- Protection of the Environment Operations Act 1997.
- Protection of the Environment Operations (General) Regulation 2009.
- Resource Strategies Pty Ltd (2003) Wambo Coal Mine Project Environmental Impact Statement. Report prepared for Wambo Coal Pty Ltd.
- Richard Heggie and Associates Pty Ltd (2003) Wambo Coal Project Construction, Operation and Transportation Noise and Blasting Impact Assessment RHA Report 10-2470-R1 Revision 2.

## **APPENDIX A: NMP Statutory Requirements**

Approval	Condition	Requirement	Section																																							
DA305-7-2003	A22	<p><b>Evidence of Consultation</b></p> <p>Where conditions of this consent require consultation with an identified party, the Applicant must:</p> <ul style="list-style-type: none"> <li>(a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval; and</li> <li>(b) provide details of the consultation undertaken to the Planning Secretary, including:               <ul style="list-style-type: none"> <li>(i) the outcome of that consultation, matters resolved and unresolved; and</li> <li>(ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.</li> </ul> </li> </ul>	1.5 and Appendix B																																							
	A32	<p><b>Compliance</b></p> <p>The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.</p>	4.1.2 and 4.5																																							
	B13	<p>During Phase 2 and Phase 3, the Applicant must ensure that the noise generated by the Wambo Mining Complex does not exceed the criteria in Table 4 at any residence<sup>a</sup> on privately-owned land.</p> <p><b>Table 4: Operational noise criteria dB(A) for Phase 2 and Phase 3</b></p> <table border="1"> <thead> <tr> <th>Noise Assessment Area</th> <th>Noise Assessment Location</th> <th>Day <i>L<sub>Aeq</sub> (15 min)</i></th> <th>Evening <i>L<sub>Aeq</sub> (15 min)</i></th> <th>Night <i>L<sub>Aeq</sub> (15 min)</i></th> <th>Night <i>L<sub>A1</sub> (1 min)</i></th> </tr> </thead> <tbody> <tr> <td rowspan="2">Area 1 - North Bulga</td> <td>R007</td> <td>37</td> <td>37</td> <td>37</td> <td>47</td> </tr> <tr> <td>All other privately-owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td rowspan="2">Area 2 - South Wambo</td> <td>R025</td> <td>39</td> <td>39</td> <td>39</td> <td>49</td> </tr> <tr> <td>All other privately-owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>Area 3 - Warkworth Village</td> <td>All other privately-owned residences</td> <td>44</td> <td>44</td> <td>43</td> <td>53</td> </tr> <tr> <td>All other areas</td> <td>All privately-owned residences</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> </tbody> </table> <p><sup>a</sup> The Noise Assessment Areas referred to in Table 4 are shown in Appendix 4.</p>	Noise Assessment Area	Noise Assessment Location	Day <i>L<sub>Aeq</sub> (15 min)</i>	Evening <i>L<sub>Aeq</sub> (15 min)</i>	Night <i>L<sub>Aeq</sub> (15 min)</i>	Night <i>L<sub>A1</sub> (1 min)</i>	Area 1 - North Bulga	R007	37	37	37	47	All other privately-owned residences	35	35	35	45	Area 2 - South Wambo	R025	39	39	39	49	All other privately-owned residences	35	35	35	45	Area 3 - Warkworth Village	All other privately-owned residences	44	44	43	53	All other areas	All privately-owned residences	35	35	35	45
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B14		Noise generated by the Wambo Mining Complex must be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the <i>NSW Industrial Noise Policy</i> (EPA, 2000). Appendix 5 of this consent sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.	5.0																													
B15		The noise criteria in Table 3 and Table 4 do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.	Noted																													
B16		<p><b>Noise Operating Conditions</b> The Applicant must:</p> <p>(a) take all reasonable steps to minimise all noise from construction and operational activities, including low frequency and other audible characteristics, as well as road noise associated with the development;</p> <p>(b) monitor and record all major equipment use and make this data readily available at the request of the Department or the EPA;</p> <p>(c) operate a noise management system commensurate with the risk of impact to ensure compliance with the relevant conditions of this consent;</p> <p>(d) take all reasonable steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions when the noise criteria in this consent do not apply (see Appendix 5); and</p> <p>(e) carry out regular attended noise monitoring (at least once a month, unless otherwise agreed by the Planning Secretary) to determine whether the development is complying with the relevant conditions of this consent.</p>	4.1 and 4.2 4.1 – 4.3 6.4 5.1																													
B17		<p><b>Noise Management Plan</b> The Applicant must prepare a Noise Management Plan for the Wambo Mining Complex to the satisfaction of the Planning Secretary. This plan must:</p> <p>(a) be prepared by a suitably qualified and experienced person/s;</p> <p>(b) be prepared in consultation with the EPA;</p> <p>(c) describe the measures to be implemented to ensure:</p> <p>(i) compliance with the noise criteria and operating conditions in this consent;</p> <p>(ii) best practice management is being employed; and</p> <p>(iii) noise impacts of the development are minimised during noise-enhancing meteorological conditions under which the noise criteria in this consent do not apply (see Appendix 5);</p>	1.5 6.1 4.1.2, 4.4 and 6.4 4.2.1																													

