



**SUNNYSIDE COAL PROJECT  
ENVIRONMENTAL  
MANAGEMENT SYSTEM**

Document Owner:	Operations Supt
Last Revision Date:	10/2017
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**WHC\_PLN\_SUN\_NOISE MANAGEMENT PLAN**

# **NOISE MANAGEMENT PLAN**



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**ACRONYMS USED THROUGHOUT THIS DOCUMENT**

AS	-	Australian Standard
BOM	-	Bureau of Meteorology
EPA	-	Environment Protection Authority
NMP	-	Noise Management Plan
NMPL	-	Namoi Mining Pty Ltd
PA	-	Project Approval



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**1 INTRODUCTION**

This Noise Management Plan (NMP) has been prepared in accordance with Schedule 3, Condition 9A of Project Approval (PA) 06\_0308 for the Sunnyside Coal Project (Sunnyside). Sunnyside is operated by Namoi Mining Pty Ltd (NMPL), a subsidiary company of Whitehaven Coal Limited. Mining operations at Sunnyside were suspended in late November 2012 and recommenced in late 2017. This document considers the area of land corresponding to the project site boundary for Sunnyside, referred to as the “mine site”.

As illustrated in Figure 1, Sunnyside is located approximately 15km west of Gunnedah. The project layout is shown in Figure 2.



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**LEGEND**

- National Park
- Nature Reserve
- State Conservation Area
- Aboriginal Area
- NSW State Forest
- Local Government Area Boundary
- Mining Lease Boundary
- Mine Site
- Mine Project

Source: Geoscience Australia (2006); NSW Department of Premier and Cabinet, Office of Environment and Heritage (2011) and Minerals NSW (2012)

**SUNNYSIDE COAL MINE**  
 Regional Location

**Figure 1 – Regional Location**



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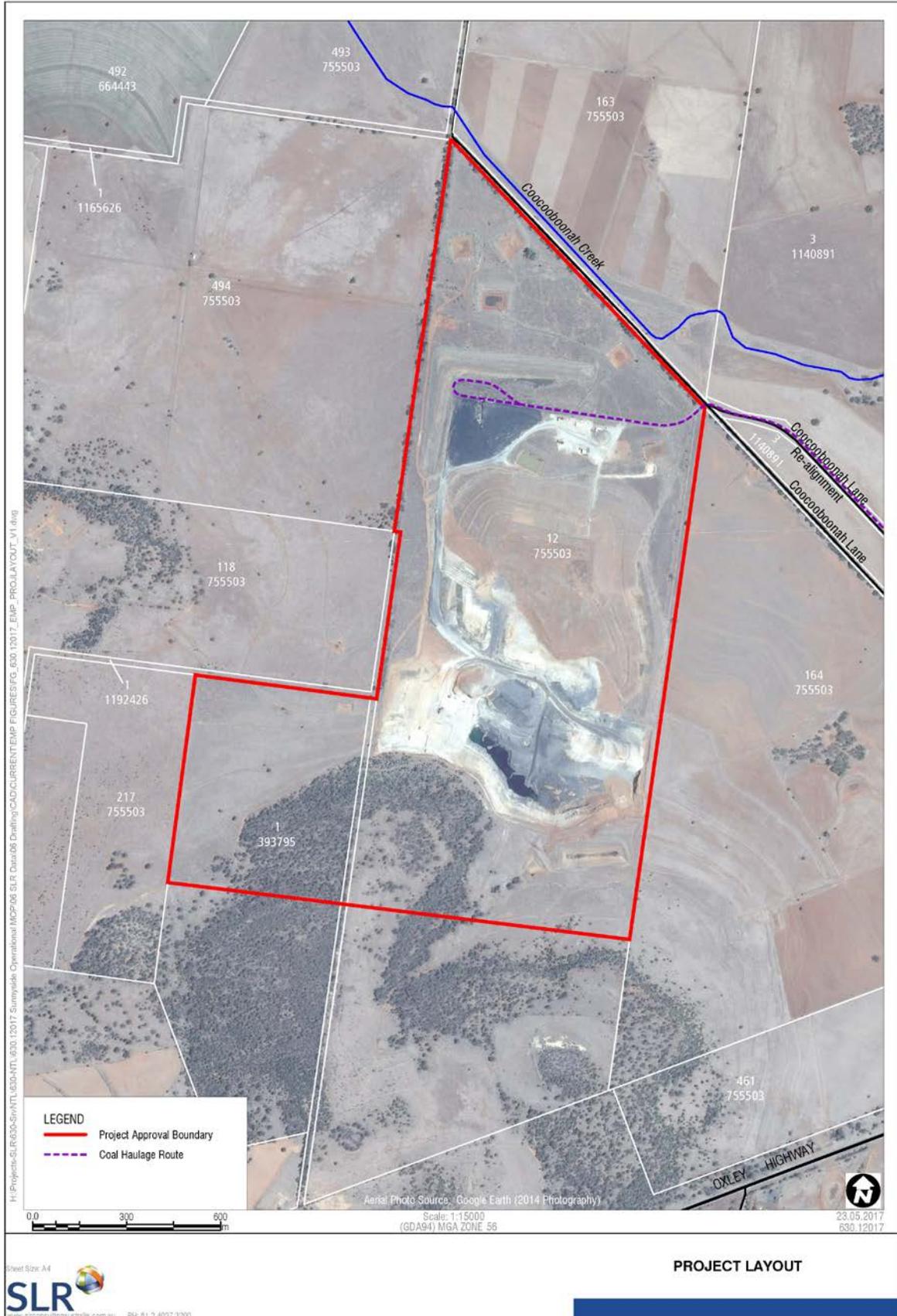


