



Noise Management Plan

Table of Commitments - NMP

Commitment Ref	Commitment Description	Approval/EIS Reference	Status	MP Section
3.3.1_1	United Wambo will ensure that noise generated on the site will not exceed the criteria in Table 1 of SSD7142, at any residence on privately owned land.	SSD 7142 Condition B1 Schedule 3 Condition L3	Ongoing	1
3.3.1_2	United Wambo will measure noise generated by the development in accordance with NSW Industrial Noise Policy.	SSD 7142 Condition B2	Ongoing	1
3.3.1_3	The noise criteria in Table 1 (SSD7142) does not apply if United Wambo has an agreement with the owner/s of the relevant residence or land to exceed the noise criteria.	SSD 7142 Condition B3	Ongoing	1
3.5.1.1_1	United Wambo will engage a suitably qualified and experienced person to prepare a Noise Management Plan (NMP) for the site. The Plan will be prepared in accordance with relevant statutory requirements (including approvals and EIS commitments).	SSD 7142 Condition B5(a)	Complete	3.5.1.1
3.5.1.2_1	Condition 5 (b) of SSD 7142, requires this NMP to have been prepared in consultation with the EPA and submitted to the Planning Secretary for approval	SSD 7142 Condition B5(b)	Complete	3.5.1.2
3.5.1.3_1	United Wambo must not commence Phase 1B until the Noise Management Plan (NMP) is approved by the Planning Secretary.	SSD 7142 Condition B6	Ongoing	1
3.5.1.3_2	Prior to the commencement of Phase 2 the NMP must be revised and submitted to Planning Secretary	SSD 7142 Condition E6	Complete	3.5.1.3
3.5.1.3_3	United Wambo will update the approved NMP (as necessary), following approval of MOD1.	SSD7142 Mod 1 Preliminary Environmental Assessment - Section 4.1	Complete	3.5.1.3
3.5.2_1	United Wambo will implement the approved NMP, in accordance with relevant statutory requirements (including approvals and EIS commitments).	SSD 7142 Condition B7 SOC_8.0_Management Measures_024 SOC_RTS_A_084	Ongoing	1
3.5.2_2	During Phases 1A and 1B of the transition process Wambo and United commit to undertake all operations across the complex to meet the proposed transitional noise criteria.	SOC_PAC_Res_024	Complete	1

Commitment Ref	Commitment Description	Approval/EIS Reference	Status	MP Section
4.2.2.1_1	United Wambo will seek to achieve the predicted noise levels detailed in the EIS and SSD 7142 through the implementation of a Trigger Action Response Plan (TARP). The TARP will include an Incident Investigation and Response process. All reasonable steps will be taken to minimise the noise impacts and includes implementing the following adaptive management strategies in the case of noise enhancing meteorological conditions: • Strategic relocation or shut down of acoustically significant equipment during adverse meteorological conditions that could result in noise propagation towards sensitive receivers • Limiting the activities of ancillary equipment in exposed locations. • Progressive shut down of production machines in elevated locations.	SOC_8.0_Management Measures_025 SOC_6.6_Noise_007 SOC_6.06_Noise_014 SOC_6.09_Ecology_002 SOC_RTS_A_028 Schedule 2 Condition P1 Schedule 3 Condition L3 SOC_6.06_Noise_030 SOC_6.06_Noise_037 SOC_6.06_Noise_045S SD 7142 Condition B4 SOC_6.09_Ecology_002 SOC_6.06_Noise_015 SOC_6.06_Noise_016 SOC_6.06_Noise_017 SOC_6.06_Noise_018 SOC_6.06_Noise_019 SOC_6.06_Noise_020 SOC_6.06_Noise_021 SOC_6.06_Noise_045 SOC_RTS_A_029 SOC_RTS_A_030 SOC_RTS_A_031 SOC_PAC_Res_001	Ongoing	4.2.2.1
4.3_1	Implementation of the mitigation measures identified in Table 4 1 ensures United Wambo are taking reasonable steps to: • comply with the noise criteria and operating conditions; • employ best practice management; and • minimise noise impacts even in noise-enhancing meteorological conditions.	SSD 7142 Condition B4(a) SSD 7142 Condition B4(e) SSD 7142 Condition B5(c) SSD 7142 Condition B5(e) SOC_8.0_Management Measures_025 SOC_6.09_Ecology_002-9 SOC_PAC_Res_001	Ongoing	4.3
4.3_2	As part of the mine planning process, United Wambo will: • Design emplacement areas to create sheltered dumping locations that can be used during adverse weather conditions where feasible and practicable. • Include bunds in strategic locations along haul roads, where practicable, to shield trucks and equipment on exposed sections of the haul road ramps. • Locate key haul roads below ground surface or behind topographical features to maximise shielding to surrounding receiver areas, where practicable.	SOC_8.0_Management Measures_026-2 SOC_6.6_Noise_001-2 SOC_6.6_Noise_006-3 SOC_RTS_A_024	Ongoing	4.3

Commitment Ref	Commitment Description	Approval/EIS Reference	Status	MP Section
4.3_3	United Wambo: • Incorporate reasonable and feasible noise attenuation on key items of plant and equipment. • Regularly inspect and maintain noise attenuation systems. • Implement a process for periodic review of noise performance of the equipment fleet.	SOC_RTS_A_019 SOC_6.6_Noise_006-5 SSD 7142 Condition B4(b) SOC_8.0_Management Measures_026-1 SOC_6.6_Noise_001-3 SOC_6.6_Noise_006-1	Ongoing	4.3
4.3_4	United Wambo will implement proactive noise management controls involving the planning of activities in advance of potentially adverse conditions, through: • Implementation of a system to provide relevant personnel with a daily forecast of expected noise conditions in the vicinity of the operation • Discussion of the weather conditions and dust considerations at daily pre-shift meetings	SSD 7142 Condition B4 SOC_6.09_Ecology_002 SOC_8.0_Management Measures_028 SOC_6.06_Noise_005 SOC_6.06_Noise_032 SOC_6.06_Noise_033 SOC_6.06_Noise_034 SOC_6.06_Noise_036 SOC_6.06_Noise_039 SOC_6.06_Noise_043 SOC_6.06_Noise_044 SOC_6.06_Noise_046 SOC_6.06_Noise_047 SOC_6.06_Noise_048 SOC_RTS_A_126 SOC_6.06_Noise_025 SOC_RTS_A_035	Ongoing	4.3
4.3_5	United Wambo manage noise through correct use of plant and equipment. This includes: • Managing drop height of the first load into truck bodies to impact noise from the material. • Use 'silent horns' to communicate with trucks and smart broadband 'Quacker' reversing alarms.	SOC_8.0_Management Measures_026-3 SOC_6.6_Noise_006-2 SOC_RTS_A_027	Ongoing	4.3
4.3_6	United Wambo will seek to minimise road traffic noise by employee commuter vehicles, which is primarily achieved through staggered shift change times.	SSD 7142 Condition B5(d)	Ongoing	4.3
4.3_7	All reasonable steps will be taken to minimise the noise impacts and includes implementing the following adaptive management strategies in the case of noise enhancing meteorological conditions: • Strategic relocation or shut down of acoustically significant equipment during adverse meteorological conditions that could result in noise propagation towards sensitive receivers. • Limiting the activities of ancillary equipment in exposed locations. United Wambo will manage the drop height of the first load into truck bodies to minimise	SOC_6.6_Noise_002-3 SOC_6.6_Noise_006-4 SOC_6.6_Noise_006-4 SOC_6.6_Noise_006-4 SOC_6.6_Noise_006-4 SOC_6.6_Noise_006-4 SOC_RTS_A_028	Ongoing	4.3

Commitment Ref	Commitment Description	Approval/EIS Reference	Status	MP Section
	impact noise from the material. Progressive shut down of production machines in elevated locations. Progressive shut down of production machines in elevated locations.			
5.1_1	United Wambo will implement an appropriate continuous Noise Monitoring Program that will enable the proactive and real time management of operations during adverse noise propagating conditions. The noise monitoring program will include: - Operation of four continuous noise monitors with directional monitoring, SMS alert, continuous online data collection and audio recording capabilities. - Data collected by the continuous noise monitoring units is reviewed on a regular basis to establish any correlation between meteorological conditions and elevated noise levels, and validate the findings of the continuous noise monitors. - Data collected by the continuous noise monitoring units is reviewed to identify if the recorded noise levels are trending towards a non-compliance with site noise criteria.	SSD 7142 Condition B4 SOC_6.09_Ecology_002 SOC_8.0_Management Measures_028 SOC_6.06_Noise_005 SOC_6.06_Noise_032 SOC_6.06_Noise_033 SOC_6.06_Noise_034 SOC_6.06_Noise_036 SOC_6.06_Noise_039 SOC_6.06_Noise_043 SOC_6.06_Noise_044 SOC_6.06_Noise_046 SOC_6.06_Noise_047 SOC_6.06_Noise_048 SOC_RTS_A_126 SOC_6.06_Noise_025 SOC_RTS_A_035	Ongoing	5.1
5.1_2	United Wambo must ensure there is a compliant meteorological station operating in the vicinity of the site that collects real time data in accordance with approval commitments.	SSD 7142 Condition B37 SOC_6.06_Noise_050 Schedule 5 Condition M2.4	Ongoing	5.1
5.1_3	United Wambo will develop and implement an attended noise monitoring program as in accordance with the requirements of the relevant approvals and EIS commitments. The attended noise monitoring program be used to assess the performance of all mining machinery as a whole.	SOC_6.06_Noise_035 SOC_6.06_Noise_042 SOC_6.06_Noise_049 Schedule 5 Condition M9 Schedule 5 Condition M9	Ongoing	5.1
5.5_1	Results should be reported in accordance with the requirements of the Development Consent and EPL. A summary of the noise monitoring results should be reported in the Annual Review and submitted with the Annual return in accordance with the relevant DPE reporting guidelines.	SOC_6.06_Noise_044 Commitment 038 Commitment 040 SSD 7142 Condition B4 SOC_6.09_Ecology_002 Schedule 6 Condition R5.4	Ongoing	5.5

Commitment Ref	Commitment Description	Approval/EIS Reference	Status	MP Section
6.3_1	United Wambo will implement a NMP change management process in the following instances: • When significant changes are made to the number of equipment items or type of equipment utilised on site • Prior to the purchase or rental of equipment	SOC_6.06_Noise_038 SOC_6.06_Noise_040	Complete	6.3

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1. Purpose

The purpose of this Noise Management Plan (NMP) is to describe the management and mitigation strategies, procedures, controls and monitoring programs that will be implemented to manage noise at the United Wambo Open Cut Coal Mine (United Wambo).

2. Scope and Objectives

2.1 Scope

United Wambo is situated approximately 15 kilometres west of Singleton, near the village of Warkworth, New South Wales (**Figure 2-1**). United Wambo is a 50:50 joint venture between United Collieries Pty Limited (United) and Wambo Coal Pty Limited (Wambo). United is owned 95 per cent by Abelsore Pty Limited, a wholly owned subsidiary of Glencore Coal Pty Limited (Glencore) and five per cent by the Mining and Energy Union (MEU). Wambo is a subsidiary of Peabody Energy Australia Pty Limited.

United Wambo is managed by Glencore and has approval to extract up to 10 million tonnes per annum (mtpa) of Run of Mine (ROM) coal up until 31 August 2042. ROM coal is processed through the Wambo Coal Handling and Preparation Plant (CHPP) and transported by rail from Wambo to the Port of Newcastle for export.

This NMP applies to all activities at United Wambo, and addresses the relevant conditions of **State Significant Development Consent (SSD) 7142** and **EPL 3141**. It forms part of United Wambo's Environmental Management System (EMS) and should be read in conjunction with the **United Wambo Environmental Management Strategy (EM Strategy)**.

The NMP applies to all United Wambo employees, and contractors working for, or on behalf of, United Wambo within the project approval boundary.



Figure 2-1 Mine Location

3. Planning

3.1 Baseline Data

3.1.1 Assessment of Environmental Aspects

A comprehensive list of environmental impact assessments undertaken for United Wambo is provided in the **United Wambo Environmental Management Strategy (EM Strategy)**.

The most recent noise impact assessment (NIA) undertaken is the **United Wambo Open Cut Coal Mine Project – Noise Impact Assessment (Umwelt, 2016a)**, included as **Appendix 9 of United Wambo Open Cut Coal Mine Project – Environmental Impact Statement (EIS) (Umwelt 2016b)** and summarised in **Section 6.6 of the EIS**.

Additional noise impact assessment and information is also provided in the Project's response to requests for further information from the Department of Planning, Industry and Environment (DPIE) and responses to the Independent Planning Commission (IPC) review of the Project and requests for further information.

These documents are available at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7142

<https://www.ipcn.nsw.gov.au/projects/2018/11/united-wambo-open-cut-coal-mine-project-ssd-7142>

3.1.2 Existing Noise Environment

An assessment of the existing noise environment of the area surrounding the Project was undertaken during the preparation of the **United Wambo Open Cut Coal Mine Project – Environmental Impact Statement (EIS) (Umwelt 2016)**. The background assessment utilised monitoring data from:

- the existing Wambo continuous noise monitoring network (Sentinex 15, 16, 17 and 18);
- an additional mobile continuous noise monitor (Sentinex 122);
- the Hunter Valley Operations (HVO) continuous noise monitor in Mason Dieu; and
- four supplementary noise loggers.