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		(d) seek to minimise road traffic noise generated by employee commuter vehicles on public roads;	4.1.2 and 4.5				
		(e) describe the noise management system in detail; and	3.3 and 5.0				
		(f) include a monitoring program that:	5.0				
		(i) uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the development;	4.3				
		(ii) includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time;	5.0				
		(iii) adequately supports the noise management system; and	6.1 and Appendix C				
		(iv) includes a protocol for distinguishing noise emissions between the Wambo Mining Complex and United Wambo open cut coal mine; and	6.2 and 8.5				
		(v) includes a protocol for identifying any noise-related exceedance, incident or non-compliance and for notifying the Department and relevant stakeholders of any such event.					
B18		The Applicant must not commence Phase 2 until the Noise Management Plan is approved by the Planning Secretary.	Noted				
B19		The Applicant must implement the Noise Management Plan as approved by the Planning Secretary.	Noted				
C2		<p><b>Additional Mitigation Upon Request</b></p> <p>Upon receiving a written request from the owner of any residence on the privately-owned land<sup>a</sup> listed in Table 11 or Table 12, the Applicant must implement additional mitigation measures at or in the vicinity of the residence in consultation with the landowner. These measures must be consistent with the measures outlined in the <i>Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments</i> (NSW Government, 2018). They must also be reasonable and feasible, proportionate to the level of predicted impact and directed towards reducing the relevant noise and/or air quality impacts of the development. The Applicant must also be responsible for the reasonable costs of ongoing maintenance of these additional mitigation measures until the cessation of mining operations.</p> <p><i>Table 12: Land subject to additional mitigation upon request</i></p> <table border="1" data-bbox="436 1060 1331 1146"> <thead> <tr> <th>Mitigation Basis</th> <th>Land</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td>R025</td> </tr> </tbody> </table> <p><sup>a</sup> The locations of the land referred to in Table 12 is shown in Appendix 4.</p>	Mitigation Basis	Land	Noise	R025	3.3
Mitigation Basis	Land						
Noise	R025						
C3		If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution.	Noted				
C5		<p><b>Notification of Exceedances</b></p> <p>As soon as practicable and no longer than 7 days after obtaining monitoring results showing an exceedance of any noise, blasting or air quality criterion in PART B of this consent, the Applicant must provide the details of the exceedance to any affected landowners, tenants and the CCC.</p>	8.5				



Approval	Condition	Requirement	Section
	C6	For any exceedance of any air quality criterion in PART B of this consent, the Applicant must also provide to any affected land owners and tenants a copy of the NSW Health fact sheet entitled "Mine Dust and You" (NSW Health, 2017).	8.5
	D4	<p><b>Adaptive Management</b></p> <p>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and performance measures in this consent. Any exceedance of these criteria or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&amp;A Act or EP&amp;A Regulation.</p> <p>Where any exceedance of these criteria or performance measures has occurred, the Applicant must, at the earliest opportunity:</p> <p>(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;</p> <p>(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</p> <p>(c) implement reasonable remediation measures as directed by the Planning Secretary.</p>	6.4
	D5	<p><b>Management Plan Requirements</b></p> <p>Management plans required under this consent must be prepared in accordance with relevant guidelines, and include where relevant:</p> <p>(a) summary of relevant background or baseline data;</p> <p>(b) details of:</p> <p>(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);</p> <p>(ii) any relevant limits or performance measures and criteria; and</p> <p>(iii) the specific indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;</p> <p>(c) any relevant commitments or recommendations identified in the documents listed in condition A2(c);</p> <p>(d) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;</p> <p>(e) a program to monitor and report on the:</p> <p>(i) impacts and environmental performance of the development; and</p> <p>(ii) effectiveness of the management measures set out pursuant to paragraph (d);</p> <p>(f) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;</p> <p>(g) a program to investigate and implement ways to improve the environmental performance of the development over time;</p> <p>(h) a protocol for managing and reporting any:</p> <p>(i) incident, non-compliance or exceedance of any impact assessment criterion and performance criterion);</p> <p>(ii) complaint; or</p> <p>(iii) failure to comply with other statutory requirements; and</p> <p>(i) a protocol for periodic review of the plan.</p> <p><b>Note:</b> <i>The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	<p>1.4 and 2.0</p> <p>3.0</p> <p>3.0 and 8.5</p> <p>4.1</p> <p>4.0</p> <p>5.0 and 8.2</p> <p>5.0 and 8.2 to 8.6</p> <p>6.4.1</p> <p>8.2</p> <p>8.5</p> <p>7.0</p> <p>8.5</p> <p>8.1</p>

