Clean TeQ Sunrise Project
Noise Management Plan
2020-CTEQ-0000-66AA-0007

29 May 2020

REVISION 3

CONTENTS

FIGURES

TABLES

APPENDICES

1. INTRODUCTION

The Clean TeQ Sunrise Project (the Project) is situated near the village of Fifield, approximately 350 kilometres (km) west-northwest of Sydney, in New South Wales (NSW) (Figure 1).

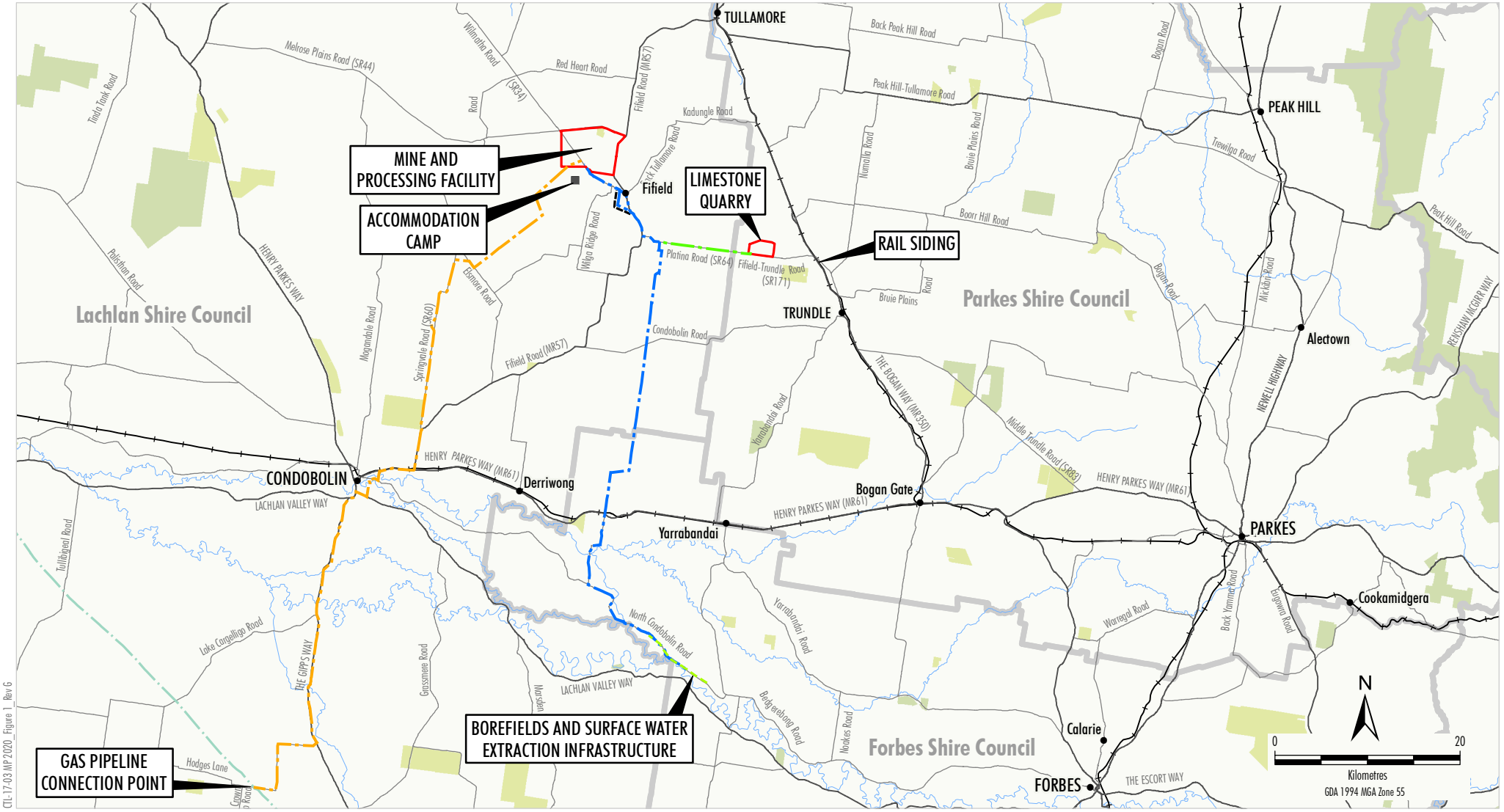
The Project includes the establishment and operation of the following:

- mine (including the processing facility);
- limestone quarry;
- rail siding;
- gas pipeline;
- borefields, surface water extraction infrastructure and water pipeline;
- accommodation camp; and
- associated transport activities and transport infrastructure (e.g. the Fifield Bypass, road and intersection upgrades).

Clean TeQ Sunrise Pty Ltd owns the rights to develop the Project. Clean TeQ Sunrise Pty Ltd is a wholly owned subsidiary of Clean TeQ Holdings Limited (Clean TeQ).

Development Consent DA 374-11-00 for the Project was issued under Part 4 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) in 2001. Six modifications to Development Consent DA 374-11-00 have since been granted under the EP&A Act:

- 2005 – to allow for an increase of the autoclave feed rate, limestone quarry extraction rate and adjustments to ore processing operations;
- 2006 – to allow for the reconfiguration of the borefields;
- 2017 – to allow for the production of scandium oxide;
- 2017 – to amend hazard study requirements;
- 2018 – to relocate the accommodation camp; and
- 2018 – to implement opportunities to improve the overall efficiency of the Project.



LEGEND

- National Park/Conservation Area
- State Forest
- Local Government Boundary
- Railway
- Existing Gas Pipeline
- Mining Lease Boundary (ML)
- Fifield Bypass
- Gas Pipeline
- Water Pipeline
- Limestone Quarry Water Pipeline
- Borefield Infrastructure Corridor

Source: Black Range Minerals (2000); Clean TeQ (2017, 2018); NSW Department of Industry (2020); NSW Land & Property Information (2017); Office of Environment and Heritage NSW (2017)

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CLEAN TEQ SUNRISE PROJECT

Regional Location

Figure 1

CTL-17-03 MP 2020_Figure 1_ Rev 6

1.1 Purpose and Scope

This Noise Management Plan (NMP) has been prepared by Clean TeQ to satisfy the requirements of Conditions 9 and 10, Schedule 3 of Development Consent DA 374-11-00 (Table 1).

Table 1 – Specific Development Consent Conditions

Project Development Consent DA 374-11-00 Schedule 3	Section Where Addressed in this NMP
Noise Management Plan **9.** *Prior to carrying out any development under this consent after 6 May 2017, the Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:*	This NMP
a) be prepared in consultation with the EPA;	Section 2
b) include management of construction, traffic and operational noise;	Section 7
c) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions of this consent. Including measures to reduce noise emissions from the mine during night time operations under adverse meteorological conditions;	Section 7
d) include a noise monitoring program for evaluating and reporting on: • *compliance against the noise criteria in this consent;* • *compliance against the noise operating conditions; and*	Section 11.1
e) defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.	Section 6
10. *The Applicant must implement the approved Noise Management Plan for the development.*	-

Note: EPA refers to the NSW Environment Protection Authority.

On 5 July 2018, the Secretary of the Department of Planning and Environment (the Secretary) approved the progressive submission of environmental management plans for the Project in accordance with Condition 12, Schedule 2 of Development Consent DA 374-11-00. The scope of this NMP is specifically related to the following initial Project construction activities:

- development of the mine, including:
  - site establishment and earthworks;
  - construction of site access roads and haul roads;
  - processing facility earthworks;
  - establishment of temporary facilities required for construction activities (e.g. offices, lay down areas, communications infrastructure);
  - construction of the mine infrastructure area including the offices, workshops, warehouse, laboratory and amenities buildings, fuel storage areas, potable water treatment plant and car parking facilities;
  - construction of the tailings storage facility and evaporation pond;
  - construction of water management infrastructure including the raw water dam, water storage dam and sediment dams;
  - construction and operation of the concrete batch plant;
  - development of gravel and clay borrow pits (including blasting and crushing);

  - installation of appropriate fencing and barriers to ensure public safety and security for mining and construction; and
  - other associated minor infrastructure, plant, equipment and activities.
- development and operation of the accommodation camp;
- development and operation of the borefields, surface water extraction infrastructure and water pipeline; and
- road upgrades.

The general arrangement of the mine and processing facility during the initial construction activities is shown on Figure 2.

1.2 Structure of this Noise Management Plan

The remainder of this NMP is structured as follows:

Section 2: Describes the review and update of this NMP.