The locations of the monitoring sites are shown on . The noise monitoring locations were representative of the nearest and/or most potentially affected residences surrounding the project area.

A summary of the baseline noise monitoring results, as presented in Section 4 of the **United Wambo Open Cut Coal Mine Project – Noise Impact Assessment (Umwelt, 2016)** is provided in .

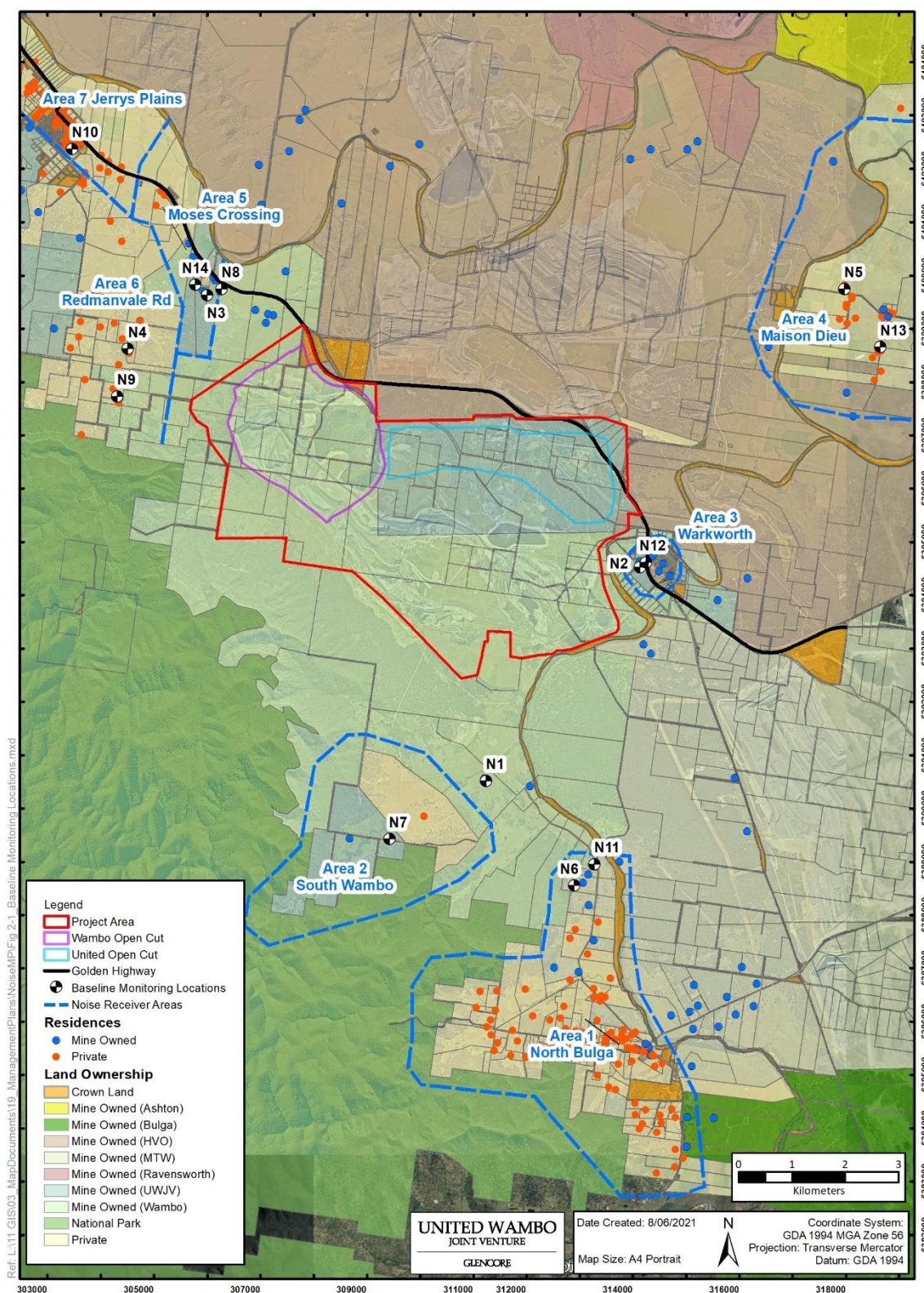


Figure 3-1: Baseline Noise Monitoring Network and Sensitive Receptors

Table 3-1: Baseline Data, dB(A)

Monitoring Location	Time Period	RBL ¹	Mean LAeq Total Measured (All sources)	Mean LAeq Excluding Wambo Open Cut
N01 – Sentinex 15 South Wambo	Day	30.0 ²	44.9	37
	Evening	33.4	43.5	35
	Night	31.6	42.6	33
N02 – Sentinex 16 Warkworth	Day	39.2	53.6	46
	Evening	39.3	50.5	46
	Night	38.3	49.0	46
N03 – Sentinex 17 Moses Crossing	Day	35.9	51.1	40
	Evening	35.1	48.6	39
	Night	33.3	46.6	39
N04 – Sentinex 18 Redmanvale	Day	30.0 ²	46.4	32
	Evening	32.3	47.9	32
	Night	30.0 ²	43.9	30
N05 Mason Dieu	Day	36.6	52.0	41
	Evening	36.9	50.3	41
	Night	35.8	44.0	40
N06 – Sentinex 122 North Bulga	Day	30.0 ²	41.0	37
	Evening	30.0 ²	38.3	35
	Night	30.0 ²	37.3	33
N07 South Wambo	Day	30.0 ²	42.5	35
	Evening	30.0 ²	38.0	34
	Night	30.0 ²	35.5	31
N09 Redmanvale	Day	30.0 ²	52.2	<30
	Evening	30.0 ²	46.2	<30
	Night	30.0 ²	45.1	<30
N10 – Sentinex 122 Jerrys Plains	Day	34.4	49.8	<35
	Evening	35.1	47.4	<35
	Night	31.1	45.9	<35

1 Rating Background Level

2 Where the RBL is less than 30 dB(A), the RBL is set at 30 dB(A)

3.1.3 Sensitive Receiver Locations

Properties likely to experience noise impacts from United Wambo were identified and assessed in the **United Wambo Open Cut Coal Mine Project Noise Impact Assessment (Umwelt, 2016)** and refined in associated noise assessment documentation submitted to DPIE and the IPC. As summarised in , the overall noise assessment for the Project found that 38 receptors were predicted to experience an exceedance of the Project-Specific Noise Level (PSNL) at some stage during the life of the project. Sensitive receiver locations are shown in .

Table 3-2: Residences Predicted to Exceed PSNL

Residual Noise Level Above PSNL	Number of Residences	Receiver ID	Classification of Impact
0-2 dB(A)	13	R6, R7, R41,R44, R46, R133, R379, R485, R487, R493, R495, R496	Noise Management Zone – negligible impact
3-5 dB(A)	18	R3, R25, R29, R30, R33, R41, R42, R48, R49, R50, R75, R163, R320, R343, R344, R345, R346, R348	Active Noise Management Zone – moderate impact
>5 dB(A)	7	R16, R17, R19*, R39, R40*, R43	Noise Affectionation Zone

* Residence since purchased by United Wambo

3.2 Impacts

3.2.1 Operations Generating Unacceptable Noise Levels

Noise emissions from general mining activities are from a variety of sources including material handling, material transport and processing. These emissions mainly comprise of low frequency tonal noises (general operating noise) and sleep disturbing noises (horns, dozer track clatter).

The EIS provided estimates of emissions from all significant noise generating activities/sources at United Wambo.

Noise Mitigation and Management Measures have been developed to minimise particulate matter, and are identified in **Section 4.3**.

3.3 Criteria and Performance Metrics

United Wambo develop internal targets as part of annual planning (**EM Strategy Section 3.6**), which inform operational management, and ensure that obligated criteria and performance metrics outlined in this section are complied with.

3.3.1 Criteria

Condition B1 of **SSD 7142** and Condition L3 of **EPL 3141** specify that the noise generated by the development must not exceed the criteria listed in .

Table 3-3 Operational Noise Criteria

Noise Assessment Location	Noise Assessment Location	Day	Evening	Night	Night
		LAeq (15 min)	LAeq (15 min)	LAeq (15 min)	LA1 (1 min)
Area 1 - North Bulga	R003	38	36	36	46
	R006	37	35	35	45
	R007, R379	36	35	35	45
	All other privately-owned residences	35	35	35	45
Area 2 - South Wambo	R025	39	38	38	48
	All other privately-owned residences	35	35	35	45
Area 3 - Warkworth Village	All privately-owned residences	44	44	43	53
Area 4 - Maison Dieu	All privately-owned residences	42	42	41	51
Area 5 - Moses Crossing	R039	46	46	46	56
	R016	45	45	45	55
	R017	44	44	44	54
	R043	43	43	43	53
	R050C	41	41	41	51
	R050A	41	40	40	50
	R044	41	40	39	49
	All other privately-owned residences	41	40	38	48
Area 6 – Redmanvale	R320	40	40	40	50
	R033, R343	40	40	39	49
	R042	40	40	38	48
	R029, R345	40	40	37	47
	R048	39	39	39	49
	R030, R049, R163	39	39	38	48
	R075	39	39	37	47
	R041B	38	38	38	48
Area 6 - Redmanvale	R344, R346	38	38	37	47
	R348	38	38	36	46

Noise Assessment Location	Noise Assessment Location	Day	Evening	Night	Night
		L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)
	R041A	37	37	37	47
	All other privately-owned residences	35	35	35	45
Area 7 - Jerrys Plains	All privately-owned residences	40	40	36	46
All other areas	All privately-owned residences	35	35	35	45

Noise generated by the development must be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the:

- **NSW Industrial Noise Policy (EPA, 2000) for SSD 7142;** and
- **NSW Noise Policy for Industry (EPA, 2017) for EPL 3141**

The noise criteria in does 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.

3.4 Requirements of this Plan

United Wambo operations and support teams undertake consistent approaches to ensure that all approvals and licences are obtained and managed in accordance with conditions. **Section 3.4** outlines those approvals, licences and other regulatory requirements on applicable to United Wambo, obligations are added to the compliance management system to ensure compliance is managed.

3.4.1 Statutory Requirements

3.4.1.1 Development Consent

United Wambo received **SSD 7142** in accordance with Part 4 of the **Environmental Planning & Assessment Act 1979 (EP&A Act)** from the NSW Independent Planning Commission (IPC), on 29 August 2019. Conditions within **SSD 7142** relating to noise management, and where these are addressed within this document, are provided in **Appendix A -Statutory Requirements**.

Further commitments relating to noise management were made during the environmental assessment phase of the project. These commitments are also summarised in **Appendix A -Statutory Requirements**.

3.4.1.2 Environment Protection Licence

United Wambo operates under **EPL 3141**, issued by the **NSW Environment Protection Agency (EPA)** under the authority of the **Protection of the Environment Operations Act 1997 (POEO Act)**. Conditions within **EPL 3141** that regulate noise at the United Wambo are provided in Appendix A - (Table A2).

3.4.2 Other Approval/Legislation Requirements

There are a number of statutory requirements under both State and Federal legislation which apply to the operations of the Project. United Wambo will apply to the relevant regulators for all required approvals and licences. The planning and environmental legislative framework which United Wambo must operate within, is detailed in Section 4 of the EIS (located on the United Wambo website): (<https://www.glencore.com.au/.rest/api/v1/documents/3bde49b0581024055f46289487f747d4/United-Wambo-Project-EIS-Main-Text.pdf>).

3.5 Preparation and Implementation of this Plan

3.5.1 Preparation of MP

3.5.1.1 Suitably Qualified Person

United Wambo engaged a suitably qualified and experienced person to prepare the initial NMP for the site, in accordance with Condition B5 of **SSD 7142**. The Plan was prepared in accordance with relevant statutory requirements (including approvals and EIS commitments) and was approved by the then NSW Department of Planning, Industry and Environment (DPIE, now NSW Department of Planning, Housing and Infrastructure (DPHI)) on 11 November 2019. A copy of the approval is attached in **Appendix B -Original Approval**.

3.5.1.2 Stakeholder Consultation

Condition B5 of **SSD 7142** requires this NMP to have been prepared in consultation with the EPA and submitted to the Planning Secretary for approval.

The EPA was contacted and provided with the opportunity to provide comment and feedback on the management plans prepared for **SSD 7142**, including the NMP, on 21 September 2018 and 11 September 2019. The EPA noted that they do not undertake consultation for management plans and, as such, offered no comment in relation to these plans apart from ensuring that the plans consider the conditions of any Environment Protection Licence conditions in force at the time. The **EPL 3141** conditions relating to noise are described in **Section 4.2**.

Feedback and correspondence in relation to the NMP is attached in **Appendix C -Stakeholder Consultation**. Ongoing consultation is required with the EPA, prior to submitting revised versions of the NMP to DPHI.