Approval	Condition	Requirement	Section
	D6	<p><b>Revision of Strategies, Plans and Programs</b>            Within three months of:</p> <ul style="list-style-type: none"> <li>(a) the submission of an incident report under condition D8;</li> <li>(b) the submission of an Annual Review under condition D10;</li> <li>(c) the submission of an Independent Environmental Audit under condition D11; or</li> <li>(d) the approval of any modification (excluding Modification 16) of the conditions of this consent, the suitability of existing strategies, plans and programs required under this consent must be reviewed by the Applicant.</li> </ul>	8.1
	D7	<p>If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.</p> <p><i>Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.</i></p>	Noted
	D15	<p><b>ACCESS TO INFORMATION</b></p> <p>Within three months of the determination of Modification 16, until the completion of all rehabilitation required under this consent, the Applicant must:</p> <ul style="list-style-type: none"> <li>(a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website:               <ul style="list-style-type: none"> <li>(i) the documents listed in condition A2(c);</li> <li>(ii) all current statutory approvals for the development;</li> <li>(iii) all approved strategies, plans and programs required under the conditions of this consent;</li> <li>(iv) detailed plans for the Phases of the development;</li> <li>(v) minutes of CCC meetings;</li> <li>(vi) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;</li> <li>(vii) 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;</li> <li>(viii) a summary of the current phase and progress of the development;</li> <li>(ix) contact details to enquire about the development or to make a complaint;</li> <li>(x) a complaints register, updated monthly;</li> <li>(xi) the Annual Reviews of the development;</li> <li>(xii) audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report; and</li> <li>(xiii) any other matter required by the Planning Secretary; and</li> </ul> </li> <li>(b) keep such information up to date, to the satisfaction of the Planning Secretary.</li> </ul>	8.4
<b>DA 177-8-2004</b>	B1	<p><b>Noise Operating Conditions</b></p> <p>The Applicant must:</p> <ul style="list-style-type: none"> <li>(a) take all reasonable steps to minimise all noise associated with the development, including during noise-enhancing meteorological conditions;</li> </ul>	6.4