Figure 2 – Project Layout



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**2 NOISE CRITERIA**

The noise criteria, as per Schedule 3, Conditions 2, 3, 4 and 6 of PA 06\_0308, is detailed in Table 1, which should be read in conjunction with the full conditions in PA 06\_0308.

**Table 1 - Noise Criteria**

Location	Day/Evening			
	Construction Noise	Operational Noise	Land Acquisition	Traffic Noise
	LA10(15 minute)	LAeq(15 minute)	LAeq(15 minute)	LAeq(1 hour)
Any residence on, or more than 25% of, any privately owned land (except at "Lilydale")	40	35	40	
Any residence adjacent to Torrens Road				55

These criteria do not apply if there is a written agreement with the landholder of any affected land, and a copy of the agreement has been provided to DP&E and EPA. Further, "Lilydale" is now mine owned.

**3 NOISE CONTROLS AND MANAGEMENT MEASURES**

Schedule 3, Conditions 8 and 9 of PA 06\_0308 are addressed as follows:

- Condition 8(a) – Section 3.2
- Condition 8(b) – Section 3.3
- Condition 8(c) – Section 4.3.2
- Conditions 9(a) to (d) – Secretary acceptance of Annual Review which describes undertakings for the reporting period.

**3.1 Hours of Operation**

Operations are restricted to the following hours, which prevent noise impacts during the night time period:

- Construction – 7am to 6pm each Monday to Friday and 7am to 4pm on Saturdays, and not on Public Holidays.
- Mining Operations – 7am to 10pm each Monday to Friday and 7am to 6pm on Saturdays, and not on Public Holidays.
- Transport of coal – 7am to 6pm Monday to Friday (or between 7am and 8pm during Eastern Summer Time) and between 7am to 4pm on Saturdays, and not on Public Holidays or during AgQuip.



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**3.2 Noise Management and Mitigation**

Table 2 includes the management actions listed in the Statement of Commitments in relation to noise. These actions, in addition to monitoring (Section 4), reporting (Section 4) and implementation of additional mitigation measures (Section 3.3), constitute the noise management system for the site.

**Table 2 - Operational Controls**

Statement of Commitments	Current Status
Seal the re-aligned Coochooboonah Lane and all other upgraded road sections.	Complete.
Regularly maintain all roads comprising the proposed coal transport route under a contribution plan with Gunnedah Shire Council.	Ongoing.
Avoid all noisy activities occurring concurrently during construction particularly before 9:00am when affects of local inversions may be noticeable.	Not applicable.
Construct the out of pit overburden emplacement to provide an acoustic barrier between the open cut and Non-Project related residences.	Complete.
Construct the amenity bund around the coal processing area to act as an acoustic barrier.	Complete.
Adhere strictly to hours of operation, including transport activities, enforced by Mine Management.	Implement upon recommencement of mining.
Use equipment with lower sound power levels in preference to more noisy equipment.	Implement upon recommencement of mining.
Regularly service all equipment used on site to ensure sound power levels remain at or below the levels used in the modelling to assess generated noise levels and compliance with the criteria.	Implement upon recommencement of mining.
Ensure that bulldozers either operate in first gear when reversing on the out-of-pit emplacement (and demonstrating compliance with noise criteria) or suspend operations (when compliance is not achieved with noise criteria).	Implement upon recommencement of mining.
Manage scraper operations to avoid operations during inversion conditions and to reduce the number of scrapers operating from two to one when noise monitoring demonstrates the $L_{Aeq(15minute)}$ criteria of 35dB (A) is or will be exceeded.	Implement upon recommencement of mining.
Confine operations to lower levels of in-pit overburden emplacement to mitigate noise exceedances under adverse wind conditions, i.e. avoid operations on elevated section of the overburden emplacements during inversions and SSW winds.	Implement upon recommencement of mining.