Consultation has also been undertaken with DPHI during reviews of the NMP. Comments received from DPHI, and how they were addressed in the NMP, are included in **Appendix C -Stakeholder Consultation**.

3.5.1.3 Hold Points

The NMP was reviewed and revised (when applicable) in accordance with the following hold points of **SSD 7142**:

- prior to the commencement of Phase 1B (Version 3) and approved by Department of Planning and Environment ((DPE), now DPHI) on 13 July 2020. Phase 1B commenced on 17 July 2020;
- prior to the commencement of Phase 2 (Version 4) and approved by DPE on 19 November 2020. Phase 2 commenced on 1 December 2020; and

- after the approval of MOD1 (Version 6), in accordance with the DPE MOD1 Assessment Report (DPE, 2021).

Further details on these revisions are included in the change information table in **Section 9.3**.

3.5.2 Implementation of MP

United Wambo will implement the approved NMP, in accordance with relevant statutory requirements (including approvals and EIS commitments).

A copy of the currently approved NMP is publicly available on the United Wambo website. The approval letter from DPHI is included in **Appendix D -Current Approval**.

During Phases 1A and 1B of the transition process Wambo and United undertook all operations across the complex in accordance with the transitional noise criteria.

3.6 Objectives

The objectives of this NMP are to:

- to provide the context on the baseline noise of the area and the potential impacts associated with the operation;
- outline the obligations and commitment measures to be implemented to minimise noise from the operation;
- ensure noise management measures are effective and implementable at United Wambo to reduce the potential for impacts on noise, including source-specific noise controls and site-wide Management Systems and Procedures; and
- establish a noise monitoring system to assess the noise impact on surrounding sensitive receivers and performance against **SSD 7142** and **EPL 3141** specific noise impact assessment criteria.

4. Implementation

4.1 Training and Awareness

Effective implementation and maintenance of this plan depends on the competency of the United Wambo Workforce and its Contractors.

Training is provided to relevant personnel in accordance with the site Training Needs Analysis and the **United Wambo EM Strategy**. For further details, refer to the **United Wambo EM Strategy**.

4.2 Response Mechanisms and Strategies

The NMP response strategy is based on a combination of proactive (planning, daily forecasting) and reactive controls to achieve compliance with approval obligations and commitments.

4.2.1 Proactive Mechanisms

Proactive noise management involves the planning of activities in advance of potentially adverse conditions. Specifically, proactive noise management includes:

- implementation of systems to provide the operation with a daily forecast of expected noise conditions in the vicinity of the operation;
- modification of planned mining activities, as appropriate, to minimise noise impacts; and
- discussion of the weather conditions and noise considerations prior to commencing activities.

4.2.2 Reactive Mechanisms

Reactive noise management includes the modification or suspension of activities in response to triggers.

4.2.2.1 Trigger Action Response Plan

Trigger Action Response Plans (TARP) are used to guide supervisors and the workforce through steps to minimise noise impacts at a point in time, or over a period. TARPs are implemented following receipt of an alarm (meteorological and/or noise readings) – alarms are generated from monitors in the noise monitoring network and sent to a designated distribution list via email and SMS. The Noise TARP also outlines processes for communication with neighbouring mines when cumulative noise impacts are present.

The United Wambo Noise Trigger Action Response Plan (**Appendix E -Trigger Action Response Plan**) will utilise a two trigger levels system:

- Level 1 alert: when averaged noise levels from the AOI are consecutively within 2 dB of the relevant noise criterion at the nearest residence to the real-time noise monitoring unit over the alert period. First alert issued after a 30-minute period, then after every 15-minute period if noise levels are sustained; and
- Level 2 alert: when averaged noise levels from the AOI are consecutively at or above the relevant noise criterion at the nearest residence to the real-time noise monitoring unit over the alert period. First alert issued after a 30-minute period, then every 15-minute period if noise levels are sustained.

4.3 Management and Mitigation Measures

United Wambo will use a number of measures to minimise the noise impacts outlined in **Section 4.2**. Implementation of the mitigation measures identified in **Table 4-1** ensures United Wambo are taking reasonable steps to:

- comply with the noise criteria and operating conditions;
- employ best practice management; and
- minimise noise impacts even in noise-enhancing meteorological conditions.

Instances where a noise impact and associated management measure are applicable to another environmental or community aspect, the control measures and procedures may be detailed in that applicable management plan. The following management plans cross-over with the NMP:

- **Social Performance Management Plan (SPMP)**: consultation with stakeholders regarding noise impacts.

Table 4-1 Management and Mitigation Measures

Control Type	Impact Type	Management Measure	Trigger/Evidence	Responsibility
Mine Planning	Noise Impacts	As part of the mine planning process, United Wambo will: - Design emplacement areas to create sheltered dumping locations that can be used during adverse weather conditions where feasible and practicable. - Include bunds in strategic locations along haul roads, where practicable, to shield trucks and equipment on exposed sections of the haul road ramps. - Locate key haul roads below ground surface or behind topographical features to maximise shielding to surrounding receiver areas, where practicable.	Dump & Road Designs	Technical Services Dept
Plant & Equipment Maintenance		United Wambo: - Incorporate reasonable and feasible noise attenuation on key items of plant and equipment. - Regularly inspect and maintain noise attenuation systems. - Implement a process for periodic review of noise performance of the equipment fleet.	Noise Attenuation Testing Reports / Tax Receipts / Work Records / Maintenance Schedule	Maintenance Dept
Production Planning		United Wambo will implement proactive noise management controls involving the planning of activities in advance of potentially adverse conditions, through: - Implementation of a system to provide relevant personnel with a daily forecast of expected noise conditions in the vicinity of the operation - Discussion of the weather conditions and dust considerations at daily pre-shift meetings	Daily Planning Meetings / Weekly Planning Meetings / GCOM / Weather Forecasting MinVu	Production Dept

Control Type	Impact Type	Management Measure	Trigger/Evidence	Responsibility
		Monitoring and recording equipment in use		
Plant & Equipment Operation		United Wambo manage noise through correct use of plant and equipment. This includes: - Managing drop height of the first load into truck bodies to impact noise from the material. - Use 'silent horns' to communicate with trucks and smart broadband 'Quacker' reversing alarms.	PTO	Production Dept
Management of Operational Road Traffic		United Wambo will seek to minimise road traffic noise by employee commuter vehicles, which is primarily achieved through staggered shift change times.	Consultation Records	Production Dept / Environment & Community Dept
Modifying Operations		All reasonable steps will be taken to minimise the noise impacts and includes implementing the following adaptive management strategies in the case of noise enhancing meteorological conditions: - Strategic relocation or shut down of acoustically significant equipment during adverse meteorological conditions that could result in noise propagation towards sensitive receivers. - Limiting the activities of ancillary equipment in exposed locations. United Wambo will manage the drop height of the first load into truck bodies to minimise impact noise from the material. Progressive shut down of production machines in elevated locations. - Progressive shut down of production machines in elevated locations.	Sentinex Repository Records	Environment & Community

4.4 Engagement with Community and Tenants

4.4.1 Notification to Landholders and Tenants

In accordance with **SSD 7142** Condition D4, United Wambo was required to notify landholders and existing tenants of their rights under the consent and to provide any contextual information.

In accordance with **SSD 7142** Conditions D4 and D5, United Wambo have an ongoing requirement to notify new landholders and tenants of their rights under the consent and to provide any contextual information.

The SPMP details the notification process for landholders and tenants, and is the source of compliance to ensure notifications are made when required.

4.4.2 Acquisition and Additional Mitigation Measures

The SPMP details the acquisition and additional mitigation process for landholders and tenants, and is the source of compliance to ensure notifications are made when required.

4.4.2.1 Noise Management Zone (0 – 2 dB Exceedance)

- Respond to any issues of concern raised by community within 24 hours.
- Noise monitoring on-site and within the community.
- Making changes to operational noise mitigation measures, where practicable, to further reduce noise impacts.

4.4.2.2 Active Noise Management Zone (3 – 5 dB Exceedance)

In accordance with Condition D2 of SSD 7142, upon receiving a written request from the owner of any residence on the privately-owned land listed in Table 7 or Table 8 of SSD 7142, United Wambo 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 Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (VLAMP) (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.

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

All residences listed in Table 7 or Table 8 of SSD 7142 have been notified of their rights in accordance with Condition D4 of SSD 7142.

4.4.2.3 Noise Affectionation Zone (>5 dB Exceedance)

In accordance with Condition D1 of SSD 7142, upon receiving a written request for acquisition from the owner of the privately-owned land listed in Table 7 of SSD 7142, United Wambo must acquire the land in accordance with the procedures in Conditions D11 to D18 of SSD 7142.

All residences listed in Table 7 or Table 8 of SSD 7142 have been notified of their rights in accordance with Condition D4 of SSD 7142.

The SPMP details additional mitigation measures for landholders, and is the source of compliance for implementation.

5. Measurement and Evaluation

5.1 Monitoring

United Wambo has established a noise monitoring network and monitoring program in accordance with the requirements of relevant approvals and EIS commitments (**Section 1**) and following the collection of relevant baseline data (**Section 1**).

All noise monitoring is undertaken in accordance with the approved NMP (and associated approvals), with the monitoring program including:

- continuous noise monitoring units; and
- monthly attended noise monitoring – Noise Compliance Assessment Methodology (**Appendix F -Noise Compliance Assessment Methodology**).

Parameters to be measured and reported on during the monitoring program include:

- LAeq: The energy average A-weighted noise level; and
- LA1: The A-weighted noise level which is exceeded for 1% of the time.

The locations of noise and meteorological monitoring equipment have been chosen to be representative of the surrounding areas, including at nearest privately-owned residences, the locations are shown in **Figure 5-1**. Monitors are positioned to determine the contribution of United Wambo operations for both nearby residents and tenanted properties owned by United Wambo and other mining companies.

The details associated with the United Wambo noise monitoring network have been summarised in **Table 5-1**.