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		(b) operate a noise management system commensurate with the risk of impact to ensure compliance with the relevant conditions of this consent;	4.1 to 4.5																																																											
		(c) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL and use reasonable endeavours to ensure that rolling stock is selected to minimise noise;	4.1.3																																																											
		(d) use all reasonable efforts to co-ordinate noise management on the site with the noise management at Wambo mine; and	4.6.3 and 5.4																																																											
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EPL 529	P1 Location of monitoring/discharge points and areas	<p><b>P1.3</b> The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.</p> <p>Noise/Weather</p> <table border="1"> <thead> <tr> <th>EPA ID No</th> <th>Type of Monitoring Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>17</td> <td>Meteorological Station – to determine meteorological conditions for noise monitoring</td> <td>'EPA17' at 312535, 6393111 (Easting, Northing)</td> </tr> <tr> <td>20</td> <td>Noise Monitoring</td> <td>'N16' for NMG1 at 306000, 6399785 (Easting, Northing)</td> </tr> <tr> <td>21</td> <td>Noise Monitoring</td> <td>'N20A' for NMG2 at 304461, 6398713 (Easting, Northing)</td> </tr> <tr> <td>22</td> <td>Noise Monitoring</td> <td>'N21' for NMG3 at 310491, 6390223 (Easting, Northing)</td> </tr> <tr> <td>23</td> <td>Noise Monitoring</td> <td>'N26' for NMG4 at 304172, 6398160 (Easting, Northing)</td> </tr> </tbody> </table>	EPA ID No	Type of Monitoring Point	Location Description	17	Meteorological Station – to determine meteorological conditions for noise monitoring	'EPA17' at 312535, 6393111 (Easting, Northing)	20	Noise Monitoring	'N16' for NMG1 at 306000, 6399785 (Easting, Northing)	21	Noise Monitoring	'N20A' for NMG2 at 304461, 6398713 (Easting, Northing)	22	Noise Monitoring	'N21' for NMG3 at 310491, 6390223 (Easting, Northing)	23	Noise Monitoring	'N26' for NMG4 at 304172, 6398160 (Easting, Northing)	5.1																																									
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		<p>Note: For the purposes of Condition P1.1, P1.2 and P1.3 monitoring point location map is available at condition A2.2. (EPA reference: DOC21/818486).</p> <p>For the purposes of noise conditions at P1.3, 'NMG' refers to 'Noise Monitoring Groups' which are defined in the document titled 'Wambo Coal Mine Noise Monitoring Groups- Noise Modelling Evaluation' dated 16 August 2019. (EPA reference: DOC19/704212).</p>	-																																																											
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	L5 Noise Limits	<p><b>L5.1</b> Noise generated at the premises must not exceed the noise limits presented in the table below. The noise limits in the table below represent the noise contribution from the premises.</p> <p>Noise Limits dB(A)</p> <table border="1"> <thead> <tr> <th rowspan="2">Receiver Land Number</th> <th>Day</th> <th>Evening</th> <th>Night</th> <th>Night</th> </tr> <tr> <th>L<sub>Aeq</sub> (15 minute)</th> <th>L<sub>Aeq</sub> (15 minute)</th> <th>L<sub>Aeq</sub> (15 minute)</th> <th>L<sub>A1</sub> (1 minute)</th> </tr> </thead> <tbody> <tr> <td>EPA Point 20 in NMG1</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>EPA Point 21 in NMG2</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>EPA Point 22 in NMG2</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>EPA Point 23 in NMG4</td> <td>38</td> <td>38</td> <td>38</td> <td>50</td> </tr> <tr> <td>Residence 19</td> <td>59</td> <td>59</td> <td>59</td> <td>-</td> </tr> <tr> <td>Residence 003 and 025 in NMG3</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>Residence 016 and 039 in NMG1</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>Residence 029, 042 and 345 in NMG4</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>Residence 033 and 320 in NMG2</td> <td>40</td> <td>40</td> <td>40</td> <td>50</td> </tr> <tr> <td>Residence 006 and 007 in NMG3</td> <td>39</td> <td>39</td> <td>39</td> <td>50</td> </tr> </tbody> </table>	Receiver Land Number	Day	Evening	Night	Night	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>A1</sub> (1 minute)	EPA Point 20 in NMG1	40	40	40	50	EPA Point 21 in NMG2	40	40	40	50	EPA Point 22 in NMG2	40	40	40	50	EPA Point 23 in NMG4	38	38	38	50	Residence 19	59	59	59	-	Residence 003 and 025 in NMG3	40	40	40	50	Residence 016 and 039 in NMG1	40	40	40	50	Residence 029, 042 and 345 in NMG4	40	40	40	50	Residence 033 and 320 in NMG2	40	40	40	50	Residence 006 and 007 in NMG3	39	39	39	50	3.1
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		<p><b>L5.2</b> For the purpose of Condition L5.1:</p> <p>a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays,</p> <p>b) Evening is defined as the period from 6pm to 10pm</p> <p>c) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays</p>	3.1																																			
		<p><b>L5.3</b> The noise limits set out in condition L5.1 apply under all meteorological conditions except for the following:</p> <p>a) Wind speeds greater than 3 metres/second at 10 metres above the ground level; or</p> <p>b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above the ground; or</p> <p>c) Stability category G temperature inversion conditions.</p>	3.1																																			
		<p><b>L5.4</b> For the purposes of Condition L5.5:</p> <p>a) Data recorded by the closest and most representative meteorological station installed on the premises at EPA Identification Point 17 must be used to determine meteorological conditions; and</p> <p>b) Temperature inversion conditions (stability category) are to be determined by the methods referred to in Fact Sheet D of the Noise Policy for Industry (2017).</p>	6.1																																			
	M19 Noise monitoring	<p><b>M9.1</b> To assess compliance with the noise limits specified within this licence, the licensee must undertake operator attended noise monitoring at each specified noise monitoring point in accordance with the table below.</p> <p>Point 20, 21, 22, 23</p> <table border="1"> <thead> <tr> <th>Assessment period</th> <th>Minimum frequency in a reporting period</th> <th>Minimum duration within assessment period</th> <th>Minimum number of assessment period</th> </tr> </thead> <tbody> <tr> <td><i>Night</i></td> <td><i>Monthly</i></td> <td><i>15 minutes</i></td> <td><i>1 operation day</i></td> </tr> </tbody> </table>	Assessment period	Minimum frequency in a reporting period	Minimum duration within assessment period	Minimum number of assessment period	<i>Night</i>	<i>Monthly</i>	<i>15 minutes</i>	<i>1 operation day</i>	5.1																											
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		<p><b>M9.2</b> To assess compliance with condition L5.1, attended noise monitoring must be undertaken in accordance with Conditions L5.4 to L5.6:</p> <p>a) at the EPA points 20,21,23 and 23 identified in P1.3;</p> <p>b) occur every calendar month in a reporting period; and</p>	5.1																																			