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Fit mid frequency broadband reversing beepers to mobile mining equipment, decreasing sound power levels by 2dB(A) to 3dB(A).	Implement upon recommencement of mining.
Ensure the on-site road network is well maintained to limit body noise from empty trucks travelling on internal roads.	Implement upon recommencement of mining.
Maintain dialogue with neighbours and local community to ensure any concerns over construction, operational or transport noise are addressed.	Implement upon recommencement of mining.
Establish a noise monitoring program, in consultation with the EPA, prior to the commencement of the Project, designed to initially validate the predictions arising from the modelling and then record noise levels against the Project noise criteria.	Noise monitoring undertaken in accordance with Noise Management Plan and EPL.
Document all proposed noise management strategies formally in a Noise Management Plan.	This document.
Monitor construction noise near "Lilydale" when the realignment of Coccooboonah Land is being undertaken.	Not applicable.
Conduct operational noise monitoring monthly for the first six months of mining operations, reverting to quarterly for the remainder of the year.	Noise monitoring undertaken in accordance with Noise Management Plan.
Instruct all truck drivers to avoid the use of engine brakes when approaching the Project Site entrance and coal transport route intersections and to be mindful when accelerating.	Implement upon recommencement of mining.
Adhere strictly to approved hours of coal transportation.	Implement upon recommencement of mining.

In addition to the measures detailed in Table 2, predictive meteorological forecasting, through reference to a minimum weekly Bureau of Meteorology (BOM) forecasts, will allow site to plan to adapt operations as required.

### **3.3 Additional Mitigation Measures**

If noise levels from the mine exceed the levels outlined in Section 2, as measured from attended noise monitoring events, advice will be sought from the acoustic consultant to verify the source of the elevated noise and identify options to address noise related impacts. Such actions may include:

- Additional testing to confirm the elevated noise is systemic in nature;
- Changes to operational procedure or equipment type; and
- The installation of sound attenuation measures to plant and equipment, where necessary.



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Where it is identified that the above options cannot achieve compliance with noise criteria, NMPL will undertake negotiations with the affected landowners with a view to entering into private agreements.

Schedule 3, Conditions 4, 5 and 7 of PA 06\_0308 outline landholder's rights in relation to land acquisition and additional noise mitigation measures.

Schedule 4 of PA 06\_0308 details notification and independent review requirements.

## 4 MONITORING AND REPORTING

### 4.1 Monitoring Program

Attended noise monitoring will be undertaken on a quarterly basis by an independent acoustic consultant. All attended noise monitoring will be conducted in accordance with the NSW Industrial Noise Policy, AS 1055.1-1997 'Acoustics – Description and Measurement of environmental noise – General Procedures', and will expressly monitor the modification factors referred to in the NSW Industrial Noise Policy. Attended noise monitoring will be undertaken during day and evening periods.

The following notes from Schedule 3, Condition 3 must be considered:

Notes:

- To determine compliance with the  $L_{Aeq}(15 \text{ minute})$  limit, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the EPA may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- These limits apply under meteorological conditions of:
  - wind speeds of 3 m/s at 10 metres above ground level; or
  - up to 3°C/100 m temperature inversion strength for all receivers, plus a 2 m/s source-to-receiver component drainage flow wind at 10 metres above ground level for those receivers where applicable.

Alternative means of measurement are not proposed, however will be implemented in consultation with EPA and DP&E if required.

Based on previous experience at the site when operational, the monitoring program is considered adequate to evaluate and report on the effectiveness of the noise management system, compliance against noise criteria and compliance against noise operating conditions.

### 4.2 Monitoring Locations

Monitoring will be undertaken in accordance with Schedule 3, Condition 3 notes in PA 06\_0308.

Monitoring is to be conducted at the properties listed in Table 3 and shown in Figure 3. For monitoring purposes the locations presented in Table 3 are used to determine compliance as representative locations of receiver impact and irrespective of land ownership, with the exception of Plainview which is under private agreement.