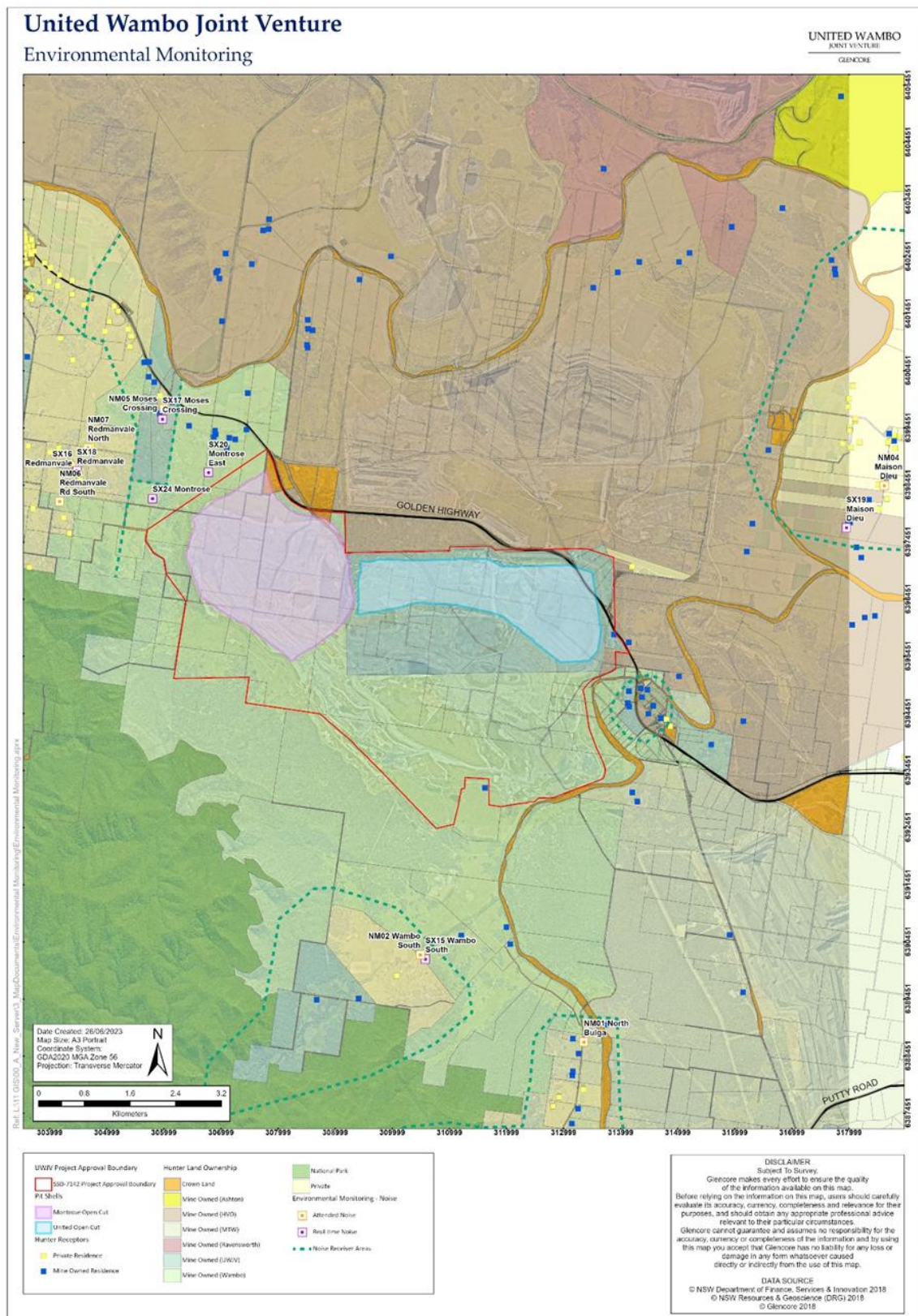


Figure 5-1: Noise Monitoring Locations

Table 5-1: Noise Monitoring Locations

Monitoring Site	Parameter	Easting	Northing	Location and Representative Residences	Equipment Type	Frequency	Standard	Purpose
NM02-RT SX15	Real-time Noise	310586	6390150	Located to the southeast of the Mine at South Wambo NMG 1 and 2: Res ID 3, 6, 7, 25, 379, 380, 381, 382	Directional noise unit	Continuous	AS 3580.9.8:2018	Management
NM05-RT SX19	Real-time Noise	317946	6397696	Located to the northeast of the Mine at Maison Dieu NMG 4: Res ID 485, 487, 489, 492, 493, 495, 496	Directional noise unit	Continuous	AS 3580.9.8:2018	Management
NM05-RT SX17	Real-time Noise	305953	6399608	Located to the north-west of the Mine at Moses Crossing NMG 5: Res ID 16, 17, 39, 40, 43, 44, 50, 133	Directional noise unit	Continuous	AS 3580.9.8:2018	Management
NM07-RT SX18	Real-time Noise	304518	6398505	Located to the north-west of the Mine at Redmanvale Rd NMG 6: Res ID 29, 30, 33, 42, 48, 49, 75, 163, 320, 344, 345, 346, 348	Noise unit	Continuous	AS 3580.9.8:2018	Management
NM01	Attended Noise	313354	6388694	Located to the southeast of the Mine at North Bulga NMG 1: Res ID 3, 6, 7, 379, 380, 381, 382	NA – acoustic consultant in-field	Monthly	INP (2000) NPfI (2017) AS 1055:2018	Compliance
NM02	Attended Noise	310491	6390223	Located to the southeast of the Mine at South Wambo NMG 2: Res ID 25	NA – acoustic consultant in-field	Monthly	INP (2000) NPfI (2017) AS 1055:2018	Compliance
NM04	Attended Noise	318616	6398438	Located to the northeast of the Mine at Maison Dieu	NA – acoustic consultant in-field	Monthly	INP (2000)	Compliance

Monitoring Site	Parameter	Easting	Northing	Location and Representative Residences	Equipment Type	Frequency	Standard	Purpose
				NMG 4: Res ID 485, 487, 489, 492, 493, 495, 496			NPfl (2017) AS 1055:2018	
NM05	Attended Noise	306001	6399786	Located to the north-west of the Mine at Moses Crossing NMG 5: Res ID 16, 17, 39, 40, 43, 44, 50, 133	NA – acoustic consultant in-field	Monthly	INP (2000) NPfl (2017) AS 1055:2018	Compliance
NM06	Attended Noise	304172	6398160	Located to the north-west of the Mine at Redmanvale Rd (south) NMG 6: Res ID 29, 42, 163, 345, 346, 348	NA – acoustic consultant in-field	Monthly	INP (2000) NPfl (2017) AS 1055:2018	Compliance
NM07	Attended Noise	304666	6399100	Located to the north-west of the Mine at Redmanvale Rd (north) NMG 7: Res ID 30, 33, 41, 48, 49, 75, 320, 343, 344	NA – acoustic consultant in-field	Monthly	INP (2000) NPfl (2017) AS 1055:2018	Compliance
WS2	Met	311529	6397247	North of United Open Cut	Met Station	Continuous	AS/NZS 3580.14:2014	Compliance and management

5.2 Compliance Management

Assurance is an ongoing process and is conducted in accordance with the **United Wambo EM Strategy** – which provides the process for planning and executing the assurance program. The main assurance process conducted by United Wambo include:

- workplace interactions and planned task observations;
- inspections;
- audits:
 - validation of monitoring data;
 - internal audits; and
 - external audits.

For further details, refer to the **United Wambo EM Strategy**.

5.3 Complaint Management

All complaints received by United Wambo are managed in accordance with the **United Wambo EM Strategy**, which details the process to ensure complaints are properly documented and handled in accordance with statutory requirements and company policy. A summary of complaint and grievance management includes:

- acknowledging all complaints by contacting the complainant to discuss the details of the complaint within 24 hours of receipt, where requested/practicable;
- investigating complaints impartially giving proper consideration to the facts and the circumstances prevailing at the time;
- implementing corrective actions if required;
- reporting investigation outcomes and corrective actions taken to the complainant; and
- all complaints are recorded in the compliance management system.
- Community members can raise a complaint/grievance 24 hours/7 days a week by calling the community response line on 1800 801 440.

For further details, refer to the **United Wambo EM Strategy**.

5.4 Incident and Non-compliance Management

All incidents recorded at United Wambo are managed in accordance with the **United Wambo EM Strategy**, which details the process to ensure incidents are properly documented, investigated and reported in accordance with statutory requirements and company policy. Incident and non-compliance management includes:

- all personnel (United Wambo employees and contractors) are required to report environmental incidents/non-compliances to their immediate supervisor/site contact;

- the Supervisor or site contact contacts a member of the United Wambo Environment and Community Department (E&C Department), immediately after becoming aware of the incident/non-compliance;
- the E&C Department determines the appropriate corrective or preventative action required to remediate or prevent a reoccurrence of the incident/non-compliance; and
- the details and final investigation results from all environmental incidents/non-compliance are recorded in the site compliance system

For further details, refer to the **United Wambo EM Strategy**.

Incidents which are reportable to an external stakeholder are outlined in **Table 5-2**.

Table 5-2 Stakeholder Notification for NMP Incidents

Incident	Stakeholder	Trigger
Exceedance of noise criteria	DPHI EPA CCC Near Neighbour/Tenant (only those impacted)	Results above criteria outlined in Section 1

5.5 Reporting/Access to Information

Reporting of noise monitoring results and performance will be undertaken in accordance with the schedule outlined in the **United Wambo EM Strategy**.

5.6 Record Keeping

All environmental monitoring data is maintained in accordance with the **United Wambo EM Strategy** and maintained on the premise for a period of four years.

6. Review and Improvement

6.1 Continuous Improvement

Where possible, United Wambo will implement all reasonable and feasible best practice noise mitigation measures. The basis for continuous improvement of noise mitigation measures will be through the ongoing monitoring of noise impacts and the corrective/preventative action process outlined in **Section 5.4.1.3** of the **United Wambo EM Strategy**.

The main avenues for continuous improvement are through site evaluation processes, which includes:

- Monitoring (**Section 5.1**)

- Compliance Management (**Section 5.2**)
- Complaint Management (**Section 5.3**)

Incident and Non-compliance Management (**Section 5.4**)

6.2 Plan Review

This NMP and associated documents will be reviewed in accordance with **SSD 7142** and the **United Wambo EM Strategy**. Where changes to the NMP (including management measures or monitoring programs) are required, the DPHI will approve the proposed changes prior to implementation.

6.3 Change Management

All changes to operations, facilities, plant equipment and production processes are required to be assessed in accordance with the change management process.

Change management will be undertaken at United Wambo in accordance with the **United Wambo EM Strategy**, which provides the process for managing the risks associated with change. For further details, refer to the **United Wambo EM Strategy**.

7. Accountabilities

Table 7-1 summarises the accountabilities of personnel involved in the implementation of this NMP

Table 7-1: Accountabilities

Role	Accountabilities for this document
Operations Manager	provide sufficient resources are allocated for the implementation of this NMP.
Maintenance Manager	ensure noise controls/attenuation measures are inspected and maintained for effective noise management.
Environment & Community Manager (ECM)	identify potential noise impacts and implement actions to mitigate the identified risks; coordinate and conduct training to ensure all relevant personnel are aware of noise management practices and mitigation measures; coordinate incident investigation processes including associated reporting requirements in accordance with legal requirements and incident reporting procedures; coordinate the implementation of corrective actions and evaluate their effectiveness; and identify potential noise impacts and implement actions to mitigate the identified risks; coordinate and conduct training to ensure all relevant personnel are aware of noise management practices and mitigation measures; coordinate incident investigation processes including associated reporting requirements in accordance with legal requirements and incident reporting procedures; coordinate the implementation of corrective actions and evaluate their effectiveness; and ensure all internal and external reporting requirements are met.
Environment & Community Officer (ECO)	coordinate, advise and assist with the implementation noise monitoring in accordance with the NMP; maintain procedures to ensure potential noise impacts are identified; coordinate monitoring surveys and develop proactive strategies to minimise noise and vibration impacts; maintain monitoring equipment in accordance with the requirements of the Project Approval and this plan; complete noise monitoring reports and make these reports available on the United Wambo website as per the requirements of the Project Approval; investigate and document findings from noise complaints; provide advice regarding noise management in response to alarms from the real-time noise monitoring system;

Role	Accountabilities for this document
	provide input regarding the effectiveness of noise mitigation measures; and complete reporting requirements for the Annual Review associated with this plan.
Department Managers	ensure personnel undertake the relevant noise management training; assist in the coordination of monitoring surveys and development of proactive strategies to minimise noise impacts; ensure that personnel and contractors carry out work in accordance with this NMP; and provide input regarding the effectiveness of noise mitigation measures.
All Employees and Contractors	comply with requirements of this NMP

8. Acronyms and Definitions

Table 8-1 summarises the acronyms and definitions relating to this NMP.

Table 8-1 Acronyms and Definitions

Term	Description
AS	Australian Standard
CHPP	Coal Handling and Preparation Plant
DPE	NSW Department of Planning and Environment
DPHI	Department of Planning, Housing and Environment (formerly DPE)
ECC	Environment and Community Coordinator
ECM	Environment and Community Manager
ECO	Environment and Community Officer
EIS	Environmental Impact Statement
EMS	Environmental Management Strategy
EM Strategy	United Wambo Environmental Management Strategy
EPA	NSW Environment Protection Authority
EPL3141	Environment Protection Licence 3141
HVO	Hunter Valley Operations
IPC	Independent Planning Commission
MEU	Mining and Energy Union
MOD	Modification
MP	Management Plan
NIA	Noise Impact Assessment
NMP	Noise Management Plan
NSW	New South Wales
OEM	Original Equipment Manufacturers
PSNL	Project Specific Noise Level

Term	Description
POEO Act	Protection of the Environment Operations Act 1997
ROM	Run of Mine
SSD	State Significant Development
SOC	Statement of Commitments
SPMP	Social Performance Management Plan
SSD7172	Development Consent SSD7142
TARP	Trigger Action Response Plan
VLAMP	Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments

9. Document Information

Relevant legislation, standards and other reference information must be regularly reviewed and monitored for updates and should be included in the site management system. Related documents and reference information in this section provides the linkage and source to develop and maintain site compliance information.

9.1 Related Documents

Related documents, listed in **Table 9-1** below, are *documents* directly related to or referenced from within this document.

Table 9-1 – Related documents

Number	Title
SSD7142	Development Consent
EPL3141	Environment Protection Licence
GRP-STD-HSEC-028-v1.0	Glencore Group Social Performance Standard
GCAA-625378177-9977	GCAA Social Performance Standard 10.0
GRP-STD-HSEC-022-v1.0	Glencore Environment Standard
GCAA-625378177-9978	GCAA Environment Standard 11.0

Number	Title
GRP-STD-IRM-001-v1.0	Glencore Enterprise Risk Management Standard 10.0
GCAA-625378177-10238	GCAA 11.11 Noise Management
UWOC-1689771511-378	United Wambo Noise Management Procedure
UWOC-1689771511-359	United Wambo Complaints Management Procedure
UWOC-1689771511-360	United Wambo Environmental Management Strategy
UWOC-1689771511-49	United Wambo Communication and Consultation Procedure

9.2 Reference Information

Reference information, listed in **Table 9-2** below, is *information* that is directly referred to for the development of this document.

Table 9-2 – Reference information

Reference	Title
Umwelt 2016a	United Wambo Open Cut Coal Mine Project – Noise Impact Assessment (Umwelt, 2016a)
Umwelt 2016b	United Wambo Open Cut Coal Mine Project – Environmental Impact Statement (EIS) (Umwelt 2016b)
Umwelt 2017a	United Wambo Open Cut Coal Mine Project – Response to Submissions (RTS) (Umwelt, 2017a)
Umwelt 2017b	United Wambo Open Cut Coal Mine Project – Response to Request for Further Information (RtRfFI) (Umwelt, 2017b).
	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA, 2022)
	NSW Industrial Noise Policy (2000)
	Noise Policy for Industry (2017)
AS1055	Acoustics - Description and measurement of environmental noise

9.3 Change Information

Full details of the document history are recorded in the document control register, by version. A summary of the current change is provided in **Table 9-3**.