Approval	Condition	Requirement	Section
		c) occur during one night time period as defined in the Noise Policy for Industry 2017 for a minimum of 15 minutes at each location from a), and when relevant b) during the night.	
		<p><b>M9.3.3</b> For the purposes of compliance monitoring and determining the noise generated at the premises the modification factors in the EPA's Fact Sheet C of the Noise Policy for Industry (2017) must be applied, as appropriate, to the noise levels measured by noise monitoring equipment.</p> <p><i>Definitions</i></p> <p>Noise refers to 'sound pressure levels' for the purpose of conditions L5.1 to L5.6 and condition M10.</p>	Noted
	R4 Other Notifications	<p><b>R4.3 Noise Exceedance Reporting</b></p> <p>The licensee must report any exceedance of licence noise limits to the EPA by telephoning the Environment Line service on 131 555 soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.</p> <p><b>R4.4</b> Within seven days of notifying the EPA of an exceedance of Licence noise limits, the Licensee must provide the EPA a report in writing that explains the cause of the exceedance and the actions taken to prevent future exceedances of noise limits.</p> <p><b>R4.5</b> An authorised officer of the EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the Licensee at Condition R4.6. The Licensee must provide such further details to the EPA within the time specified in the request.</p>	8.5   Noted  Noted
	R5 Other Reporting Conditions	<p><b>R5.5 Noise Compliance Assessment Report</b></p> <p>A report containing the monitoring results of noise compliance monitoring specified in this Licence must be submitted annually with the Annual Return. The report must include, for each monitoring period and monitoring location:</p> <p>a) the contribution noise level from the premises as measured or determined at the monitoring location (s);</p> <p>and</p> <p>b) a description of the method used to determine or estimate the contribution noise level from the premises that is consistent with the Noise Policy for Industry.</p>	8.3

## **APPENDIX B: Evidence of Consultation**

Peter Jaeger  
Manager – Environment and Community  
Wambo Coal Pty Limited  
100 Melbourne Street  
South Brisbane QLD 4101

05/12/2023

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**Subject: Approval of Noise Management Plan**

Dear Mr Jaeger

I refer to the revised Noise Management Plan submitted in accordance with Condition B17 of Schedule 2 of the development consent for the Wambo Coal Mine (DA305-7-2003-i).

The Department has carefully reviewed the document and is satisfied that it meets the requirements of the relevant conditions in DA305-7-2003-i, noting the changes were mostly focused on updating the plan to reflect the latest landownership information.

Accordingly, as nominee of the Planning Secretary, I approve the revised Noise Management Plan (version 12, dated July 2023).

You are reminded that if there are any inconsistencies between the Noise Management Plan and the conditions of approval, the conditions prevail.

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 me on (02) 4908 8696.