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**Table 3 - Noise Monitoring Locations**

<b>Property</b>
Illili
Ferndale
Plainview
Glendower
Innisvale
Torrens Lane (for road noise)



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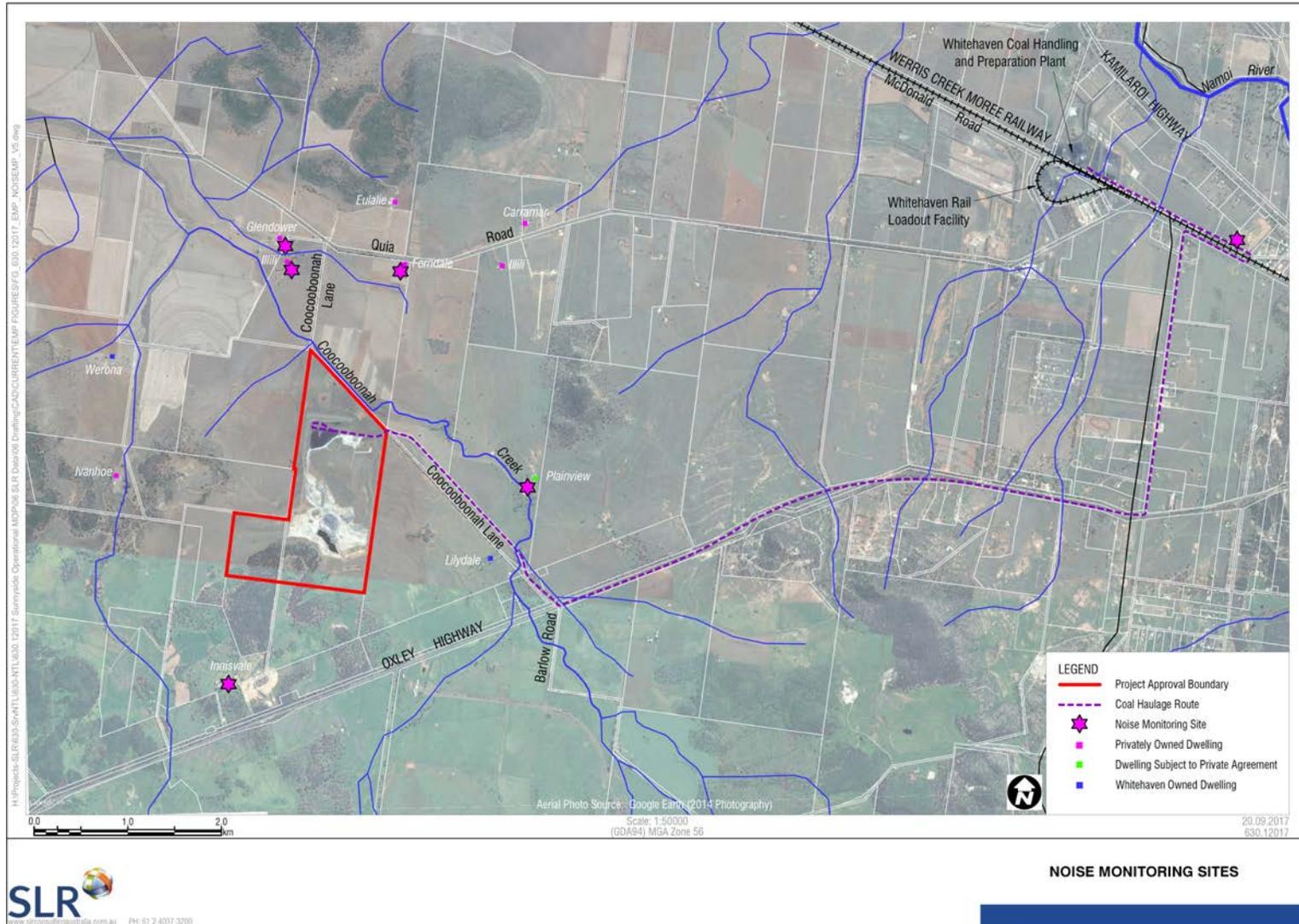


Figure 3 - Noise Monitoring Locations



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**4.3 Reporting**

4.3.1 Noise Incidents

A noise incident is considered to be an exceedance of the criteria listed in Table 1, as measured by attended noise monitoring.

Incident reporting will be undertaken in accordance with Conditions 5(3) and 5(4) of PA 06\_0308.

4.3.2 General

A review of noise management and monitoring will be included in the Annual Review, in accordance with the requirements of Condition 5(5) of PA 06\_0308.

**5 DOCUMENT REVIEW**

This document will be reviewed in accordance with the requirements of Condition 5(5A) of PA 06\_0308.