Section 3: Outlines the statutory requirements applicable to this NMP.

Section 4: Outlines the existing environment including baseline data and sensitive receptors in the vicinity of the Project.

Section 5: Outlines the relevant criteria applicable to the Project.

Section 6: Details the specific performance indicators Clean TeQ proposes to use to guide the implementation of the noise management measures and judge their performance.

Section 7: Describes the management and control measures to be implemented, where relevant, at the Project.

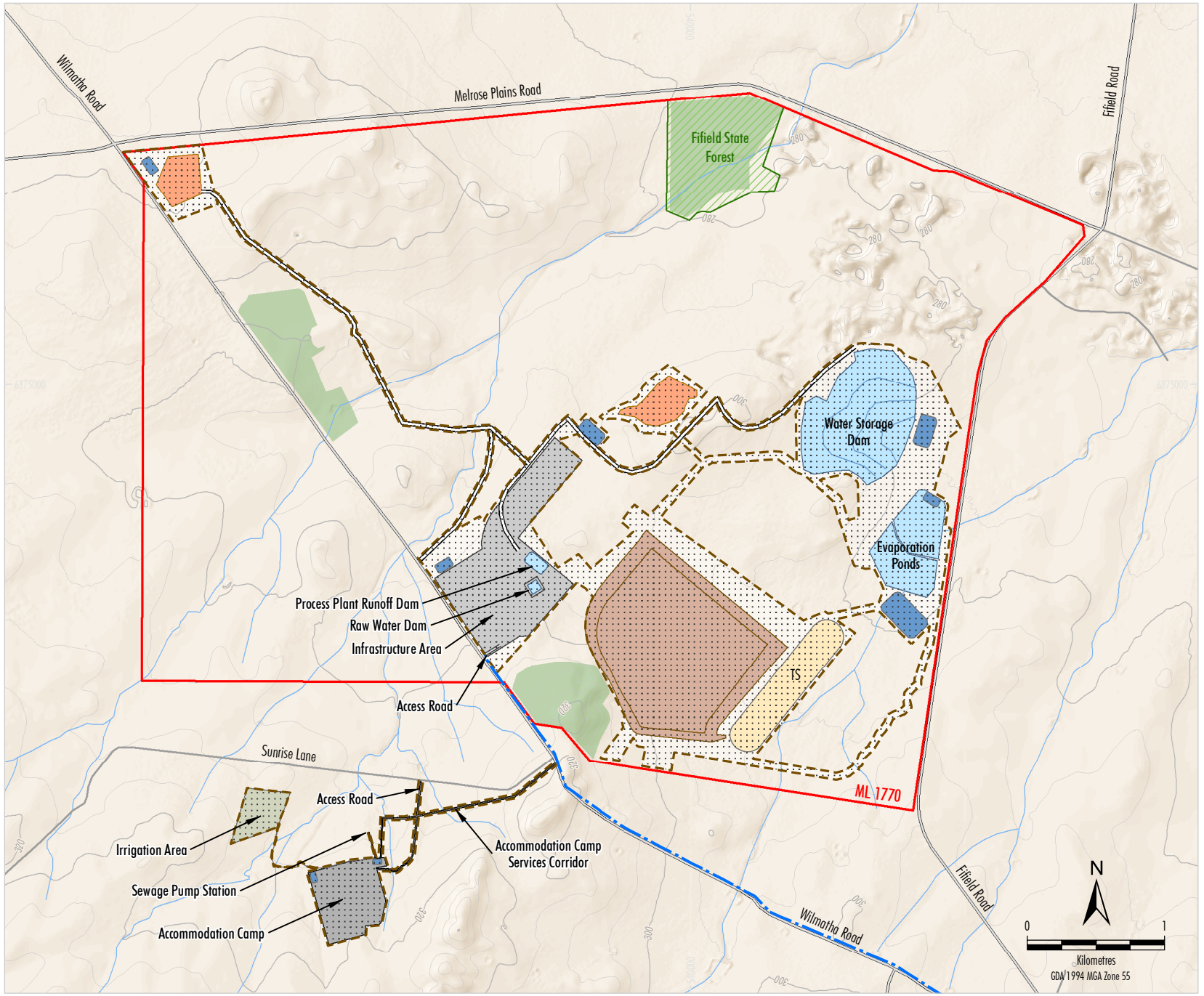
Section 8: Outlines the noise monitoring program components including locations, frequency and parameters.

Section 9: Provides a contingency plan to manage unprecedented impacts and their consequences.

Section 10: Describes the program to review and report on the effectiveness of management measures and improvement of environmental performance.

Section 11: Describes the protocol for management and reporting of incidents, complaints and non-compliances with statutory requirements.

Section 12: Provides references cited in this NMP.



LEGEND

- State Forest
- Mining Lease Boundary (ML)
- Initial Construction Activities
- Surface Development Area
- Tailings Storage Facility
- Borrow Pit
- TS Topsoil Stockpile
- Infrastructure Area
- Water Storage
- Sediment Dam
- Existing Open Woodland to be Maintained
- Water Pipeline

Note: The sediment dam located in the footprint of the evaporation ponds will be used during construction of the evaporation ponds and will be decommissioned once the evaporation ponds are constructed.

Source: Black Range Minerals (2000); Clean TeQ (2017, 2019); NSW Department of Industry (2020); NSW Land & Property Information (2017)

CLEAN TEQ SUNRISE PROJECT

Mine and Processing Facility General Arrangement (Initial Construction Activities)

Figure 2

2. NOISE MANAGEMENT PLAN REVIEW AND UPDATE

The previous version of this NMP was provided to the NSW EPA for the purposes of consultation in accordance with Condition 9(a), Schedule 3 of Development Consent DA 374-11-00. A letter was received from the EPA on 25 October 2018 stating the EPA had no specific comments regarding the content of this NMP.

Following receipt of this letter, minor revisions have been made to reflect the determination of Modification 4 in December 2018. With the agreement of the Secretary and consistent with Condition 12, Schedule 2 of Development Consent 374-11-00, this NMP has not been re-submitted to the EPA for comment due to the minor nature of these revisions.

Consistent with the Secretary's approval for the progressive submission of environmental management plans on 5 July 2018, this NMP would be re-submitted and approved prior to the commencement of construction of the limestone quarry, rail siding and gas pipeline, as well as prior to the commencement of mining operations.

In accordance with Condition 6, Schedule 5 of Development Consent DA 374-11-00, this NMP will be reviewed, and if necessary revised (to the satisfaction of the Secretary), within three months of the submission of:

- an Annual Review (Condition 5, Schedule 5);
- an incident report (Condition 8, Schedule 5);
- an independent environmental audit (Condition 10, Schedule 5); or
- any modification to the conditions of Development Consent DA 374-11-00 (unless the conditions require otherwise).

The reviews would be undertaken to ensure the NMP is updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the Project.

Within four weeks of conducting a review of the NMP, the Secretary will be advised of the outcomes of the review and any revised documents submitted to the Secretary for approval.

If agreed with the Secretary, a revision to the NMP required under Development Consent DA 374-11-00 may be prepared without undertaking consultation with all parties nominated under the relevant condition of Development Consent DA 374-11-00.

The revision status of this NMP is indicated on the title page of each copy. The approved NMP will be made publicly available on the Clean TeQ website, in accordance with Condition 12, Schedule 5 of Development Consent DA 374-11-00.

3. STATUTORY OBLIGATIONS

Clean TeQ's statutory obligations relevant to noise management are contained in:

- the conditions of Development Consent DA 374-11-00;
- relevant licences and permits, including conditions attached to mining leases; and
- other relevant legislation.

Obligations relevant to this NMP are described below.

3.1 Development Consent DA 374-11-00

The conditions of Development Consent DA 374-11-00 relevant to the content and structure of this NMP are described below. A comprehensive list of all conditions in Development Consent DA 374-11-00 relevant to noise is provided in Appendix A.

3.1.1 Noise Management Plan Requirements

Condition 9, Schedule 3 of Development Consent DA 374-11-00 requires the preparation of a NMP (refer Table 1).

3.1.2 Management Plan (General) Requirements

Condition 4, Schedule 5 of Development Consent DA 374-11-00 outlines the general management plan requirements that are also applicable to the preparation of this NMP. Table 2 presents these requirements and indicates where each is addressed within this NMP.