Yours sincerely



**Joe Fittell**  
**Team Leader**  
**Resource Assessments**  
As nominee of the Planning Secretary

DPIE Comments (Version 10) Provided 13 November 2020	WCPL Response and where addressed in NMP
<p>Include the United Wambo Protocol for determining noise contributions from the two separate sites during attended monitoring (i.e Compliance Assessment Methodology).</p>	<p>A detailed Compliance Assessment Methodology has been developed to determine the individual noise contributions of the separate United Wambo and Wambo operations. The detailed methodology is included in <b>Appendix C</b>.</p>
<p><b>DPIE Comments (Version 10) Provided 30 October 2020</b></p>	
<p>The table in Appendix A states that information regarding condition B17(c) can be found in Section 3.3 of the NMP. This reference is incorrect as Section 3.3 refers to mitigation on request. Please insert reference to the correct section.</p>	<p>Complete, section references changed to 6.1, 4.1.2, 4.4 and 6.4</p>
<p>There is a reference error in the table in Appendix A for condition B17(f)(ii). Please amend.</p>	<p>Section reference added for Section 4.3 Additional information added to Section 4.3 – United Wambo will compare real time noise monitoring results to attended monitoring results quarterly. The process will involve comparing night time 15-minute compliance noise survey data obtained at or near each of the real time monitoring.</p>
<p>Please provide more information on the "suitable methods" alluded to in Section 6.1 that are to be employed to determine noise sources during monitoring to satisfy condition B17(f)(iv).</p>	<p>Complete, additional detail added to Section 6.1 around differentiating the noise contributions such that a result for Wambo only is determined.</p>
<p>Please add reference to Section 6.2 in the table in Appendix A regarding condition B17(f)(v).</p>	<p>Complete</p>
<p>Section 3.2 is missing an acquisition date, and instead has XXXX. Please amend.</p>	<p>Complete, property acquired 15 May 2019</p>
<p>Condition D4 is not satisfied. Section 6.4.1 states that the site will not be notified of exceedances during attended monitoring. This means that the exceedance may not cease, may recur, and no action can be taken in response. Please amend.</p> <p>The table in Appendix A states that information regarding conditions D5(a) and (b) can be found in section 1.4. This information is also located in section 2. Please add reference to section 2 into the table.</p>	<p>Section 6.4.1 Amended - Site is notified of potential exceedances during the attended monitoring. This enables operational changes to be made to ensure that the cause of the potential exceedance is identified and does not recur. There is no formal correspondence to site on the night of the monitoring. Formal correspondence of an exceedance is received following validation of the meteorological conditions.</p> <p>Reference added as suggested</p>
<p>The table in Appendix A states that information regarding conditions D5(c) and (d) can be found in section 3.3. This reference is incorrect as section 3.3 refers to mitigation on request. Please amend reference.</p>	<p>Complete, reference to Section 4.0 Mitigation and Management measures added</p>
<p>Condition D6(d) is not satisfied. Please add reference to modifications in section 8.1 as a trigger for review of the NMP</p>	<p>Complete, reference to Modification added</p>



There is an incorrect reference to a condition in the table in Appendix A. The condition regarding access to information is listed as "S6, C12". The correct condition is D15. Please amend	Complete
Condition D15(iv) is not satisfied. There is no reference made in section 8.4 to provision of detailed plans for the Phases of the development. Please amend	Section 8.4 has been updated to include all requirements listed in Condition D15 (i) to (xiii)
Condition D15(vi) is not satisfied. There is no reference made in section 8.4 to provision of regular reporting on environmental performance. Please amend.	
Condition D15(vii) is not satisfied. There is no reference made in section 8.4 to provision of monitoring results. Please amend.	
Condition D15(viii) is not satisfied. There is no reference made in section 8.4 to provision of a summary of the current Phase of the development. Please amend.	
Condition D15(ix) is not satisfied. There is no reference made in section 8.4 to provision of contact details for enquiries and complaints. Please amend.	
The second dot point in section 4.5 states "driving respectfully" instead of "driving respectfully". Please amend.	Amended
Conditions C5 and C6 are not included in the table in Appendix A, however are referred to in section 8.5. Please include in the table.	Amended, C5 and C6 added to Appendix A
The table in Appendix A states that information regarding conditions B1(a) and (b) of DA177-8-2004 can be found in section 3.3. This reference is incorrect as section 3.3 refers to mitigation on request. Please amend reference.	Reference to Sections 4.1 to 4.2 added.

#### Comments on Previous versions of the NMP

Date	Stakeholder	Consultation Method	Consultation Undertaken/Matter Raised	How addressed in this NMP
27 March 2014	DPIE	-	NMP Version 6 approved by DPIE.	N/A
Sept 2017	DPIE and EPA	-	NMP Version 7 provided to DPIE and EPA for comment. Comments were received from DPIE and addressed in Version 8 – see below. The EPA declined to comment.	See below
8 Jan 2018	DPI&E	Email	1. In Table 1 (pg 1) please update the life of mine to reflect the different cessation dates of the underground and open cut operations.	Table 1 updated to reflect the different cessation dates of the underground and open cut operations.
			2. In late October 2017 <i>the Noise Policy for Industry</i> was introduced. There are transitional arrangements in place and for now the NSW Industrial Noise Policy (2000) continues to apply to the Wambo Complex with the exception of the INP Section 4 modifying factors (i.e. low frequency noise). Please review all discussion of low frequency noise and update to reflect	Section 1.4 updated to reflect changes to policies for industrial noise. Sections 5.3 and 6.1 updated to reflect changes to attended noise monitoring requirements.