Table 9-3: Change Table

Version	Date	Change Details
D.0	September 2019	New document
1.0	November 2019	Updated to address comments received from Department of Planning, Industry and Environment Approved 16/12/2019
2.0	April 2020	Updated Environmental Protection Licence requirements in Table 4-2 Approved 13/07/2020
2.1	July 2020	Updated to include Phase 2 of the Development
3.0	October 2020	Updated to address DPIE comments on Phase 2 submission Approved 19/11/2020 as Version 1.4
3.1	June 2021	Updated following Independent Environmental Audit and submission of Annual Review
4.0	January 2022	Updated in response to RFI from DPIE
5.0	April 2022	Review and updated in accordance with Condition E7 – Modification 1
6.0	August 2022	Minor formatting and revision of version number
7.0	May 2023	Updated following 2022 GCAA Standards Review. Changes included: Section 5 - new corporate requirements Section 6 - Internal Stakeholder communication update Section 11.8 – added Record Keeping Section 15.2- added references to Document Information section Table 11 2: Noise Trigger Action Response Plan – added updates that match current TARP Section 8.2: Existing Noise Environment
Draft 1 8.0	July 2024	Updated following 2023 IEA. Key changes have been outlined in a Summary of Changes Document provided to the DHPI on 16 August 2024.

Appendix A - Statutory Requirements

Source	Reference	Obligation
SSD7142	<i>SSD 7142 Condition B1</i>	<i>The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 1 at any residence on privately-owned land. Table 1: Operational noise criteria dB(A) a The Noise Assessment Locations referred to in Table 1 are shown in Appendix 3.</i>
SSD7142	<i>SSD 7142 Condition B2</i>	<i>Noise generated by the development must be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy (EPA, 2000). Appendix 4 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.</i>
SSD7142	<i>SSD 7142 Condition B3</i>	<i>The noise criteria in Table 1 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.</i>
SSD7142	<i>SSD 7142 Condition B37</i>	<i>Prior to the commencement of Phase 1B and for the remaining life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of the site that: (a) complies with the requirements in the Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales (DEC, 2007); (b) is capable of continuous real-time measurement of wind speed, wind direction sigma theta and temperature; and (c) is capable of measuring meteorological conditions in accordance with the NSW Industrial Noise Policy (EPA, 2000), unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.</i>

Source	Reference	Obligation
SSD7142	<i>SSD 7142 Condition B4</i>	<i>The Applicant must:</i> <i>(a) take all reasonable steps to minimise all noise from construction and operational activities, including low frequency noise and other audible characteristics, as well as road noise associated with the development, particularly during Phase 1B;</i> <i>(b) implement reasonable and feasible noise attenuation measures on all new plant and equipment that will operate in noise sensitive areas;</i> <i>(c) monitor and record all major equipment use and make this data readily available at the request of the Department or the EPA;</i> <i>(d) operate a comprehensive noise management system that uses a combination of predictive meteorological and noise forecasting and real-time monitoring to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this consent;</i> <i>(e) 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 4); and</i> <i>(f) 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.</i>
SSD7142	<i>SSD 7142 Condition B5</i>	<i>The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Planning Secretary. This plan must:</i> <i>(a) be prepared by a suitably qualified and experienced person/s;</i> <i>(b) be prepared in consultation with the EPA;</i> <i>(c) describe the measures to be implemented to ensure:</i> <i>(i) compliance with the noise criteria and operating conditions in this consent;</i> <i>(ii) best practice management is being employed; and</i> <i>(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 4);</i> <i>(d) seek to minimise road traffic noise generated by employee commuter vehicles on public roads;</i> <i>(e) describe the noise management system in detail; and</i> <i>(f) include a monitoring program that:</i> <i>(i) uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the development;</i> <i>(ii) includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time;</i> <i>(iii) adequately supports the noise management system;</i> <i>(iv) includes a protocol for distinguishing noise emissions of the development and the Wambo Mining Complex; and</i> <i>(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.</i>

Source	Reference	Obligation
SSD7142	SSD 7142 Condition B6	<i>The Applicant must not commence Phase 1B until the Noise Management Plan is approved by the Planning Secretary.</i>
SSD7142	SSD 7142 Condition B7	<i>The Applicant must implement the Noise Management Plan as approved by the Planning Secretary.</i>
SSD7142	SSD 7142 Condition D2	<i>Upon receiving a written request from the owner of any residence on the privately-owned land listed in Table 7 or Table 8, 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 Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments (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. Table 8: Land subject to additional mitigation upon request</i>
SSD7142	SSD 7142 Condition D3	<i>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.</i>
SSD7142 EIS SOC Mgmt Measures	SOC_8.0_Management Measures_024	<i>United will develop and implement a Noise Management Plan for the open cut operations. The Noise Management Plan will detail the implementation of monitoring and management controls to be utilised to manage noise impacts associated with the Project, and will include the key aspects outlined in Section 6.6.11.2.</i>
SSD7142 EIS SOC Mgmt Measures	SOC_8.0_Management Measures_025	<i>United will seek to achieve the predicted noise levels detailed in Section 6.6.3.4 through the implementation of a performance based adaptive management approach focused on implementing appropriate operational controls and management strategies to minimise noise impacts. The approach will vary during different mine stages, weather conditions and consider technological improvements and associated equipment noise levels. A range of controls and strategies may be adopted as required to meet noise performance requirements for the Project as outlined in Section 6.6.10.1.</i>
SSD7142 EIS SOC Mgmt Measures	SOC_8.0_Management Measures_026	<i>United commits to the implementation of the following key proactive noise management measures: o Incorporation of reasonable and feasible noise attenuation on key items of plant and equipment that will be re-used from the current Wambo Open Cut operations or other controls achieving the same overall noise outcome.</i>
SSD7142 EIS SOC	SOC_8.0_Management Measures_026	<i>o Incorporation of reasonable and feasible noise attenuation measures on new plant and equipment that has the potential to contribute to the Project's noise level.</i>

Source	Reference	Obligation
Mgmt Measures		
SSD7142 EIS SOC Mgmt Measures	<i>SOC_8.0_Management Measures_026</i>	<i>o Using 'silent horns' to communicate with trucks and smart broadband 'Quacker' reversing alarms.</i>
SSD7142 EIS SOC Mgmt Measures	<i>SOC_8.0_Management Measures_026</i>	<i>o The inclusion of bunds in strategic locations along haul roads, where practicable, to shield trucks and equipment on exposed sections of the haul road ramps.</i>
SSD7142 EIS SOC Mgmt Measures	<i>SOC_8.0_Management Measures_026</i>	<i>o Locating key haul roads below ground surface or behind topographical features to maximise shielding to surrounding receiver areas, where practicable.</i>
SSD7142 EIS SOC Mgmt Measures	<i>SOC_8.0_Management Measures_026</i>	<i>o Designing emplacement areas to create sheltered dumping locations that can be used during adverse weather conditions where feasible and practicable.</i>
SSD7142 EIS SOC Mgmt Measures	<i>SOC_8.0_Management Measures_026</i>	<i>o Managing the drop height of the first load into truck bodies to minimise impact noise from the material.</i>
SSD7142 EIS SOC Mgmt Measures	<i>SOC_8.0_Management Measures_027</i>	<i>United will implement reasonable and feasible receiver based noise mitigation measures which may include measures such as double glazing, insulation or air conditioning to residences located within the Active Noise Management Zone (refer to Section 6.6.3.4) upon written request.</i>
SSD7142 EIS SOC Mgmt Measures	<i>SOC_8.0_Management Measures_028</i>	<i>United will implement an appropriate continuous Noise Monitoring Program that will enable the proactive and real time management of operations during adverse noise propagating conditions, as outlined in Section 6.6.10.3.</i>
SSD7142 EIS SOC Main Text	<i>SOC_6.06_Noise_001</i>	<i>Section 6.6.1 Key noise controls for the Project include:</i> <i>• identifying activities that could be modified during times of adverse noise propagating meteorological conditions and the management of equipment during such conditions to minimise noise impacts</i>
SSD7142 EIS SOC Main Text	<i>SOC_6.06_Noise_001</i>	<i>• developing designs for emplacement areas to enable alternative dumping locations during adverse conditions</i>
SSD7142 EIS SOC Main Text	<i>SOC_6.06_Noise_001</i>	<i>• the inclusion of bunds in strategic locations along key haul roads, where practicable, to shield trucks and equipment on exposed sections of the ramps</i>

Source	Reference	Obligation
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_001	• locating key haul roads below the ground surface to maximise topographical shielding to surrounding receiver areas, where practical
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_001	• incorporation of reasonable and feasible noise attenuation on key plant and equipment.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_002	Section 6.6.3.3 Management procedures that can be implemented in the Noise Management Zone for negligible impacts of 0 to 2 dB above the PSNL include: • prompt response to any issues of concern raised by community
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_002	• noise monitoring on-site and within the community
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_002	• making changes to operational noise mitigation measures, where practicable, to further reduce noise impacts.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_003	Section 6.6.3.3 Management procedures that can be implemented in the Active Noise Management Zone for moderate impacts between 3 and 5 dB above the PSNL include: • as for Noise Management Zone, plus consideration of receiver based treatments of controls such as air conditioning or facade treatment.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_004	Section 6.6.3.3 The noise affectation zone occurs where the predicted noise levels are more than 5 dB above the target PSNL. Noise emissions at this level are considered likely to be unacceptable by some property holders and implementation of the following measures may be required: • implementation of acoustic mitigation at receivers or other negotiated agreement
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_004	• up front advice to property owners that they may have rights to request acquisition, subject to the terms of any future development consent.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_005	Section 6.6.10 It is recommended that as part of the Project an appropriate monitoring program is established to provide for the ongoing assessment of cumulative impacts over the life of the Project. Should cumulative noise impacts be identified and should the Project be a significant contributor to this impact (i.e. 40% or greater), appropriate management responses will need to be put in place by United Collieries in cooperation with other contributing mining operations.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_006	Section 6.6.11.1 United commits to the implementation of the following reasonable and feasible controls over the life of the Project:

Source	Reference	Obligation
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_007	Section 6.6.11.1 NIA 8.1 Page 78 <i>Incorporation of reasonable and feasible noise attenuation on key items of plant and equipment that will be re-used from the current Wambo Open Cut operations or other controls achieving the same overall noise outcome.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_008	Section 6.6.11.1 NIA 8.1 Page 78 <i>Include reasonable and feasible noise attenuation measures on new plant and equipment that has the potential to contribute to the Project's noise level.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_009	Section 6.6.11.1 NIA 8.1 Page 78 <i>Using 'silent horns' to communicate with trucks and smart broadband 'Quacker' reversing alarms.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_010	Section 6.6.11.1 NIA 8.1 Page 78 <i>The inclusion of bunds in strategic locations along haul roads, where practicable, to shield trucks and equipment on exposed sections of the haul road ramps.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_011	Section 6.6.11.1 NIA 8.1 Page 78 <i>Locating key haul roads below ground surface or topographical features to maximise shielding to surrounding receiver areas, where practicable.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_012	Section 6.6.11.1 NIA 8.1 Page 78 <i>Designing emplacement areas to create sheltered dumping locations that can be used during adverse weather conditions where practicable.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_013	Section 6.6.11.1 NIA 8.1 Page 78 <i>Managing the drop height of the first load into truck bodies to minimise impact noise from the material.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_014	Section 6.6.11.1 NIA 8.1 Page 79 <i>In addition to the measures above, United intends to achieve the predicted noise levels through the implementation of a performance based adaptive management approach (refer to Section 6.6.10.3) that focuses on implementing appropriate operational controls and management strategies to minimise noise impacts. The approach will vary during different mine stages and weather conditions, and considering evolving technology and associated equipment noise levels. A range of controls and strategies may be adopted as required to meet noise performance requirements for the Project. Examples of such controls and strategies include those incorporated into the noise model to demonstrate each stage of the Project could be managed to meet the noise performance requirements for the Project, including:</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_015	Section 6.6.11.1 • strategic relocation or shut down of acoustically significant equipment during adverse meteorological conditions that could result in noise propagation towards sensitive receivers

Source	Reference	Obligation
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_016	Section 6.6.11.1 • limiting the activities of ancillary equipment in exposed locations
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_017	Section 6.6.11.1 • progressive shut down of production machines in elevated locations.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_018	Section NIA 8.1 Page 79 United Open Cut (Year 2): - strategic relocation or shut down of the existing Komatsu 930E mine trucks during adverse meteorological conditions that could result in noise propagation towards Maison Dieu.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_019	Section NIA 8.1 Page 79 Wambo Open Cut (Year 2): - limiting the activities of ancillary equipment in exposed locations - progressive shut down of production machines in elevated locations starting with drill(s) supporting dozer(s) - strategic relocation or shut down of the more elevated of the two existing Komatsu PC5500 550t waste excavators and associated fleet during adverse meteorological conditions that could result in noise propagation towards Redmanvale and Jerrys Plains.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_020	Section NIA 8.1 Page 79 Wambo Open Cut (Year 6 to 11): o limiting the activities of ancillary equipment in exposed locations o progressive shut down of production machines in elevated locations starting with drill(s) supporting dozer(s) o strategic relocation of the 250t coal and 550t waste excavators during adverse meteorological conditions to minimise noise propagation towards Redmanvale and Jerrys Plains and the risk of needing to shut down one of the excavators and associated fleet.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_021	Section NIA 8.1 Page 79 Wambo Open Cut (Year 16): o limiting the activities of ancillary equipment in exposed locations o progressive shut down of production machines in elevated locations starting with drill(s) supporting dozer(s) o strategic relocation or shut down of the more elevated of the two 550t waste excavators and associated fleet during adverse meteorological conditions that could result in noise propagation towards Jerrys Plains.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_022	Section 6.6.11.1 NIA 8.1 Page 79 In addition to the implementation of noise mitigation strategies during periods of adverse weather conditions, United will implement the following general noise mitigation measures as part of the Project:
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_023	Section 6.6.11.1 NIA 8.1 Page 79 * regular inspection and maintenance of noise attenuation systems
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_024	Section 6.6.11.1 NIA 8.1 Page 79 * implementation of a process for periodic review of noise performance of the equipment fleet