Table 2 – Management Plan (General) Requirements

Project Development Consent DA 374-11-00 Schedule 5	**NMP Section**
Management Plan Requirements	
4. *The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, are consistent with other plans prepared for other stakeholders, and include:*	
(a) detailed baseline data;	Section 4.1
(b) a description of: • *the relevant statutory requirements (including any relevant approval, licence or lease conditions);*	Section 3
• *any relevant limits or performance measures/criteria;*	Section 5
• *the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;*	Section 6
(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Section 7
(d) a program to monitor and report on the: • *impacts and environmental performance of the development;* • *effectiveness of any management measures (see c above);*	Sections 8, 10 and 11
(e) a contingency plan to manage any unpredicted impacts and their consequences;	Section 9
(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 10

Table 2 – Management Plan (General) Requirements (Continued)

Project Development Consent DA 374-11-00 Schedule 5	NMP Section
(g) a protocol for managing and reporting any: • *incidents;* • *complaints;* • *non-compliances with statutory requirements; and* *(h) exceedances of the impact assessment criteria and/or performance criteria; and*	Section 11.1 Section 11.2 Section 11.3 Sections 9 and 11
(i) a protocol for periodic review of the plan. *Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.*	Section 10

3.2 Licences, Permits and Leases

In addition to the requirements of Development Consent DA 374-11-00, all activities at or in association with the Project will be undertaken in accordance with the following licences, permits and leases which have been issued or are pending issue:

- Mining Lease 1770 issued by the NSW Minister for Resources under the NSW *Mining Act, 1992*.
- Mining Operations Plan(s) submitted and approved by the NSW Division of Resources and Geoscience.
- Environment Protection Licence (EPL) 21146 issued under Part 3 of the *NSW Protection of the Environment Operations Act, 1997* (POEO Act).
- Water supply works, water use approvals and water access licences (WALs) issued by Department of Industry – Water under the NSW *Water Management Act 2000* including:
  - Water Supply Works Approval 70CA614098 for the Project borefields.
  - WAL 32068 in the Upper Lachlan Alluvial Groundwater Source (Upper Lachlan Alluvial Zone 5 Management Zone) for 3,154 share components under the *Water Sharing Plan for the Lachlan Unregulated and Alluvial Water Sources 2012*.
  - WAL 39837 in the Upper Lachlan Alluvial Groundwater Source (Upper Lachlan Alluvial Zone 5 Management Zone) for 766 share components under the *Water Sharing Plan for the Lachlan Unregulated and Alluvial Water Sources 2012*.
  - WAL 28681 in the Lachlan Fold Belt Murray-Darling Basin (MDB) Groundwater Source (Lachlan Fold Belt MDB [Other] Management Zone), for 243 share components under the *Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2011*.
  - WAL 6679 for 123 share components (General Security) under the *Water Sharing Plan for the Lachlan Regulated River Water Source 2016*.
- Aboriginal Heritage Impact Permits (AHIPs) (AHIP #C0003049 and AHIP #C0003887) issued by the Office of Environment and Heritage under the NSW *National Parks and Wildlife Act, 1974*.
- Mining and workplace health and safety related approvals granted by the NSW Department of Industry and SafeWork NSW.

3.3 Other Legislation

Clean TeQ will conduct the Project consistent with the requirements of Development Consent DA 374-11-00 and any other legislation applicable to an approved Part 4 Project under the EP&A Act.

In addition to the statutory obligations described in Sections 3.1 and 3.2, the following NSW Acts (and their Regulations) may be applicable to the conduct of the Project:

- *Aboriginal Land Rights Act, 1983;*
- *Biodiversity Conservation Act, 2016;*
- *Biosecurity Act, 2015;*
- *Crown Land Management Act, 2016;*
- *Contaminated Land Management Act, 1997;*
- *Dams Safety Act, 2015;*
- *Dangerous Goods (Road and Rail Transport) Act, 2008;*
- *Energy and Utilities Administration Act, 1987;*
- EP&A Act;
- *Fisheries Management Act, 1994;*
- *Forestry Act, 2012;*
- *Mining Act, 1992;*
- *National Parks and Wildlife Act, 1974;*
- *Pipelines Act, 1967;*
- POEO Act;
- *Rail Safety (Adoption of National Law) Act, 2012;*
- *Roads Act, 1993;*
- *Water Act, 1912;*
- *Water Management Act, 2000;*
- *Work Health and Safety Act, 2011; and*
- *Work Health and Safety (Mines and Petroleum Sites) Act, 2013.*

Other guidelines and standards that were considered during the preparation of this NMP include, but are not limited to:

- *Noise Policy for Industry* (NPfI) (EPA, 2017);
- *Interim Construction Noise Guideline* (ICNG) (Department of Environment and Climate Change [DECC], 2009);
- *NSW Road Noise Policy* (RNP) (Department of Environment, Climate Change and Water, 2011);
- *Voluntary Land Acquisition and Mitigation Policy* (DP&E, 2018);

- *Australian Standard (AS) 2659.1-1998 Guide to the use of sound measuring equipment – Portable sound level meters;*
- *AS 1259.2-1990 Acoustics – Sound level meters Integrating – Averaging;*
- *AS 2012.1-1990 Acoustics – Measurement of airborne noise emitted by earth-moving machinery and agricultural tractors – Stationary test condition Determination of compliance with limits for exterior noise; and*
- *AS 1055.1-1997 Acoustics – Description and measurement of environmental noise General procedures.*

Commonwealth Acts which may also be applicable to the conduct of the Project include:

- *Environment Protection and Biodiversity Conservation Act, 1999; and*
- *Native Title Act, 1993.*

Relevant licences or approvals required under these Acts will be obtained as required.

4. EXISTING ENVIRONMENT

4.1 Baseline Data

4.1.1 Environmental Impact Statement Rating Background Noise Levels (1999)

The *Syerston Nickel Cobalt Project Environmental Impact Statement* (the EIS) prepared in 2000 (Black Range Minerals, 2000) included unattended background noise survey data at seven locations representative of residential receivers. The surveys were undertaken between 11 November and 25 November 1999. Representative background noise levels were determined for the EIS using the 90th percentile of measured L_{A90} noise levels. The background noise levels adopted in the EIS are provided in Table 3.

The monitoring sites are presented on Figure 3.

Table 3 – Environmental Impact Statement L_{A90} Rating Background Noise Levels (November 1999)

Monitoring Location	$L_{A90(15minute)}$ Rating Background Noise Level (dBA)			
	Mine and Processing Facility, Rail Siding and Heavy Vehicle Transport Route			Quarry
	Daytime 7.00 am to 6.00 pm	Evening 6.00 pm to 10 pm	Night-time 10.00 pm to 7.00 am	Daytime 7.00 am to 5.00 pm
BG1 – "Wanda Bye"	34	36	28	34
BG2 – "Sunrise"	35	35	28	35
BG3 – "Currajong Park"	35	28	27	34
BG4 – "Warra Wandi"	31	34	30	31
BG5 – "Reas Falls" [1]	32	30	26	32
BG6 – "Danganmore" [1]	31	31	26	31
BG7 – Cnr Slee Street, Fifield	31	29	26	32

Source: Black Range Minerals (2000).