Date	Stakeholder	Consultation Method	Consultation Undertaken/Matter Raised	How addressed in this NMP
			the approach discussed in Fact Sheet C of the <i>Noise Policy for Industry 2017</i> .	
			3. Imprecise language used in the plan such as “where possible”, “regular” and “appropriate” must be replaced by specific commitments and actions.	Imprecise language has been reviewed and replaced as required.
			4. There are a couple referencing errors/typos on pages 12 and 18.	Errors on pages 12 and 18 have been rectified.
			5. I note that while condition 4 of Schedule 6 is listed in Appendix A, however conditions 6, 12 and 13 are also relevant to the Noise Management Plan. Please include these conditions and ensure they are addressed in the relevant sections of the Noise Management Plan.	Conditions 6, 12 and 13 of Schedule 6 have been included in Appendix A and relevant sections of the NMP have been revised to address these conditions.
17 Jan 2018	DP&IE	Telephone and Email	Submission and approval of the Wambo Noise Management Plan given the recent approval of Wambo Mod 17: <u>Option A:</u> Continue with the review/approval of Revision 8 of the Wambo Noise Management Plan, and review/submit a revision by 20 March 2018 to accommodate changes as a result of Mod 17. <u>Option B:</u> Submit a revised Wambo Noise Management Plan that incorporates a review/update as a result of Mod 17.	Option B: WCPL has reviewed/revised the NMP to ensure it addresses the conditions of the recently modified DA305-7-2003 (MOD17). All relevant DA conditions are included in Appendix A and addressed in this version of the NMP.
30 March 2020	DPIE	-	NMP Version 9 approved by DPIE.	N/A

## **APPENDIX C: Noise Compliance Assessment Methodology**

# Appendix C - Noise Compliance Assessment Methodology

Noise Management Plan - Attended Noise Monitoring			
<b>Section 1 - Monitoring Results</b>		Date: <input type="text"/>	Time: <input type="text"/>
Name: <input type="text"/>	Location: <input type="text"/>	Period: <input type="text"/>	
Microphone height: <input type="text"/>	Distances building facade: <input type="text"/>		
Noise meter calibration: <input type="text"/>	/property boundary: <input type="text"/>		
<b>Meteorological data:</b>			
Temperature: <input type="text"/>	Wind Speed: <input type="text"/> at <input type="text"/> m	Wind Dir.: <input type="text"/> at <input type="text"/> m	Humidity: <input type="text"/>
Cloud cover: <input type="text"/> /8ths	Fog: <input type="text"/>	Temp Inv.: <input type="text"/>	Rain: <input type="text"/>
<b>Measured Noise Levels</b>			
LAeq,15min: <input type="text"/>	LA90,15min: <input type="text"/>	LA10,15min: <input type="text"/>	
L Amin,15min: <input type="text"/>	L Amax,15min: <input type="text"/>	LA1,15min: <input type="text"/>	
LCeq,15min: <input type="text"/>	Estimated Cwt - At for mine noise: <input type="text"/>	Penalty: <input type="text"/>	
Estimated noise level from the Project and Wambo Mine (ink penalty): <input type="text"/>			LAeq,15min

Section 2 - Assessment Protocol			
<b>Q1. Is the estimated noise Level from the Project and Wambo Mine:</b>			
1a. Greater than the Project criterion?	LAeq,15min: <input type="text"/>	Criterion	<input type="text"/> Yes / No
1b. Greater than the Wambo Mine criterion?	LAeq,15min: <input type="text"/>	Criterion	<input type="text"/> Yes / No
<b>NO for both operation =&gt; Both operations are compliant with respective criterion, no further action</b>			
<b>YES for one operation =&gt; Review 'Operational Status Checklist' for Operation with lower criterion</b>			
<b>YES for both operations =&gt; Review 'Operational Status Checklist' for both Operations and go to Q2</b>			
<b>Q2. Is the estimated noise level from Project and Wambo Mine greater than the summation of the Project and Wambo Mine criteria?</b>			
	Summation of LAeq,15min Criteria: <input type="text"/>		<input type="text"/> Yes / No
<b>If YES Q2 =&gt; at least one of the operations is non-compliant with respective criteria. Actions to be implemented:</b>			
- Inform operations of potential non-compliance			
- Confirm 'Operational Status Checklist' with both operations			
- Relocate to an intermediate location to observe dominant noise sources			
- If required, request strategic relocation of shutdown of observed dominant noise sources			
- Re-monitor within 75 minutes			