Source	Reference	Obligation
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_025	Section 6.6.11.1 NIA 8.1 Page 80 <i>* implementation of systems that identify adverse meteorological conditions which are likely to result in elevated noise impacts</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_026	Section 6.6.11.1 NIA 8.1 Page 80 <i>* the implementation of noise awareness training for key employees to facilitate effective noise management.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_027	Section 6.6.11.1 NIA 8.1 Page 80 <i>* offering reasonable and feasible noise mitigation measures, which may include measures such as double glazing, insulation or air conditioning, to landowners in the active noise management zone.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_028	Section NIA 8.1 Page 80 <i>* the establishment of appropriate monitoring and reporting requirements for noise management</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_029	Section 6.6.11.2 NIA 8.2 Page 80 <i>United will develop and implement a Noise Management Plan for the open cut operations. The Noise Management Plan will detail the implementation of monitoring and management controls to be utilised to manage noise impacts. The Noise Management Plan will include:</i> <i>• noise objectives and targets consistent with the development consent</i> <i>• noise management measures in place at the site</i> <i>• consultation processes to monitor and manage the potential for cumulative noise with neighbouring mining/industrial operations</i> <i>• requirements for general noise awareness training for key operational staff</i> <i>• a noise monitoring program that provides for proactive noise management, ongoing noise performance monitoring and determination of compliance with relevant noise criteria provided in the development consent</i> <i>• the development of a Trigger Action Response Plan (TARP) that includes an Incident Investigation and Response process</i> <i>• stakeholder consultation</i> <i>• complaint/enquiry handling process including maintenance of a 24 hour community contact line</i> <i>• a roles and responsibilities matrix, with responsibilities being clearly defined through all levels within the operation.</i>

Source	Reference	Obligation
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_030	Section NIA 8.2 Page 80 It is recommended that a NMP include the development of a Trigger Action Response Plan (TARP) that includes an Incident Investigation and Response process that: • is implemented following notification of elevated noise levels through SMS Alarm or complaint • records the actions taken by site personnel following notification of elevated noise levels including mitigation measures undertaken to achieve compliance • in the event that an exceedance of the noise impact assessment criteria is identified, guides the notification process for relevant government agencies and any affected landowners within the statutory timeframe.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_031	Section NIA 8.2 Page 81 If a non-compliance is identified or a request for installation of noise impact mitigation measures is received, the NMP will document the corrective or preventative actions to be implemented in accordance with the Development Consent. The NMP will also document the review process required to assess the effectiveness of the corrective/preventative action taken and specify the timeframe for the review following the implementation of the corrective action.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_032	Section 6.6.11.3 The incorporation of reasonable and feasible noise control measures has reduced the noise impacts associated with the Project. Central to the ongoing management of noise impacts is the implementation of an appropriate continuous noise monitoring program that will enable the proactive and real time management of operations during adverse noise propagating conditions. The noise monitoring program proposed for the Project will include:
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_033	Section 6.6.11.3 · predictive forecasting of adverse weather conditions based on local meteorological data
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_034	Section 6.6.11.3 · operation of four continuous noise monitors with directional monitoring, SMS alert, continuous online data collection and audio recording capabilities
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_035	Section 6.6.11.3 a program of attended noise monitoring as identified in the Noise Management Plan. This will include monitoring at suitable locations (initially proposed at five locations) to validate the findings of the continuous monitors, attended monitoring undertaken monthly during winter nights and quarterly during the day, evening and night periods for the remainder of the year, subject to the requirements of the development consent
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_036	Section 6.6.11.3 · appropriate data assessment and review procedures

Source	Reference	Obligation
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_037	Section 6.6.11.3 · a noise incident investigation and response plan
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_038	Section 6.6.11.3 · change management processes to assess potential noise impacts of significant operational changes.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_039	NIA 8.2 Page 81 It is recommended that NMP include a review process so that: • data collected by the continuous noise monitoring units is reviewed on a regular basis to establish any correlation between meteorological conditions and elevated noise levels. This information could then be used to proactively manage noise impacts and mitigate the potential for noise enhancement as a result of meteorological conditions • data collected by the continuous noise monitoring units is reviewed to identify if the recorded noise levels are trending towards a non-compliance with site noise criteria.
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_040	NIA 8.2 Page 81 During the operational phase of the Project, it is recommended the NMP include a change management process that is implemented, at a minimum, in the following instances: • when significant changes are made to the number of equipment items or type of equipment utilised on site, providing for evolving technology and equipment changes, to ensure the potential risk of noise criteria being exceeded is minimised • prior to the purchase or rental of equipment which, through either size or volume, has the potential to result in exceedance of noise criteria. The change management process should consider the noise performance of the Project and the impact the proposed changes may have on the operational noise levels. It is also recommended the NMP include a trigger to initiate noise modelling of the predicted noise emissions from operational changes that may result in non-compliance with the relevant statutory approval(s).
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_041	NIA 8.2 Page 81 A methodology for assessing compliance with the noise related requirements of the Development Consent and EPL should be developed as part of the NMP that incorporates the following components: • an attended noise monitoring program to measure ambient noise levels in the surrounding region to determine the Project's contribution to measured noise levels • assessment of the attended noise monitoring results against predicted noise levels from the Project noise models under similar meteorological conditions • a monitoring program that validates the information obtained from the continuous noise monitoring units including source identification and noise level. When comparing the predicted noise levels with the relevant criteria it should be noted that this NIA reported noise levels that were likely to be exceeded 10 per cent of the time.

Source	Reference	Obligation
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_042	NIA 8.2 Page 82 <i>It is recommended the attended noise monitoring program be used to assess the performance of all mining machinery as a whole. Equipment selection should be governed by the noise performance of the mine not necessarily on individual items of equipment.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_043	NIA 8.2 Page 82 <i>To provide for ongoing compliance with the noise criteria, it is recommended the Project actively manage the operations by controlling the placement and use of mining equipment, particularly during unfavourable meteorological conditions. To assess the effectiveness of noise control measures and when they should be implemented, it is recommended the Project implement a performance monitoring program based around continuous noise monitors identified in Table 8.1. The performance monitoring program should include:</i> • <i>measurement and reporting against Project criteria using the LAeq, 15 minute descriptor and when appropriate the LAeq, period descriptor</i> • <i>measurement and reporting against the cumulative industrial noise level criteria using the LAeq, period as the descriptor</i> • <i>identification and reporting of transient impact noise levels against the LA1, 1 minute sleep disturbance descriptor</i> • <i>the establishment and regular review of alarm triggers for each of the descriptors. The results of the attended monitoring would be used to validate the findings of the continuous noise monitors.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_044	NIA 8.2 Page 82 <i>The monitoring results should be reviewed to assess compliance with the NIA predictions and criteria outlined in the Development Consent and EPL. The results should be reported in accordance with the requirements of the Development Consent and EPL. A summary of the noise monitoring results should be reported in the Annual Review in accordance with the relevant DPE reporting guidelines.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_045	NIA 8.2.1 Page 82 <i>During adverse weather conditions, the Project will need to initiate changes to operations to mitigate potential noise impacts. The Project should employ predictive forecasting of adverse weather conditions to identify when and where management measures are likely to be required as a result of an adverse weather event. The NMP should outline the procedural requirement following the predictive forecasting of adverse weather conditions through the development of a Noise TARP.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_046	NIA 8.2.1 Page 83 <i>The meteorological monitoring system should be linked to the real time monitoring system allowing access to real time weather conditions and the effective management of operations during periods of adverse weather.</i>

Source	Reference	Obligation
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_047	NIA 8.2.1 Page 82 <i>It is recommended that the Project installs and maintains a continuous monitoring network consisting of fixed and mobile continuous noise monitoring units and an online weather station. The continuous noise monitors would allow noise levels and local meteorological data to be analysed and compared against the noise criteria, providing information on the ongoing performance of the Project and incorporate alarms that initiate actions as outlined in the TARP.</i>
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_048	NIA 8.3.1 Page 83 Table 8.1 <i>Continuous Noise Monitoring Program Monitoring Location / Description / Capabilities</i> NM01 / North Bulga / Directional Real-time Noise Monitor NM02 / Maison Dieu / Directional Real-time Noise Monitor NM03 / Moses Crossing / Directional Real-time Noise Monitor NM04 / Redmanvale / Directional Real-time Noise Monitor
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_049	NIA 8.3.1 Page 85 Table 8.2 <i>Attended Noise Monitoring Program Monitoring Location / Description / Frequency and Use</i> NM01 / North Bulga / Winter Nights – Monthly; Quarterly – Day, Evening and Night NM02 / Maison Dieu / Winter Nights – Monthly; Quarterly – Day, Evening and Night NM03 / Moses Crossing / Winter Nights – Monthly; Quarterly – Day, Evening and Night NM04 / Redmanvale / Winter Nights – Monthly; Quarterly – Day, Evening and Night NM05 / Redmanvale / Winter Nights – Monthly; Quarterly – Day, Evening and Night
SSD7142 EIS SOC Main Text	SOC_6.06_Noise_050	NIA 8.3.1 Page 85 <i>An online weather station is required to forms part of the continuous monitoring network for the Project in accordance with the requirements of Australian Standard AS2922-1987 Ambient Air – Guide for the siting of sampling units. The weather station should be capable of recording the following meteorological data at 15-minute intervals:</i> • wind speed, wind direction and sigma-theta • temperature at 2 metres and 10 metres • humidity • rainfall. <i>Based on current EPA expectations, where the noise impacts are predicted based on stability class rather than lapse rate, a 10 metre tower is suitable for measuring stability class based on sigma theta. As a result, the 10 metre tower weather stations would be suitable for assessing the presence of inversion conditions that could lead to the enhancement of noise impacts from the Project. The weather station currently maintained by Wambo satisfies the requirements of AS2922-1987. It is recommended that the suitability of the existing Wambo weather station and monitoring location be assessed against the long term requirements for the Project.</i>
SSD7142 EIS SOC Main Text	SOC_6.09_Ecology_002	<i>o noise control systems to minimise noise impacts</i>

Source	Reference	Obligation
SSD7142 EIS SOC Main Text	<i>SOC_6.20_Public Health_001</i>	<i>Section 6.20 Table 6.52 Page 414 It is also noted that noise impacts will occur at mine owned properties in Warkworth and other surrounding areas. These properties are mine owned as they are within the affectation zones of the existing mining operations in the local area. United will consult with the owners, and as relevant with the tenants of these properties regarding the Project related impacts at these properties.</i>
SSD7142 EIS SOC PAC Res	<i>SOC_PAC_Res_001</i>	<i>Section Noise Page 111 United will take all reasonable steps to minimise the noise impacts of the Project during periods where the noise criteria do not apply due to the occurrence of very noise enhancing meteorological conditions.</i>
SSD7142 EIS SOC PAC Res	<i>SOC_PAC_Res_024</i>	<i>Section Transition Page 113 During Phases 1A and 1B of the transition process Wambo and United commit to undertake all operations across the complex to meet the proposed transitional noise criteria.</i>
SSD7142 EIS SOC RFAI	<i>SOC_RFAI_001</i>	<i>Section 3 Page 54 United will implement the noise monitoring and compliance assessment process outlined in Appendix 1.</i>
SSD7142 EIS SOC RTS	<i>SOC_RTS_A_018</i>	<i>Section 3.1 and 3.4 A compliance monitoring model will also be developed under the Noise Management Plan to provide a methodology for establishing whether each individual licensee is complying with its respective licence conditions. It is expected that the Noise Management Plan would be prepared in consultation with the EPA in accordance with any conditions of the development consent.</i>
SSD7142 EIS SOC RTS	<i>SOC_RTS_A_019</i>	<i>Section 3.1 Noise Management and Mitigation Measures</i>
SSD7142 EIS SOC RTS	<i>SOC_RTS_A_020</i>	<i>Section 3.1 A combination of proactive and reactive/adaptive controls has been included in the Project design and committed to in the EIS. Proactive control measures to be implemented over the life of the Project include (with explanatory text in italics where required):</i>
SSD7142 EIS SOC RTS	<i>SOC_RTS_A_021</i>	<i>Section 3.1 · Incorporation of reasonable and feasible noise attenuation on key items of plant and equipment that will be re-used from the current Wambo Open Cut operations or other controls achieving the same overall noise outcome.</i>
SSD7142 EIS SOC RTS	<i>SOC_RTS_A_022</i>	<i>Section 3.1 · Include reasonable and feasible noise attenuation measures on new plant and equipment that has the potential to contribute to the Project's noise level.</i>