dBA = A-weighted decibels

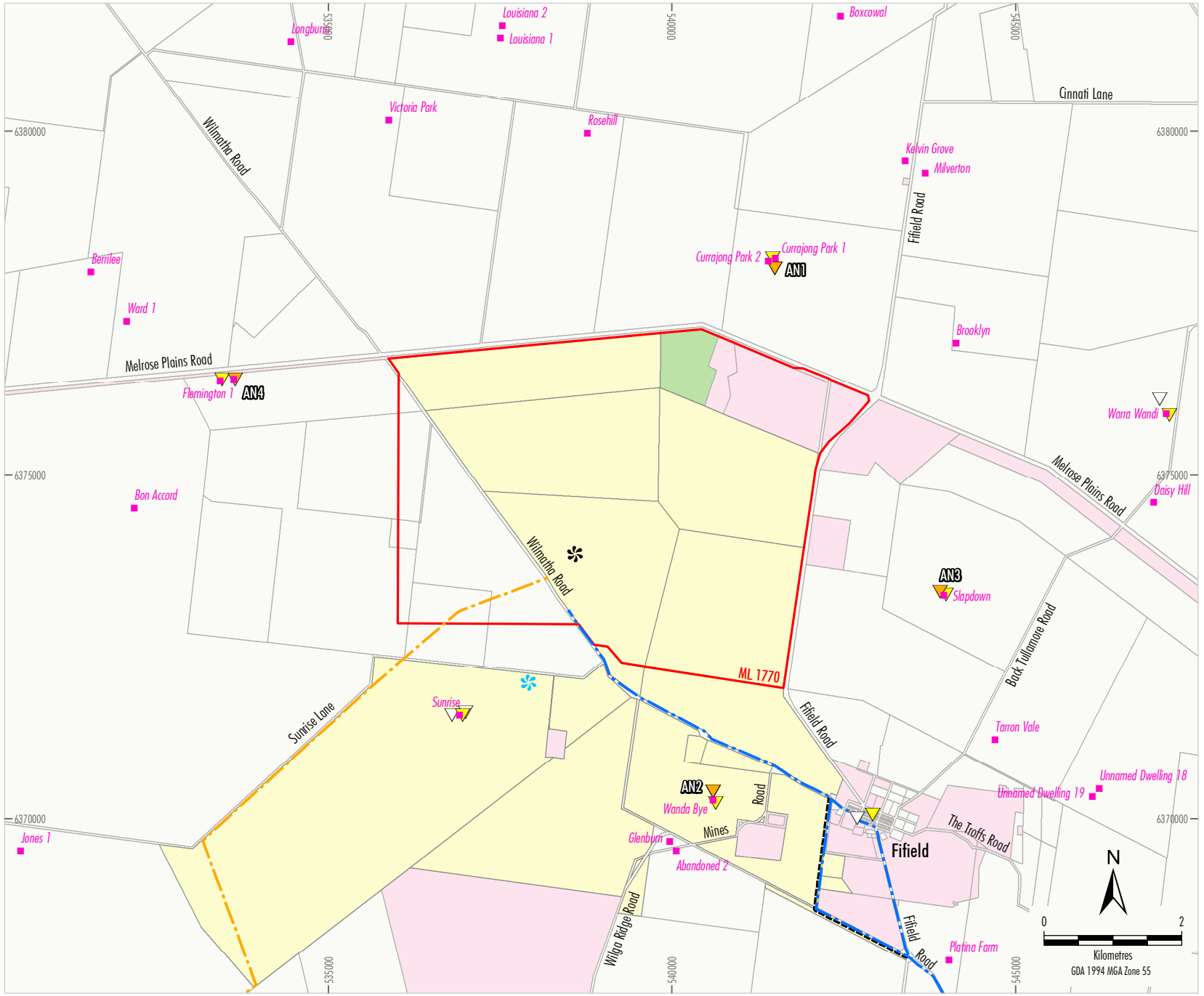
[1] These monitoring sites are representative of sensitive receivers in the vicinity of the limestone quarry and are therefore not relevant to initial construction activities. These sites are not shown on Figure 3.

4.1.2 Environmental Impact Statement Attended Noise Surveys (1999)

The EIS prepared in 2000 (Black Range Minerals, 2000) included attended background noise survey data at the same seven locations representative of residential receivers.

At each monitoring location, 15 minute operator-attended noise surveys were conducted at night during the deployment and collection of the noise loggers on 11 November and 24/25 November 1999, respectively.

The operator-attended noise measurements were conducted with a precision integrating sound level meter in order to qualify the results obtained with the unattended noise loggers. During the attended noise surveys, the operator identified the character and duration of acoustically significant ambient noise sources. Where possible, the operator quantified local traffic flow and made a qualitative assessment of the prevailing weather conditions.



CLEAN TEQ SUNRISE PROJECT

Noise Monitoring Sites

Figure 3

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The operator-attended noise survey results confirmed the unattended noise monitoring results. The operator-attended monitoring results are detailed in the EIS (Black Range Minerals, 2000).

4.1.3 Modification 4 Rating Background Noise Levels (2016)

The Modification 4 Noise and Blasting Assessment prepared in 2017 (Renzo Tonin and Associates, 2017) utilised unattended noise monitoring data collected in December 2016 at seven locations representative of residential receivers. The rating background levels measured for the Modification 4 Environmental Assessment are provided in Table 4.

The monitoring sites are presented on Figure 3.

Based on the background noise monitoring described in Table 4, a rating background level of 30 dBA has been conservatively adopted for all receivers, for all periods.

Table 4 – Modification 4 L_{A90} Rating Background Noise Levels (December 2016)

Monitoring Location	$L_{A90(15minute)}$ Rating Background Noise Level (dBA)		
	Daytime 7.00 am to 6.00 pm	**Evening 6.00 pm to 10 pm**	**Night-time 10.00 pm to 7.00 am**
L1 – 9 Wilmatha Fifield Rd	26	29	22
L2 – "Slapdown"	25	26	21
L3 – "Wanda Bye"	34	30	25
L4 – "Warra Wandi"	27	30	27
L5 – "Currajong Park"	28	26	21
L6 – "Sunrise"	27	26	22
L7 – "Flemington" [1]	37	40	37

Source: Renzo Tonin and Associates (2017).

1 Affected by insect noise throughout the monitoring period.

4.1.4 Modification 4 Attended Noise Surveys (2016)

The Modification 4 Noise and Blasting Assessment prepared in 2017 (Renzo Tonin and Associates, 2017) included attended background noise survey data at the same seven locations representative of residential receivers.

At each monitoring location, 15 minute operator-attended noise surveys were conducted during the day, evening and night during the collection of the noise loggers on 14/15 December 2016, where weather permitted.

Due to inclement weather conditions during the deployment of the noise loggers and some of the time during collection of the noise loggers, operator-attended measurements could not be undertaken and the audio recorded by the loggers was analysed for a period of clear weather (similar to conducting a noise survey).

The short-term noise survey results (both operator-attended and audio recording analysis) are presented in Tables 5 and 6 for 7/8 December and 14/15 December 2016, respectively.

Table 5 – Modification 4 Short-term Noise Survey Results (7/8 December 2016)

Monitoring Location	Period	Start Time	Primary Noise Descriptor (dBA re 20 µPa)		Description of Noise Emission Sources
			L_{A90}	L_{Aeq}	
L1 – 9 Wilmatha Fifield Rd	Day	12.00 pm 7 December [1]	26	36	Background noise dominated by traffic on Wilmatha Fifield Road and environmental noise within the Township.
		12.15 pm 7 December [1]	28	41	
	Evening	9.00 pm 7 December [1]	35	48	
		9.15 pm 7 December [1]	34	42	
	Night	2.30 am 8 December [1]	22	31	
		2.45 am 8 December [1]	22	39	
L2 – "Slapdown"	Day	12.00 pm 7 December [1]	29	32	Background noise dominated by environmental noise, distant harvesting activities and distant traffic.
		12.15 pm 7 December [1]	30	38	
	Evening	9.00 pm 7 December [1]	31	42	
		9.15 pm 7 December [1]	30	34	
	Night	2.30 am 8 December [1]	20	37	
		2.45 am 8 December [1]	19	34	
L3 – "Wanda Bye"	Day	12.00 pm 7 December [1]	40	42	Background noise dominated by environmental noise and distant traffic. On site sheep farming activities occur during the day time.
		12.15 pm 7 December [1]	39	42	
	Evening	9.00 pm 7 December [1]	30	38	
		9.15 pm 7 December [1]	30	35	
	Night	2.30 am 8 December [1]	25	28	
		2.45 am 8 December [1]	25	27	
L4 – "Warra Wandi"	Day	12.00 pm 7 December [1]	33	47	Background noise dominated by environmental noise and traffic on Fifield Kadungle Rd.
		12.15 pm 7 December [1]	32	50	
	Evening	9.00 pm 7 December [1]	37	38	
		9.15 pm 7 December [1]	37	38	
	Night	2.30 am 8 December [1]	27	30	
		2.45 am 8 December [1]	26	28	
L5 – "Currajong Park"	Day	12.00 pm 7 December [1]	29	52	Background noise dominated by environmental noise and distant traffic. On site sheep farming activities occur during the day time.
		12.15 pm 7 December [1]	29	48	
	Evening	9.00 pm 7 December [1]	24	45	
		9.15 pm 7 December [1]	24	50	
	Night	2.30 am 8 December [1]	20	45	
		2.45 am 8 December [1]	20	44	
L6 – "Sunrise"	Day	12.00 pm 7 December [1]	29	35	Background noise dominated by environmental noise and distant traffic.
		12.15 pm 7 December [1]	28	42	
	Evening	9.00 pm 7 December [1]	26	31	
		9.15 pm 7 December [1]	26	31	
	Night	2.30 am 8 December [1]	21	24	
		2.45 am 8 December [1]	21	28	
L7 – "Flemington" [1]	Day	12.00 pm 7 December [1]	36	39	Background noise dominated by environmental noise and traffic on Melrose Gillenbine Rd. Presence of insect noise throughout measurement periods.
		12.15 pm 7 December [1]	38	42	
	Evening	9.00 pm 7 December [1]	38	40	
		9.15 pm 7 December [1]	37	39	
	Night	2.30 am 8 December [1]	34	35	
		2.45 am 8 December [1]	34	35	

Source: Renzo Tonin and Associates (2017).