Section 3 - Statement of Compliance			
<b>Contribution from the Project</b>			
LAeq,15min: <input type="text"/>	Observed sources:	<input style="width: 100%; height: 40px;" type="text"/>	
Criterion: <input type="text"/>			
LA1,1min: <input type="text"/>	Observed sources:	<input style="width: 100%; height: 40px;" type="text"/>	
Criterion: <input type="text"/>			
<b>Project Compliant with:</b>		LAeq,15min: <input type="text"/> Yes / No	
		LA1,1min: <input type="text"/> Yes / No	
<b>Contribution from Wambo Mine (CHPP, train loading facility and underground mine)</b>			
LAeq,15min: <input type="text"/>	Observed sources:	<input style="width: 100%; height: 40px;" type="text"/>	
Criterion: <input type="text"/>			
LA1,1min: <input type="text"/>	Observed sources:	<input style="width: 100%; height: 40px;" type="text"/>	
Criterion: <input type="text"/>			

### Operational Status Checklist

**Operational Status Wambo Mine**

Operating

Equipment Description	Activity	approx 2019	approx 2023	approx 2028		
CHPP	Running	1	1	1		Year _____
Train Loading Facility	Train Loading	1	1	1		Running Yes/No
South Bates U/G	Ventilation	1	-	-		Running Yes/No
	Mining	1	-	-		Running Yes/No
	Coal Trucks	4	-	-		No. _____
South Wambo U/G	Ventilation	-	1	1		Running Yes/No
	Mining	1	-	-		Running Yes/No
	Coal Trucks	-	4	4		No. _____

Is Wambo Mine operating with equipment numbers specified above?

Yes / No

If Yes, Wambo is likely to be operating within the Consent/EPL noise limits unless there is a failure in equipment noise control

If No, describe additional activities. Are there any failures of noise control measures evident?

## **APPENDIX D: NMP Summary of Commitments**

**Note: The list of commitments in this appendix is in addition to those explicitly required by Development Consent or EPL conditions.**

NMP Section	Commitment	Timing
4.1.1	Investigate the installation of acoustic barriers around work areas where required (e.g. exploration drill rigs which are located close to sensitive receivers).	Ongoing
4.1.1	Undertake an acoustical design review prior to the construction of the two most southern ventilation shafts required for the South Wambo Underground Mine and implement noise mitigation to achieve compliance with the relevant noise criteria at nearby privately-owned receivers.	When required
4.1.2	Maintenance of plant and equipment and pre-start up inspections.	Ongoing
4.1.2	Operation of all machinery and potential noise emitting plant and equipment by experienced and trained personnel.	Ongoing
4.1.2	Positioning of portable generators and/or machinery to take advantage of barriers to mitigate sound travel and/or positioned at the greatest distance from the noise-sensitive area where practical.	As required
4.1.2	Orienting equipment so that noise emissions are directed away from any sensitive areas to achieve the maximum attenuation of noise.	Ongoing
4.1.2	Where there are several noisy pieces of equipment, scheduling operations so they are used separately rather than concurrently.	As required
4.1.2 and 4.5	During site inductions, providing employees and contractors with information and training on: potential noise impacts on neighbouring residents; reporting excessive noise to WCPL management; and carrying out quiet work practices.	Ongoing
4.1.2	Providing employees and contractors with toolbox talks on slowing down when driving to and leaving site to minimise traffic noise.	As required (e.g. following a complaint or incident)
4.1.2	Conducting specific noise management training for key WCPL operational personnel.	As required
4.1.2	Non mine related construction activities will generally be undertaken between 7.00 am and 7.00 pm daily. Construction activities may occur outside these hours when WCPL is satisfied that such activities are inaudible at nearest private residences on advice from a WCPL appointed acoustic specialist.	As required
4.7	Coordinate noise management with nearby mines to reasonably and feasibly minimise cumulative noise impacts	Ongoing
4.7	Where high noise levels are observed during compliance monitoring or during the assessment of the ongoing performance of Wambo, discussions will be initiated with the relevant mining operations to inform them of the observations	As required
4.7	Where other operations are identified as being the source of the noise, either when investigating a complaint or in the response to noise alarms, notification of the noise impact to the mining operations will be made to advise them of the issue	As required
4.7	When appropriate, data will be shared between the mining operations with real time noise monitoring equipment being shared between other mining operations	Ongoing
5.2 and 6.4.1	Key operational personnel to implement the Trigger Action Response Plan (TARP) as required and in response to community complaints (received for the Wambo Mine)	Ongoing
5.1	Undertake attended noise monitoring locations at five monitoring locations (N01, N16, N20A, N21, N26).	Monthly
7.0	Respond to community complaints in accordance with the NMP procedures.	As required