Source	Reference	Obligation
SSD7142 EIS SOC RTS	SOC_RTS_A_023	Section 3.1 · Using 'silent horns' to communicate with trucks and smart broadband 'Quacker' reversing alarms.
SSD7142 EIS SOC RTS	SOC_RTS_A_024	Section 3.1 · The inclusion of bunds in strategic locations along haul roads, where practicable, to shield trucks and equipment on exposed sections of the haul road ramps. In this context where practicable is included as in some areas due to topography there may not be sufficient space to establish bunds or there may be other safety constraints that constrain the design (e.g. sight distance).
SSD7142 EIS SOC RTS	SOC_RTS_A_025	Section 3.1 · Locating key haul roads below ground surface or topographical features to maximise shielding to surrounding receiver areas, where practicable. In this context where practicable is included as in some areas due to topography and mine design it may not be possible or practicable to locate key haul roads below ground surface or topographical features. Achieving this outcome will, however, be considered during designing of haul roads.
SSD7142 EIS SOC RTS	SOC_RTS_A_026	Section 3.1 · Designing emplacement areas to create sheltered dumping locations that can be used during adverse weather conditions where feasible and practicable. In this context where feasible and practicable is included as in some areas due to topography, mine design and where emplacement areas are in exposed locations (e.g. the initial phases of establishment of overburden emplacement) it may not be possible to have sheltered dumping locations for 100% of the duration of mining. However, United will design emplacement areas to have sheltered locations where possible as this increases operational efficiencies as without such locations the period of equipment shutdown due to environmental constraints increases.
SSD7142 EIS SOC RTS	SOC_RTS_A_027	Section 3.1 · Managing the drop height of the first load into truck bodies to minimise impact noise from the material.
SSD7142 EIS SOC RTS	SOC_RTS_A_028	Section 3.1 In addition to the measures above, United intends to achieve the predicted noise levels at private residences through the implementation of a performance based adaptive management approach that focuses on implementing appropriate operational controls and management strategies to minimise noise impacts. The approach will vary during different mine stages and weather conditions, and considering evolving technology and associated equipment noise levels. Outlined below are a range of controls and strategies that will be adopted as required to meet noise performance requirements for the Project. Examples of such controls and strategies include those incorporated into the noise model to demonstrate each stage of the Project could be managed to meet the noise performance requirements for the Project, including:

Source	Reference	Obligation
SSD7142 EIS SOC RTS	SOC_RTS_A_029	Section 3.1 · strategic relocation or shut down of acoustically significant equipment during adverse meteorological conditions that could result in noise propagation towards sensitive receivers
SSD7142 EIS SOC RTS	SOC_RTS_A_030	Section 3.1 · limiting the activities of ancillary equipment in exposed locations
SSD7142 EIS SOC RTS	SOC_RTS_A_031	Section 3.1 · progressive shut down of production machines in elevated locations.
SSD7142 EIS SOC RTS	SOC_RTS_A_032	Section 3.1 In addition to the implementation of noise mitigation strategies during periods of adverse weather conditions, United will implement the following general noise mitigation measures as part of the Project:
SSD7142 EIS SOC RTS	SOC_RTS_A_033	Section 3.1 · regular inspection and maintenance of noise attenuation systems
SSD7142 EIS SOC RTS	SOC_RTS_A_034	Section 3.1 · implementation of a process for periodic review of noise performance of the equipment fleet
SSD7142 EIS SOC RTS	SOC_RTS_A_035	Section 3.1 · implementation of systems that identify adverse meteorological conditions which are likely to result in elevated noise impacts
SSD7142 EIS SOC RTS	SOC_RTS_A_036	Section 3.1 · the implementation of noise awareness training for key employees to facilitate effective noise management
SSD7142 EIS SOC RTS	SOC_RTS_A_037	Section 3.1 · offering reasonable and feasible noise mitigation measures, which may include measures such as double glazing, insulation or air conditioning, to landowners in the active noise management zone.
SSD7142 EIS SOC RTS	SOC_RTS_A_084	Section 3.12 As outlined in Section 6.6.11.2 of the EIS, United will develop and implement a Noise Management Plan for the Project which will detail the implementation of monitoring and management measures to be utilised to manage noise impacts.
SSD7142 EIS SOC RTS	SOC_RTS_A_084	In relation to community consultation, the Noise Management Plan will include: • mechanisms for stakeholder consultation relating to noise • consultation processes to monitor and manage the potential for cumulative noise with neighbouring mining / industrial operations

Source	Reference	Obligation
SSD7142 EIS SOC RTS	SOC_RTS_A_084	complaint/enquiry handling process including maintenance of a 24 hour community contact line.
SSD7142 EIS SOC RTS	SOC_RTS_A_126	Section 4.4.1, 4.4.2.1 United will also implement an appropriate continuous Noise Monitoring Program that will enable the proactive and real time management of operations during adverse noise propagating conditions, which will be detailed as part of the Noise Management Plan for the Project. These measures will be put in place to seek to minimise the noise impacts of the Project.
SSD7142 EIS SOC RTS	SOC_RTS_A_137	Section 4.18.1 Should the Project be approved, if monitoring indicates that the criteria are being exceeded by the Project, then further measures would be taken to achieve compliance, or, if compliance could not be achieved a range of measures would be available to the landholder including potential voluntary acquisition rights if it was demonstrated that the Project was resulting in significant noise impacts.
EPL3141	Schedule 2 Condition P1	P1 .4 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.Noise/WeatherEPA identification number - Type of Monitoring Point - Location Description3 - Meteorological Station - to determine meteorological conditions for noise monitoring - 'WS2'at 321259, 6397526 (Easting, Northing).12 - Noise monitoring - 'NM01' for NMG1 at 313354, 6388694 (Easting, Northing).13 - Noise monitoring - 'NM02' for NMG2 at 310491, 6390223 (Easting, Northing).14 - Noise monitoring - 'NM04'for NMG4 at 318616, 6398438 (Easting, Northing).15 - Noise monitoring - 'NM05' for NMG5 at 306001, 6399786 (Easting, Northing).16 - Noise monitoring - 'NM06' for NMG6 at 304172, 6398160 (Easting, Northing).17 - Noise monitoring - 'NM07' for NMG7 at 304666, 6399100 (Easting, Northing).19 - Air blast overpressure & ground vibration peak particle velocity monitoring - 'BM03' at 311155, 6390609 (Easting, Northing).20 - Air blast overpressure & ground vibration peak particle velocity monitoring - 'BM05' at 305998, 6399784 (Easting, Northing).21 - Air blast overpressure & ground vibration peak particle velocity monitoring - 'BM07' at 304496, 6398655 (Easting, Northing).22 - Air blast overpressure & ground vibration peak particle velocity monitoring - 'BM08' at 317931, 6397826 (Easting, Northing).
EPL3141	Schedule 2 Condition P1	P1 .5 For the purposes of Condition P1.1, P1.2, P1.3 and P1.4, Figure 1 refers to the plan titled "United Wambo Joint Venture Project Environment Protection Licence 3141 Plan of the Premises dated 25/11/2020 EPA Reference DOC20/913399-4.

Source	Reference	Obligation
EPL3141	<i>Schedule 3 Condition L3</i>	<i>L3 Noise limits</i> <i>L3.1 Noise generated at the premises must not exceed the noise limits presented in the table below.</i> <i>Location - Day LAeq(15min) - Evening LAeq(15min) - Night LAeq(15min) - Night LA1(1min)</i> <i>EPA Point 12 in NAG1 - - - 36 - 46EPA Point 13 in NAG2 - - - 38 - 48EPA Point 14 in NAG4 - - - 41 - 51EPA Point 15 in NAG5 - - - 46 - 56EPA Point 16 in NAG6 - - - 39 - 49EPA Point 17 in NAG7 - - - 40 - 50Residence 003 in NAG1 - 38 - 36 - 36 - 46Residence 006 in NAG1 - 37 - 35 - 35 - 45Residence 007 & 379 in NAG1 - 36 - 35 - 35 - 35 - 45All other private residences in NAG1, NAG2 & NAG6 - 35 - 35 - 35 - 45Residence 025 in NAG2 - 39 - 38 - 38 - 48All private residences in Area 3 - 44 - 44 - 43 - 53All private residences in NAG4 - 42 - 42 - 41 - 51Residence 039 in NAG5 - 46 - 46 - 46 - 56Residence 016 in NAG5 - 45 - 45 - 45 - 55Residence 017 in NAG5 - 44 - 44 - 44 - 54Residence 043 in NAG5 - 43 - 43 - 43 - 53Residence 050C in NAG5 - 41 - 41 - 41 - 51Residence 050A in NAG5 - 41 - 40 - 40 - 50Residence 044 in NAG5 - 41 - 40 - 39 - 49All other private residences in NAG5 - 41 - 40 - 38 - 48Residence 320 in NAG6 - 40 - 40 - 40 - 50Residence 033 & 343 in NAG6 - 40 - 40 - 39 - 49 Residence 042 in NAG6 - 40 - 40 - 38 - 48Residence 029 & 345 in NAG6 40 - 40 - 37 - 47 Residence 048 in NAG6 - 39 - 39 - 39 - 49Residence 030, 049 & 163 in NAG6 - 39 - 39 - 38 - 48Residence 075 in NAG6 - 39 - 39 - 37 - 47Residence 041B in NAG6 - 38 - 38 - 38 - 48Residence 344 & 346 in NAG6 - 38 - 38 - 37 - 47 Residence 348 in NAG6 - 38 - 38 - 36 - 46Residence 041A in NAG6 - 37 - 37 - 37 - 47All privately owned residences in NAG7 - 40 - 40 - 36 - 46</i>
EPL3141	<i>Schedule 3 Condition L3</i>	<i>L.3.2 For the purposes of condition L3.1:</i> <i>a) Residences referenced in this table are from consent SSD-7142 United Wambo Open Cut Coal Mine dated 29 August 2019 EPA Reference DOC19/1043296 and the document titled "United Wambo Open Cut Coal mine Project noise Impact Assessment": by UMWELT dated July 2016 EPA Reference DOC19/1079039; and</i> <i>b) Noise Monitoring Groups in this table are referenced in Figure 1 titled "United Wambo Joint Venture Project Environmental Protection Licence 3141 Plan of Premises" dated 4/12/2019 EPA Reference DOC19/1043296-5 and shape files EPA Reference DOC19/1043296-1.</i>
EPL3141	<i>Schedule 3 Condition L3</i>	<i>L3.3 For the purposes of Condition L3.1:</i> <i>a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays,</i> <i>b) Evening is defined as the period from 6pm to 10pm, and</i> <i>c) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays</i>

Source	Reference	Obligation
EPL3141	<i>Schedule 3 Condition L3</i>	<i>L3.4 The noise limits set out in condition L3.1 apply under all meteorological conditions except for the following: a) Wind speeds greater than 3 metres/second at 10 metres above the ground level; b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or c) Stability category G temperature inversion conditions.</i>
EPL3141	<i>Schedule 5 Condition M2.4</i>	<i>M2.4 The Licensee must use real-time data from the meteorological station (EPA Point 3) to calculate real-time stability class for the purpose of managing noise generated on the premises and for noise compliance monitoring against noise limits, in accordance with the EPA's Noise Policy for Industry (2017).</i>
EPL3141	<i>Schedule 5 Condition M9</i>	<i>M9 Noise monitoring M9.1 To assess compliance with condition L3.1, attended noise monitoring must be undertaken in accordance with Conditions L3.2 to L3.4: a) at the EPA points 12,13,14,15,16 and 17 identified in P1.4; and b) occur every calendar month in a reporting period; and c) occur during one night time period as defined in the Noise Policy for Industry (EPA 2017) for a minimum of 15 minutes at each location from a), and when relevant b) during the night.</i>
EPL3141	<i>Schedule 5 Condition M9</i>	<i>M9.2 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. Definitions Noise refers to 'sound pressure levels' for the purpose of conditions L3.1 to L3.4 and condition M9</i>
EPL3141	<i>Schedule 5 Condition M9</i>	<i>M9.3 Where required in writing by the EPA, the Licensee must carry out attended monitoring at sensitive receivers in addition the monitoring required by Condition M9.1.</i>
EPL3141	<i>Schedule 6 Condition R5.4</i>	<i>R5.4 Noise Compliance Assessment Report. 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: a) the contribution noise level from the premises as measured or determined at the monitoring location(s); and 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.</i>

Appendix B - Original Approval



**Planning,
Industry &
Environment**

Planning and Assessments
Energy and Resource Assessments
Contact: Melanie Hollis
Phone: (02) 8271 2043
Email: melanie.hollis@planning.nsw.gov.au

Ms Aislinn Farnon
Approvals Manager
United Wambo Coal JV Project

By email: Aislinn.Farnon@glencore.com.au

Dear Ms Farnon,

**United Wambo Open Cut Coal Mine (SSD 7142)
Environmental Management Plans**

I refer to your recent correspondence submitting the revised Noise Management Plan (NMP) for Phase 1A, in accordance with condition B5, and the revised Water Management Plan (WMP) for Phase 1A, in accordance with condition B52 of the United Wambo Open Cut Coal Mine development consent (SSD 7412).