[1] Analysis completed on recorded audio.

Table 6 – Modification 4 Short-term Noise Survey Results (14/15 December 2016)

Monitoring Location	Period	Start Time	Primary Noise Descriptor (dBA re 20 µPa)		Description of Noise Emission Sources
			L_{A90}	L_{Aeq}	
L1 – 9 Wilmatha Fifield Rd	Day	5.30 pm 14 December	39	46	Background noise dominated by traffic on Wilmatha Road and Fifield Road and environmental noise within the Township. Light rain during evening measurement period.
		5.45 pm 14 December	39	49	
	Evening	6.00 pm 14 December	34	46	
		6.15 pm 14 December	35	43	
	Night	1.00 am 15 December	24	42	
L2 – "Slapdown"	Day	11.00 am 15 December [1]	29	37	Background noise dominated by environmental noise, distant harvesting activities and distant traffic.
		11.15 am 15 December [1]	29	39	
	Evening	9.45 pm 14 December	34	35	
	Night	10.00 pm 14 December	34	35	
L3 – "Wanda Bye"	Day	11.00 am 15 December [1]	37	42	Background noise dominated by environmental noise and distant traffic. On site sheep farming activities occur during the day time. Light rain during evening measurement period.
		11.15 am 15 December [1]	38	42	
	Evening	6.45 pm 14 December	32	42	
		7.00 pm 14 December	32	45	
	Night	12.30 am 15 December	29	34	
L4 – "Warra Wandi"	Day	11.00 am 15 December [1]	26	43	Background noise dominated by environmental noise and traffic on Fifield Kadungle Rd. Light rain during evening measurement period.
		11.15 am 15 December [1]	29	46	
	Evening	9.15 pm 14 December	42	44	
	Night	10.30 pm 14 December	43	49	
L5 – "Currajong Park"	Day	11.00 am 15 December [1]	29	38	Background noise dominated by environmental noise and distant traffic. On site sheep farming activities occur during the day time. Light rain during evening measurement period.
		11.15 am 15 December [1]	29	38	
	Evening	8.45 pm 14 December	24	59	
	Night	11.00 pm 14 December	22	45	
L6 – "Sunrise"	Day	11.00 am 15 December [1]	28	44	Background noise dominated by environmental noise and distant traffic. Light rain during evening measurement period.
		11.15 am 15 December [1]	34	51	
	Evening	7.30 pm 14 December	36	46	
		7.45 pm 14 December	33	39	
	Night	12.00 am 15 December	35	37	
L7 – "Flemington" [1]	Day	11.00 am 15 December [1]	40	42	Background noise dominated by environmental noise and traffic on Melrose Gillenbine Rd. Presence of insect noise throughout measurement periods. Light rain during evening measurement period.
		11.15 am 15 December [1]	40	42	
	Evening	8.15 pm 14 December	37	42	
	Night	11.30 pm 14 December	40	44	

Source: Renzo Tonin and Associates (2017).

[1] Analysis completed on recorded audio.

4.2 Meteorology Conditions

An on-site meteorological monitoring station was installed in September 1998 to provide baseline data for the Project EIS and was removed in 1999.

A new meteorological station was installed in November 2018 (Figure 3). At the time of writing this NMP, there was insufficient data to generate representative meteorological conditions for the mine site.

The closest Bureau of Meteorology Station automatic weather station (AWS) site, Condobolin Airport AWS, located approximately 40 km south-southwest, has been reviewed to determine if the recorded data would be representative of the mine site.

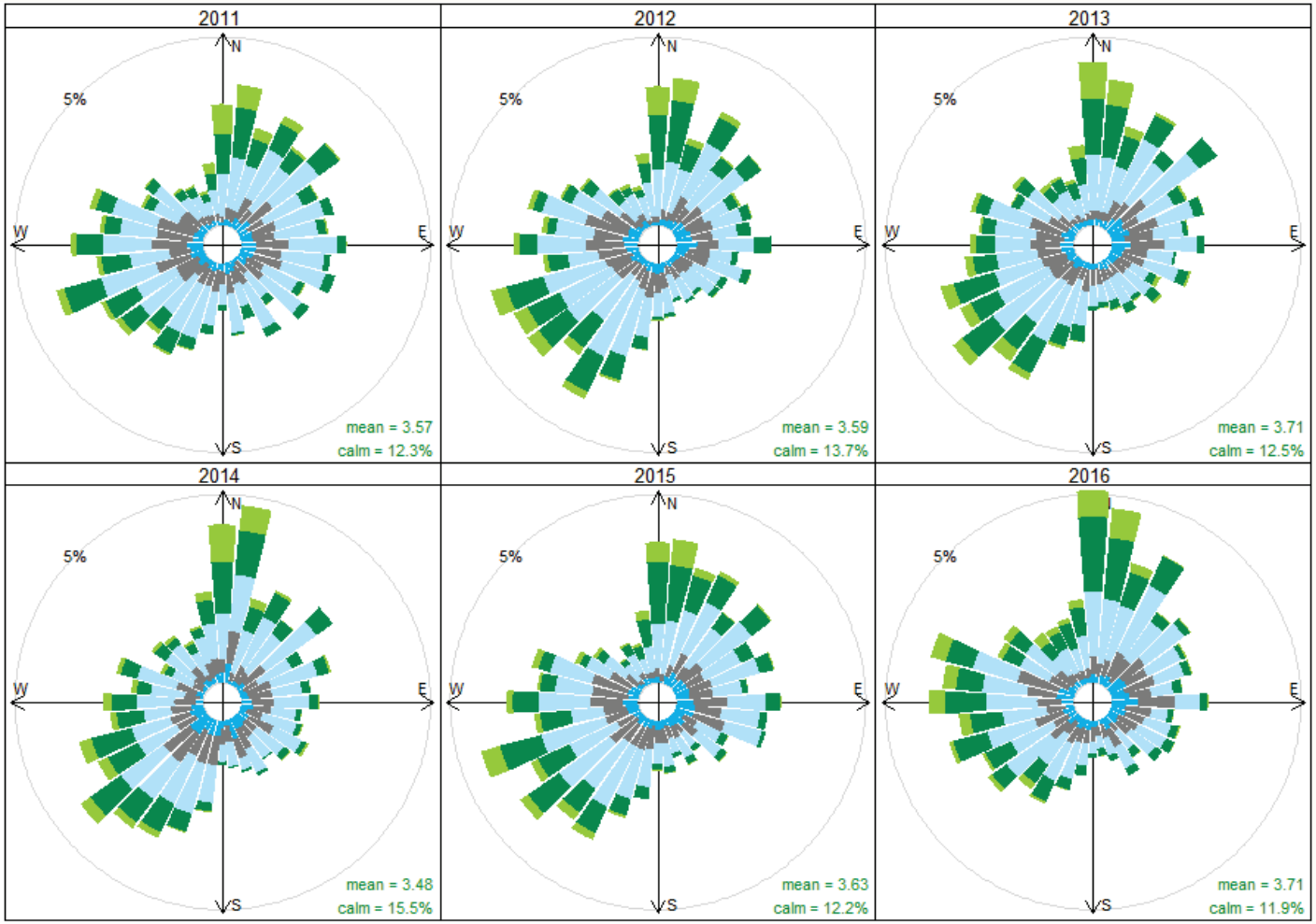
The wind roses generated for the Condobolin Airport AWS present wind direction and wind speed as a percentage of time for 2011 to 2016 (Figure 4). The wind roses show similar wind patterns to those recorded while the on-site meteorological station was operating.

Winds are dominant from the north/northeast and southwest and to a lesser extent, winds from most other directions.

4.3 Sensitive Receptors

Relevant receptors that may experience noise impacts associated with the initial construction activities of the Project are shown on Figure 3.

Given the progressive nature of the construction activities associated with the water pipeline, sensitive receivers in the vicinity of the water pipeline alignment would be unlikely to be exposed to significant noise impacts.



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LEGEND

Frequency of Counts by Wind Direction (%)

(ms^{-1})

- 0.5 to 1.5
- 1.5 to 3
- 3 to 5.5
- 5.5 to 8
- 8 to 16.9

Source: Ramboll Environ (2017)

CLEAN TEQ SUNRISE PROJECT

Wind Roses
2011 to 2016
(Condobolin Airport Automatic Weather Station)

Figure 4

5. NOISE CRITERIA

5.1 Development Consent DA 374-11-00

5.1.1 Operating Hours

In accordance with Condition 1, Schedule 3 of Development Consent DA 374-11-00, Clean TeQ must comply with the restrictions in Table 7, unless otherwise agreed by the Secretary.

In accordance with the footnote of Table 7, initial construction activities located at the mine and processing facility would be undertaken 24 hours per day, seven days per week.

Table 7 – Restriction on Hours of Construction

Activity	Operating Hours
• Construction of the: - gas pipeline; - water pipeline and borefields; - rail siding; - accommodation camp; and - road upgrades. • Construction materials haulage along the transport route.	• 7.00 am to 6.00 pm, Monday to Sunday

Note: all other operations are permitted 24 hours per day, seven days per week.
After: Development Consent DA 374-11-00.

5.1.2 Noise Criteria

Condition 2, Schedule 3 of Development Consent DA 374-11-00 requires that Clean TeQ must minimise the noise generated during construction of the development in accordance with the best practice requirements outlined in the ICNG (DECC, 2009), or its latest version (Section 5.2).

5.1.3 Operating Conditions

Condition 8, Schedule 3 of Development Consent DA 374-11-00 requires that Clean TeQ:

a) *minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply; and*
b) *undertake regular attended monitoring of the noise of the development, to ensure compliance with the relevant conditions of this consent.*

5.2 Interim Construction Noise Guideline

The ICNG does not include criteria that must be met by a development, however noise management levels are provided to inform the implementation of additional mitigation measures. The management levels are described in Table 8.

Table 8 – Interim Construction Noise Guideline Noise Management Levels

Time of Day	Noise Management Level $L_{Aeq(15minute)}$ (dBA)	How to Apply
Recommended standard hours: Monday to Friday 7.00 am to 6.00 pm Saturday 8.00 am to 1.00 pm No work on Sundays or public holidays	Noise affected RBL + 10 dB	The noise affected level represents the point above which there may be some community reaction to noise. • Where the predicted or measured $L_{Aeq(15minute)}$ is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. • The proponent should also inform all potentially impacted residents of the nature of the works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly noise affected 75 dBA	The highly noise affected level represents the point above which there may be strong community reaction to noise. • Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account: 1 times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences); and 2 if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
Outside recommended standard hours	Noise affected RBL + 5 dB	• A strong justification would typically be required for works outside the recommended standard hours. • The proponent should apply all feasible and reasonable work practices to meet the noise affected level. • Where all feasible and reasonable practices have been applied and noise is more than 5 dBA above the noise affected level, the proponent should negotiate with the community.

After: DECC (2009).

RBL = rating background level, dB = decibels.

5.3 NSW Road Noise Policy

The RNP includes discussion regarding the potential for sleep disturbance through noise impacts. While the RNP does not include criteria that must be met by a development, guidance is provided regarding what levels of noise may lead to sleep disturbance.

Based on the RNP, a $L_{A1(1min)}$ of 45 dBA has been adopted as a guideline level to minimise the potential for sleep disturbance during night-time operations.

5.4 Environment Protection Licence 21146

The $L_{Aeq(15minute)}$ construction noise limits for day, evening and night-time specified in Condition L4.1 of EPL 21146 are consistent with the noise management levels included in the ICNG (Section 5.2). The $L_{A1(1min)}$ construction noise limit for night-time specified in Condition L4.1 of EPL 21146 is consistent with the guideline level adopted based on the RNP (Section 5.3). To determine compliance with the noise limits in Condition L4.1, Condition M8 requires that noise monitoring be conducted in accordance with this NMP.

6. PERFORMANCE INDICATORS

The following noise related performance indicators will be used to judge the performance of the Project:

- effective implementation of noise management measures and controls;
- results of monitoring indicate no privately-owned residences are 'Noise affected' in accordance with the ICNG (i.e. $L_{Aeq(15minute)}$ noise levels at or below 40 dBA during the day and at or below 35 dBA during the evening and night);
- results of monitoring indicate no privately-owned residences experience maximum noise levels above the adopted sleep disturbance noise level at night (i.e. $L_{A1(1min)}$ noise levels at or below 45 dBA); and
- complaints are minimised and appropriate management actions are implemented following receipt of a complaint (Section 11.2).

Section 9 details the Contingency Plan to be implemented to manage any unpredicted impacts. Sections 10 and 11 detail the reporting that will be undertaken by Clean TeQ.

7. NOISE MANAGEMENT AND CONTROL MEASURES

Clean TeQ will implement best management practice to minimise noise generated by initial construction activities for the Project as required by Condition 2, Schedule 3 of Development Consent DA 374-11-00.

The noise management and control measures to be implemented during the construction phase of the Project are consistent with Strategies 1 to 7 described in the ICNG.

Noise management and control measures include:

- planning controls; and
- controls on construction activities.

The noise management and control measures to be implemented during the operational phase of the Project will be included in future versions of this NMP, prior to commencement of operations.

7.1 Planning Controls

The following planning controls will be implemented at the Project:

- Developing an awareness and understanding of potential noise issues through site inductions for staff, contractors and visitors.
- Negotiating with select nearby landowners regarding possible land acquisition or entering into a written negotiated agreement, where it is mutually agreeable to do so.

7.2 Controls on Construction Activities

The following noise management measures and controls will be implemented for construction activities at the Project where it is reasonable and feasible to do so (in accordance with Condition 2, Schedule 3 of Development Consent DA 374-11-00):

- Temporary cessation of work within an area, or from a particularly noisy piece of equipment, will be considered when adverse conditions are present.
- All plant and machinery used on-site will be maintained regularly to minimise noise generation.
- All plant and machinery used on-site will be operated in a proper and efficient manner (e.g. at correct speed) to minimise noise generation.
- Lesser noise generating construction activities (e.g. welding and electrical works) will be conducted during the evening/night-time period.
- Regular communication and updates will be provided to local residents on the status and nature of site construction activities.

- In the event of a complaint from a local resident, Clean TeQ will implement the complaints response process.

Additional controls or management measures may be identified during construction activities (e.g. as an outcome of attended noise monitoring and associated review mechanisms), and Strategies 1 to 7 described in the ICNG would be considered when selecting appropriate management measures or controls.

8. NOISE MONITORING PROGRAM

Clean TeQ will commence the noise monitoring program prior to the commencement of Project construction activities. The noise monitoring program is outlined in this section.

Attended noise monitoring will be conducted at various locations that are considered representative of sensitive receivers in the areas that may be potentially influenced by initial construction activities.

The Project noise and meteorological monitoring system is summarised in Table 9 and Figure 3.

Table 9 – Project Noise Monitoring System

Location				Frequency
Site ID	General Description	Easting	Northing	
AN1	Adjacent the "Currajong Park" homestead	541500	6378000	Quarterly [1]
AN2	Adjacent the "Wanda Bye" homestead	540600	6370400	
AN3	Adjacent the "Slapdown" homestead	543900	6373300	
AN4	Adjacent the "Flemington 1" homestead	533654	6376391	
AN5	Adjacent the "Lesbina" homestead, west of the limestone quarry [2]	554500	6365400	
AN6	Adjacent the "Moorelands" homestead, south-west of the limestone quarry [2]	553700	6363200	
AN7	Adjacent the "Reas Falls" homestead, south-east of the limestone quarry [2]	560000	6362600	
AN8	Adjacent the rail siding [2]	563700	6362800	
MET	AWS - adjacent the accommodation camp	538084	6371511	Continuous

[1] Attended monitoring may be conducted more frequently as required (e.g. as part of the complaint review process).

[2] These monitoring sites are representative of sensitive receivers in the vicinity of the limestone quarry and rail siding and are therefore not relevant to initial construction activities. These sites are not shown on Figure 3.

8.1 Noise Monitoring Methods

8.1.1 Attended Monitoring

Operator-attended noise monitoring will be conducted on a quarterly basis at four locations representative of the privately-owned receivers most likely to be affected by noise generated by the initial construction activities (Figure 3 and Table 9).