The Department has reviewed the revised plans and considers that they adequately address the requirements of SSD 7412 in relation to Phase 1A operations. Consequently, the Department has approved these plans for the duration of Phase 1A.

The Department notes DPIE Water's comments (dated 9 December 2019) in relation to North Wambo Creek and considers that these comments should be addressed in future revisions of the WMP (insofar as these comments relate to the operational phases of the project).

The Department also notes that the revised NMP required prior to commencing Phase 1B of the operations will need to reflect the Noise Compliance Assessment Methodology (detailed in Appendix 1 of United Wambo's Response to the Request for Further Information dated September 2017) and be approved by the Secretary.

Should you have any enquiries in relation to this matter, please contact Melanie Hollis on the details listed above.

Yours sincerely,

16/12/2019

Matthew Sprott
Director
Resource Assessments
as nominee of the Secretary

Department of Planning, Industry & Environment
329 Pitt Street Sydney NSW 2000 | GPO Box 39 Sydney NSW 2001 | www.planning.nsw.gov.au

Appendix C - Stakeholder Consultation

C.1 EPA Consultation



DOC19/791288-2; EF13/3770

11 September 2019

United Collieries Pty Ltd
Private Mail Bag 13
SINGLETON NSW 2330

Email: Aislinn.Farnon@glencore.com.au
CC: Melanie.hollis@planning.nsw.gov.au

Attention: Aislinn Farnon

Dear Ms Farnon

UNITED WAMBO OPEN CUT COAL MINE PROJECT – ENVIRONMENTAL MANAGEMENT PLANS

Reference is made to your email dated 10 September 2019 to the Environment Protection Authority ("EPA") requesting consultation in relation to the preparation of the United Wambo Open Cut Coal Mine Project Environmental Management Plans. These include:

- Noise Management Plan;
- Air Quality and Greenhouse Gas Management Plan;
- Water Management Plan;
- Surface Water Management Plan;
- Erosion and Sediment Control Plan;
- Groundwater Management Plan; and
- Construction Environment Management Plan.

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

The EPA has not reviewed these reports and accordingly offers no comment in relation to them.

The EPA expects that Licensees comply with their Environmental Protection Licence.

Phone 131 555
Phone 02 4908 6800

Fax 02 4908 6810
TTY 133 677
ABN 43 692 285 758

PO Box 488G
Newcastle
NSW 2300 Australia

117 Bull Street
Newcastle West
NSW 2302 Australia

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

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If you wish to discuss the matter further, please contact me on 02 4908 6833.

Yours sincerely



NATASHA RYAN
A/Head Regional Operations Unit
Environment Protection Authority



DOC20/628223-3

United Wambo Joint Venture
134 Jerrys Plains Road
WARKWORTH NSW 2330

Returned via the Major Projects Portal

10 August 2020

Attention: Aislinn Farnon

Dear Mr Farnon

United Wambo Open Cut Coal Mine Noise Management Plan (SSD-7142-PA-26)

Reference is made to your request on 5 August 2020 via the Department of Planning, Industry and Environment's major projects portal requesting the Environment Protection Authority (EPA) to review and comment on the United Wambo Open Cut Coal Mine Noise Management Plan.

The EPA encourages the development of such plans to ensure that licensees have determined how they will meet their statutory obligations and designated environmental objectives.

Being a regulatory authority, the EPA's role is to set environmental management objectives rather than being directly involved in the development of strategies to achieve those objectives. Accordingly, the EPA has not reviewed this management plan.

If you have any questions about this matter, please contact Jenny Rushton on 02 6883 5301 or by email to hunter.region@epa.nsw.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read 'Jenny Lange'.

JENNY LANGE
A/Unit Head – Regional Operations

Phone 131 555
Phone 02 4908 6800

Fax 02 4908 6810
TTY 133 677
ABN 43 692 285 758

PO Box 488G
Newcastle
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hunter.region@epa.nsw.gov.au

C.2 Global Acoustics Correspondence



23 October 2019

Glencore Coal (NSW) Pty Limited - NSW
PMB 8
Singleton NSW 2330
Attention: Aislinn Farnon

Dear Aislinn,

Regarding: United Wambo Noise Management Plan

1 INTRODUCTION

This letter provides our confirmation that the United Wambo noise management plan (the NMP) supplied to you by us as UWJV Noise Management Plan v1.1_GAreview06.docx is:

- technically correct as per the Noise Policy for Industry; and
- meets the requirements of SSD 7142 Conditions of Consent FINAL.

The document history is broadly that it was:

- initially prepared by Glencore ;
- reviewed and revised by Global Acoustics;
- submitted to DPIE who subsequently asked for some modifications;
- revised by Glencore; and
- reviewed and revised again by Global Acoustics.

It should be noted that this document has been prepared for phase 1 only of the relevant project.

I trust this information meets your requirements. If you have any questions or need further details please contact us.

Global Acoustics Pty Ltd | PO Box 3115 | Thornton NSW 2322
Telephone +61 2 4966 4333 | Email global@globalacoustics.com.au
ABN 94 094 985 734

19272_L01

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Prepared: Tony Welbourne
Director



QA review: Jeremy Welbourne
Consultant

Global Acoustics Pty Ltd | PO Box 3115 | Thornton NSW 2322
Telephone +61 2 4966 4333 | Email global@globalacoustics.com.au
ABN 94 094 985 734

Appendix D - Current Approval

Department of Planning and Environment



Aislinn Farnon
Environment and Community Manager
United Collieries Pty Ltd
Old New England Highway
Ravensworth NSW 2333

09/08/2023

Subject: Approval of Revised Noise Management Plan

Dear Ms Farnon

I refer to the revised Noise Management Plan (version 7, dated May 2023) which was submitted in accordance with Condition B5 of Schedule 2 of the development consent for the United Wambo Open Cut Coal Mine (SSD-7142).

The Department has carefully reviewed the document and is satisfied that it meets the requirements of the relevant conditions in SSD-7142.

Accordingly, as nominee of the Planning Secretary, I approve the revised Noise Management Plan (version 7, dated May 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

Appendix E - Trigger Action Response Plan

Noise Trigger Action Response Plan (TARP)

UNITED WAMBO
JOINT VENTURE
GLENORE

Hazard Management Plan Reference			
UWOC-1689771511-383 Noise Management Plan			
Normal State			
In the event a noise alarm is triggered, the Noise TARP is required to be actioned.			
Trigger Action Response Plan			
Level 1 Trigger – Alert / Investigate	Level 2 Trigger – High Alert / Rectify	Level 3 Triggers – Stop – Withdrawal / Removal	
Low Frequency (LF) dB(A) within 2 dB of criterion for a 30-minute period	LF dB(A) at or above criterion for a 30-minute period	N/A	
Persons Affected	Action / Response	Action / Response	Action / Response
Residential receptors	ACTION If Level 1 alarm received: - Consult and review data on SiteEye to determine potential source of alarm. - Review live audio stream on Sentinex to determine if noise source/s is mining noise (such as trucks, dozer, excavators or a droning sound) or non-mining noise (such as birds, insects, and traffic). - Implement noise management controls as required: - Relocating equipment deeper in the pit or sheltered locations; - Reducing the drop height of material while loading to minimise impact noise; - Reversing dozers in 1st gear only; - Cease operation of dozers working in exposed locations (i.e. pre-strip and rehab); - Utilizing rubber tyred dozers in sensitive locations; - Cease operation of ancillary equipment.	ACTION If Level 2 alarm received: - Consult and review data on SiteEye to determine potential source of alarm. - Review live audio stream on Sentinex to determine if noise source/s is mining noise (such as trucks, dozer, excavators or a droning sound) or non-mining noise (such as birds, insects, and traffic). - Implement noise management controls as required: - Relocating equipment deeper in the pit or sheltered locations; - Reducing the drop height of material while loading to minimise impact noise; - Reversing dozers in 1st gear only; - Cease operation of dozers working in exposed locations (i.e. pre-strip and rehab); - Utilizing rubber tyred dozers in sensitive locations; - Cease operation of ancillary equipment; - Cease operations of an excavator and fleet; - Shut down all fleet if all the above does not reduce LF noise at monitoring locations.	N/A

Numbers: UWOC-1689771511-1681
Owner: Environment & Community Coordinator

Status: Approved
Version: 2.0

Effective: 27/03/2023
Review: 1/07/2025

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Uncontrolled unless viewed on the intranet

Number: UWOC-1796953183-3
Owner:

Status:
Version:

Effective:
Review:

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United Wambo Joint Venture
Form

Noise Trigger Action Response Plan (TARP)

Persons Affected	Action / Response	Action / Response	Action / Response
	RESPONSE Mining Supervisor to log details of investigation undertaken and note noise source/s identified on SiteEye and in Mining Supervisors Shift Inspection Report. Mining Supervisor to continue to monitor noise levels	RESPONSE Mining Supervisor to identify problem noise source and modify/cease operations of relevant noise source/s. Only after weather conditions improve and mining noise is below the criterion can shut down operations be restarted. If the suspected source of noise is coming from a coal stockpile dozer(s): all UWV dozers must be parked. If coal stockpile dozer(s) (Wambo) are identified as the noise source, UWV Mining Supervisor is to contact the CHPP Supervisor. Both supervisors will review the noise management systems (SiteEye, Sentinelx) before deciding to modify the CHPP dozers operation – a field observation may be required. After identifying the noise source(s), the mining and CHPP Supervisors may start up equipment again. If weather conditions are licensable: modify/cease operations to determine impact of relevant noise source/s. If all operations have ceased for approximately 15 minutes and only non-mining noise can be heard (such as birds, insects, and traffic), operations can progressively recommence with caution, observing noise levels to identify any increase. Mining Supervisor to log details of investigation undertaken and note noise source/s identified on SiteEye and in Mining Supervisors Shift Inspection Report. Mining Supervisor to continue to monitoring noise levels before restart. Following restart, noise data on SiteEye and real-time audio should be monitored to ensure noise levels remain below criteria.	RESPONSE N/A

Number: UWOC-1469773513-1481
Owner: Environment & Community Coordinator

Status: Approved
Version: 2.0
Uncontrolled unless viewed on the intranet

Effective: 27/03/2023
Review: 1/07/2028

Page 2 of 2

Number: UWOC-1796953183-3
Owner:

Status:
Version:

Effective:
Review:

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Appendix F - Noise Compliance Assessment Methodology

Noise Management Plan - Attended Noise Monitoring			
Section 1 - Monitoring Results		Date:	Time:
Name:	Location:	Period:	
Microphone height:	Distances building facade:		
Noise meter calibration:	/property boundary:		
Meteorological data:			
Temperature:	Wind Speed: at m	Wind Dir.: at m	Humidity:
Cloud cover: /8ths	Fog:	Temp Inv.:	Rain:
Measured Noise Levels			
LAeq,15min:	LA90,15min:	LA10,15min:	
Lamin,15min:	LAmx,15min:	LA1,15min:	
LCeq,15min:	Estimated Cwt - At for mine noise:	Penalty:	
Estimated noise level from the Project and Wambo Mine (ink penalty):			LAeq,15min
Section 2 - Assessment Protocol			
Q1. Is the estimated noise Level from the Project and Wambo Mine:			
1a. Greater than the Project criterion?	LAeq,15min:	Criterion	Yes / No
1b. Greater than the Wambo Mine criterion?	LAeq,15min:	Criterion	Yes / No
NO for both operation => Both operations are compliant with respective criterion, no further action			
YES for <u>one</u> operation => Review 'Operational Status Checklist' for Operation with lower criterion			
YES for <u>both</u> operations => Review 'Operational Status Checklist' for both Operations <u>and</u> go to Q2			
Q2. Is the estimated noise level from Project and Wambo Mine greater than the summation of the Project and Wambo Mine criteria?			
Summation of LAeq,15min Criteria :			Yes / No
If YES Q2 => at least one of the operations is non-compliant with respective criteria. Actions to be implemented:			
- 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			
Contribution from the Project			
LAeq,15min:	Observed sources:		
Criterion:			
LA1,1min:	Observed sources:		
Criterion:			
Project Compliant with:		LAeq,15min: Yes / No	
		LA1,1min: Yes / No	
Contribution from Wambo Mine (CHPP, train loading facility and underground mine)			
LAeq,15min:	Observed sources:		
Criterion:			
LA1,1min:	Observed sources:		
Criterion:			

Operational Status Checklist				
Operational Status Wambo Mine				
Equipment Description	Activity	approx 2019	approx 2023	approx 2028
CHPP	Running	1	1	1
Train Loading Facility	Train Loading	1	1	1
South Bates U/G	Ventilation	1	-	-
	Mining	1	-	-
	Coal Trucks	4	-	-
South Wambo U/G	Ventilation	-	1	1
	Mining	1	-	-
	Coal Trucks	-	4	4

Is Wambo Mine operating with equipment numbers specified above?

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?

Yes / No