Monitoring would be conducted in accordance with AS 1055-1997 *Acoustics – Description and measurement of environmental noise General procedures,* the NPfI and the requirements (including applicable meteorological conditions) of Appendix 4 of Development Consent DA 374-11-00.

A summary of all monitoring results will be reported in the Annual Review (Section 10.1).

Measurement will be undertaken by a suitably experienced and capable person.

Acoustic instrumentation used in attended monitoring will comply with AS 1259.2-1990 *Acoustics - Sound Level Meters Integrating-Averaging* and carry current National Association of Testing Authorities or manufacturer calibration certificates. Instrument calibration will be conducted before and after each survey, with the variation in calibrated levels not to exceed ±0.5 dBA.
Wind direction, wind speed, air temperature and relative humidity will be recorded as part of the attended noise monitoring. Notes will be taken if there are changes in wind speed/direction at the various monitoring locations or if other relevant changes occur. While this information is gathered, the site data (wind speed/direction) will be included in compliance reports as this is taken at the required 10 metres above ground level.

Comprehensive field notes will be taken to indicate construction sources (dozer tracks, etc.) and other sources (birds, insects, dogs, passing cars, etc.) and when they occurred during the measurement to the nearest second.

9. CONTINGENCY PLAN

As described in Section 5, there are no specific criteria that apply to the initial construction activities of the Project.

Notwithstanding, in the event that a sensitive receiver is considered to be 'highly noise affected', as per Table 8, Clean TeQ will implement the following Contingency Plan:

- The Clean TeQ Environmental Superintendent will report the event as an incident, in accordance with Section 11.1.
- Clean TeQ will apply adaptive management (Section 9.1).
- Clean TeQ will identify the appropriate course of action with respect to the identified impact(s), in consultation with technical specialists, the DP&E and any other relevant agencies, as necessary. For example, contingency measures, such as, but not limited to, those described in Section 9.2.
- Clean TeQ will, in the event there is a dispute over the proposed remedial course of action or if the actions conflict with current approvals, submit the appropriate course of action to the DP&E for approval.
- Clean TeQ will implement the appropriate course of action to the satisfaction of the DP&E.

9.1 Adaptive Management

In accordance with Condition 3, Schedule 5 of Development Consent DA 374-11-00, Clean TeQ will assess and manage risks to comply with the criteria and/or performance measures outlined in Schedule 3 of Development Consent DA 374-11-00.

Where any exceedance of these criteria and/or performance measures occurs, at the earliest opportunity, Clean TeQ will:

- take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;
- consider all reasonable and feasible options for remediation and submit a report to the DP&E describing these options and preferred remediation measures; and
- implement remediation measures as directed by the Secretary of the DP&E.

9.2 Potential Contingency Measures

Potential contingency measures will be reviewed during revisions of this NMP. Key potential contingency measures to be implemented may include the following:

- Clean TeQ will notify (in writing) landowners and tenants considered to be 'highly noise affected' at the earliest opportunity and provide them with options for modifying construction activities (e.g. ceasing activities at certain times of the day).
- Clean TeQ will investigate and implement further noise management measures and controls, if monitoring results indicate this is required.

Clean TeQ will also implement any preferred contingency measures identified to address an incident (Section 11.1).

10. REVIEW AND IMPROVEMENT OF ENVIRONMENTAL PERFORMANCE

10.1 Annual Review

In accordance with Condition 5, Schedule 5 of Development Consent DA 374-11-00, Clean TeQ will review the environmental performance of the Project by the end of March each year (for the previous calendar year) to the satisfaction of the Secretary.

In relation to noise management, the Annual Review will (where relevant):

- describe the development that was carried out in the relevant calendar year, and the development that is proposed to be carried out during the following calendar year;
- include a comprehensive review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against the:
  - relevant statutory requirements, limits or performance measures/criteria;
  - monitoring results of previous years; and
  - relevant predictions in the EIS.
- identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- identify any trends in the monitoring data over the life of the development;
- identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- describe what measures will be implemented over the next year to improve the environmental performance of the development.

10.2 Independent Environmental Audit

In accordance with Condition 10, Schedule 5 of Development Consent DA 374-11-00, an independent environmental audit of the Project will be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary.

The independent environmental audit will assess the environmental performance of the Project and review the adequacy of this NMP. If necessary, appropriate measures or actions to improve the environmental performance of the Project or this NMP will be recommended.

An independent environmental audit will be conducted within one year of the commencement of the development under this consent, after 6 May 2017. The independent environmental audit, and Clean TeQ's response to the recommendations in the audit, will be made publicly available on the Clean TeQ website, in accordance with Condition 12, Schedule 5 of Development Consent DA 374-11-00.

11. REPORTING PROTOCOL

In accordance with Condition 4(g), Schedule 5 of Development Consent DA 374-11-00, Clean TeQ has developed protocols for managing and reporting the following:

- incidents;
- complaints;
- non-compliances with statutory requirements; and
- exceedances of the impact assessment criteria and/or performance criteria.

These protocols are described in detail in Clean TeQ's Environmental Management Strategy.

In accordance with Condition 9, Schedule 5 of Development Consent DA 374-11-00, Clean TeQ will provide regular reporting on the environmental performance of the Project on the Clean TeQ website.

11.1 Incident Reporting

An incident is defined as a set of circumstances that causes or threatens to cause material harm to the environment and/or breaches or exceeds the limits or performance measures/criteria in Development Consent DA 374-11-00.

In the event that review of noise monitoring data indicates an incident has occurred, the incident will be reported in accordance with Condition 8, Schedule 5 of Development Consent DA 374-11-00. Clean TeQ will notify the Secretary and any other relevant agencies including the relevant Council immediately after it becomes aware of the incident.

Within seven days of the date of the incident, Clean TeQ will provide the Secretary and any other relevant agencies with a detailed report on the incident and such further reports as may be requested. The report will:

- describe the date, time and nature of the exceedance/incident;
- identify the cause (or likely cause) of the exceedance/incident;
- describe what action has been taken to date; and
- describe reasonable and feasible options to address the incident and identify the preferred option to address the incident (Section 9.1).

11.2 Complaints

Clean TeQ will maintain a Community Complaints Line (tel: 1800 952 277) and email address (community@cleanteq.com) for the sole purpose of receiving community contacts and complaints. The Community Complaints Line number will be available on the website and included in Clean TeQ's advertising and community communication tools. The Community Complaints Line will be staffed 24 hours a day, seven days a week during construction and operations. Clean TeQ will respond to callers on the next business day. If the issue is urgent a member of the leadership team will be contacted immediately.

Clean TeQ has developed a procedure that outlines its commitment to receiving, resolving and recording complaints received from the community. Detailed records of each complaint resolution are kept in Clean TeQ's record management systems.

Complaints will be investigated within 24 hours of receipt. The cause of the complaint will be analysed and actions to resolve the complaint taken as soon as possible. In complex cases where resolution will take more than 48 hours, Clean TeQ will commit to update the community member regularly until the complaint is resolved.

In accordance with Condition 12(a), Schedule 5 of Development Consent DA 374-11-00, a complaints register will be made available on the Clean TeQ website and updated monthly.

11.3 Non-Compliances with Statutory Requirements

A protocol for managing and reporting non-compliances with statutory requirements has been developed as a component of Clean TeQ's Environmental Management Strategy and is described below.

Compliance with all approvals plans and procedures is the responsibility of all personnel (staff and contractors) employed on or in association with Clean TeQ and the Project.

The Clean TeQ Environmental Superintendent will undertake regular inspections, internal audits and initiate directions identifying any remediation/rectification work required, and areas of actual or potential non-compliance.

As described in Section 11.1, Clean TeQ will report incidents in accordance with Condition 8, Schedule 5 of Development Consent DA 374-11-00 and in accordance with the protocol for industry notification of pollution incidents under Part 5.7 of the POEO Act. Clean TeQ will notify the Secretary and any other relevant agencies including the relevant Council, in accordance with the Pollution Incidence Response Management Plan, immediately after the authorised person becomes aware of the incident which causes or threatens to cause material harm to the environment.

Within seven days of the date of the incident, Clean TeQ will provide the Secretary and any other relevant agencies with a detailed report on the incident and such further reports as may be requested.

A review of compliance with all conditions in Development Consent DA 374-11-00, Mining Lease 1770 and all other approvals and licences will be undertaken prior to (and included within) each Annual Review (Section 10.1).

Additionally, in accordance with Condition 10, Schedule 5 of Development Consent DA 374-11-00, an independent environmental audit (Section 10.2) will be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary to assess whether Clean TeQ is complying with the requirements in Development Consent DA 374-11-00, and any other relevant approvals, EPLs, and/or mining leases.

12. REFERENCES

Black Range Minerals (2000) *Syerston Nickel Cobalt Project Environmental Impact Statement*.

Clean TeQ (2019) *Clean TeQ Sunrise Project Noise Management Plan.* Revision 2. 27 March 2019.

Department of Environment and Climate Change (2009) *New South Wales Interim Construction Noise Guideline.*

Department of Planning and Environment (2018) *Voluntary Land Acquisition and Mitigation Policy.*

Environment Protection Authority (2017) *Noise Policy for Industry.*

Renzo Tonin and Associates (2017) *Syerston Project Modification 4 Noise and Blasting Assessment*.

APPENDICES

Appendix A: Noise Related Development Consent DA 374-11-00 Conditions

Table A1 – Noise Related Development Consent DA 374-11-00 Conditions

<table>
<tr><th>Development Consent DA 374-11-00</th><th>NMP Section</th></tr>
<tr><td>Schedule 3</td><td></td></tr>
<tr><td>
NOISE
Hours of Construction/Operation
1. The Applicant must comply with the restrictions in Table 1, unless otherwise agreed by the Secretary.

Table 1: Restriction on Hours of Construction/Operation
<table>
<tr><th>Activity</th><th>Operating Hours</th></tr>
<tr><td>• Construction of the:
- gas pipeline;
- water pipeline and borefields;
- rail siding;
- accommodation camp; and
- road upgrades
• Construction materials haulage along the transport route</td><td>• 7 am to 6 pm, Monday to Sunday</td></tr>
<tr><td>• All quarrying operations (excluding truck loading on the limestone quarry site)</td><td>• 7 am to 5 pm, Monday to Sunday</td></tr>
</table>
Note: All other operations are permitted 24 hours per day, seven days per week.
</td><td>Section 5.1</td></tr>
<tr><td>
Construction Noise
2. The Applicant must minimise the noise generated during construction of the development in accordance with the best practice requirements outlined in the Interim Construction Noise Guideline (DECC, 2009), or its latest version.
</td><td>Sections 5 and 7</td></tr>
<tr><td>
Operational Noise Criteria - Mine
3. The Applicant must ensure that the noise generated by development at the mine does not exceed the criteria in Table 2.

Table 2: Noise Criteria (dB(A)) – Mine
<table>
<tr><th rowspan="2">Location and Receiver ID</th><th>Day</th><th>Evening</th><th colspan="2">Night</th></tr>
<tr><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{A1\ (1\ minute)}$</th></tr>
<tr><td>Currajong Park (M08 and M23)</td><td>37</td><td>37</td><td>37</td><td>45</td></tr>
<tr><td>Abandoned (M04)</td><td rowspan="4">35</td><td rowspan="4">36</td><td rowspan="4">36</td><td rowspan="4">45</td></tr>
<tr><td>Glenburn (M10)</td></tr>
<tr><td>Rosehill (M28)</td></tr>
<tr><td>Slapdown (M29)</td></tr>
<tr><td>Brooklyn (M22)</td><td>36</td><td>35</td><td>35</td><td>45</td></tr>
<tr><td>Wanda Bye</td><td>35</td><td>37</td><td>37</td><td>45</td></tr>
<tr><td>All other privately-owned residences</td><td>35</td><td>35</td><td>35</td><td>45</td></tr>
</table>
Note: To identify the residence referred to in Table 2, see Appendix 4.
</td><td>To be included in future versions of the NMP prior to commencing operations.</td></tr>
<tr><td>
3A. If the noise generated by the development at the mine causes sustained exceedances of the criteria in Table 2A at any residence on privately-owned land, then upon receiving a written request for acquisition from the landowner, the Applicant must acquire the land in accordance with the procedures in conditions 3-4 of Schedule 4.

Table 2A: Noise Acquisition Criteria (dB(A)) – Mine
<table>
<tr><th rowspan="2">Location</th><th>Day</th><th>Evening</th><th>Night</th></tr>
<tr><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{aeq\ (15\ minute)}$</th></tr>
<tr><td>All privately-owned residences.</td><td>40</td><td>40</td><td>40</td></tr>
</table>
Note: To identify the residences referred to in Table 2A, see Appendix 4.
</td><td>To be included in future versions of the NMP prior to commencing operations.</td></tr>
</table>

Table A1 – Noise Related Development Consent DA 374-11-00 Conditions (Continued)

<table>
<tr><th>Development Consent DA 374-11-00</th><th>NMP Section</th></tr>
<tr><td>

Operational Noise Criteria – Limestone Quarry

4. The Applicant must ensure that the noise generated by development at the limestone quarry does not exceed the criteria in Table 3.

Table 3: Noise Criteria (dB(A)) – Limestone Quarry

<table>
<tr><th rowspan="2">Location</th><th>Day</th><th>Evening</th><th colspan="2">Night</th></tr>
<tr><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{A1\ (1\ minute)}$</th></tr>
<tr><td>Moorelands</td><td>42</td><td>35</td><td>35</td><td>45</td></tr>
<tr><td>Lesbina</td><td rowspan="2">38</td><td rowspan="2">35</td><td rowspan="2">35</td><td rowspan="2">45</td></tr>
<tr><td>Eastbourne</td></tr>
<tr><td>Gillenbine</td><td>37</td><td>35</td><td>35</td><td>45</td></tr>
<tr><td>All other privately-owned residences</td><td>35</td><td>35</td><td>35</td><td>45</td></tr>
</table>

Note: To identify the residences referred to in Table 3, see Appendix 4.

</td><td>To be included in future versions of the NMP prior to construction of the limestone quarry.</td></tr>
<tr><td>

Operational Noise Criteria – Rail Siding

5. The Applicant must ensure that the noise emissions from the development at the rail siding do not exceed the noise limits in Table 4 at all non-development related residences. Syerston Mine Project 8

Table 4: Noise Criteria (dB(A)) – Rail Siding

<table>
<tr><th rowspan="2">Location</th><th>Day</th><th>Evening</th><th colspan="2">Night</th></tr>
<tr><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{aeq\ (15\ minute)}$</th><th>$L_{A1\ (1\ minute)}$</th></tr>
<tr><td>Glen Rock</td><td rowspan="3">37</td><td rowspan="3">35</td><td rowspan="3">35</td><td rowspan="3">45</td></tr>
<tr><td>Ballanrae</td></tr>
<tr><td>Spring Park</td></tr>
<tr><td>All other privately-owned residences</td><td>35</td><td>35</td><td>35</td><td>45</td></tr>
</table>

Note: To identify the residences referred to in Table 4, see Appendix 4.

</td><td>To be included in future versions of the NMP prior to construction of the rail siding.</td></tr>
<tr><td>

Noise Management Requirements

6. Noise generated by the development is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy (EPA, 1999), or its latest version. Appendix 4 sets out the meteorological conditions under which the criteria in conditions 3 – 5 above apply, and the requirements for evaluating compliance with these criteria.

</td><td>Section 5</td></tr>
<tr><td>

Noise Agreements

7. However, the noise criteria in conditions 3 – 5 above do not apply if the Applicant has an agreement with the owner/s or leaseholders of the residence to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

</td><td>Section 5</td></tr>
<tr><td>

Operating Conditions

8. The Applicant must:

a) minimise the noise impacts of the development during meteorological conditions under which the noise limits in this consent do not apply; and

b) undertake regular attended monitoring of the noise of the development, to ensure compliance with the relevant conditions of this consent.

</td><td>Section 8</td></tr>
<tr><td>

Noise Management Plan

9. Prior to carrying out any development under this consent after 6 May 2017, the Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:

</td><td></td></tr>
<tr><td>*a) be prepared in consultation with the EPA;*</td><td>This NMP</td></tr>
<tr><td>*b) include management of construction, traffic and operational noise;*</td><td>Section 7</td></tr>
<tr><td>*c) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions of this consent, including measures to reduce noise emissions from the mine during night time operations under adverse meteorological conditions;*</td><td>Section 7</td></tr>
<tr><td>*d) include a noise monitoring program for evaluating and reporting on:*
• *compliance against the noise criteria in this consent;*
• *compliance against the noise operating conditions; and*</td><td>Sections 8 and 11.3</td></tr>
<tr><td>*e) defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.*</td><td>Sections 6 and 11.1</td></tr>
<tr><td>*10. The Applicant must implement the approved Noise Management Plan for the development.*</td><td></td></tr>
</table>