

Sunrise Project Noise Management Plan





SUNRISE PROJECT

NOISE MANAGEMENT PLAN

REVISION 4



8 AUGUST 2022 Project No. CTL-17-03 2020-CTEQ-0000-66AA-0007

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1. INTRODUCTION

The Sunrise Project (the Project) is a nickel cobalt scandium open cut mining project 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;
- borefield, 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).

SRL Ops Pty Ltd owns the rights to develop the Project. SRL Ops Pty Ltd is a wholly owned subsidiary of Sunrise Energy Metals Limited (SEM) ¹.

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. Seven 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 borefield;
- 2017 to allow for the production of scandium oxide;
- 2017 to amend hazard study requirements;
- 2018 to relocate the accommodation camp;
- 2018 to implement opportunities to improve the overall efficiency of the Project; and
- 2022 to implement changes to optimise the construction and operation of the Project.



¹ SEM was previously Clean TeQ Holdings Limited (Clean TeQ).



1.1 PURPOSE AND SCOPE

This Noise Management Plan (NMP) has been prepared by SEM 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
Noi	ise N	lanagement Plan	This NMP
9.	201	or to carrying out any development under this consent after 6 May 17, the Applicant must prepare a Noise Management Plan for the relopment to the satisfaction of the Planning Secretary. This plan must:	
	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 that uses:	Section 8.1
		 attended noise monitoring for evaluating and reporting on compliance against the noise criteria in this consent; 	
		 a combination of real-time and attended monitoring to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure the compliance with the relevant conditions of this consent; and 	
	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 11.1
10.		e Applicant must implement the approved Noise Management Plan for development.	Section 3.1.1

Note: EPA refers to the NSW Environment Protection Authority.

On 5 July 2018, the Planning Secretary of the Department of Planning and Environment (DPE) (the Planning 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 borefield, surface water extraction infrastructure and water pipeline;
 and
- · road upgrades.

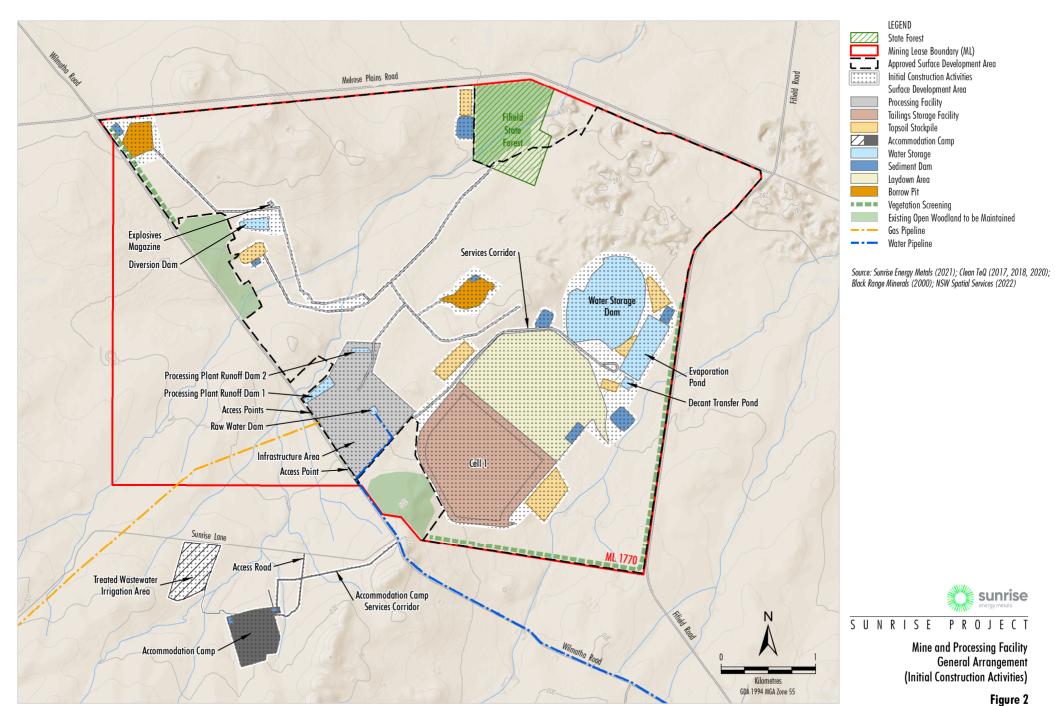
The general arrangement of the mine and processing facility during the initial construction activities is shown on Figure 2.

1.2 STRUCTURE OF THIS NOISE MANAGEMENT PLAN

The remainder of this NMP is structured as follows:

- Section 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 SEM 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.





2. NOISE MANAGEMENT PLAN REVIEW AND UPDATE

The previous version of this NMP was approved by DPE on 15 June 2020. The NMP has been updated to include minor revisions and to reflect the determination of Modification 7. The NMP was provided to the NSW EPA in May 2022 for the purposes of consultation in accordance with Condition 9(a), Schedule 3 of Development Consent DA 374-11-00. The EPA provided comments on the 22 June 2022 and these comments have been incorporated in this NMP.

Consistent with the Planning Secretary's approval for the progressive submission of environmental management plans on 5 July 2018, this NMP, the scope of which covers the initial Project construction activities, will be re-submitted for approval 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 Planning 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 Planning Secretary will be advised of the outcomes of the review and any revised documents submitted to the Planning Secretary for approval.

If agreed with the Planning 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 SEM website, in accordance with Condition 12, Schedule 5 of Development Consent DA 374-11-00.



3. STATUTORY REQUIREMENTS

SEM'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

Conditions 9 and 10, Schedule 3 of Development Consent DA 374-11-00 requires the preparation and implementation of a NMP (refer Table 1). In accordance with Condition 10, Schedule 3 of Development Consent DA 374-11-00, SEM will implement the NMP.

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. Other general Development Consent DA 374-11-00 requirements relevant to the preparation of this NMP are provided in Appendix B.

Table 2
Management Plan (General) Requirements

	Project Development Consent DA 374-11-00 Schedule 5	NMP Section				
Ма	nagement Plan Requirements					
4.	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 lease conditions); 	e or 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; 	e 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				



Table 2
Management Plan (General) Requirements (Continued)

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

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 Resources Regulator.
- Environment Protection Licence (EPL) 21146 issued under the NSW Protection of the Environment Operations Act 1997 (POEO Act).
- Water supply works, water use approvals and water access licences (WALs) issued under the NSW Water Management Act 2000 including:
 - Water Supply Works Approval 70CA614098 for the Project borefield.
 - Water Supply Works Approval 70WA617095 for the surface water extraction infrastructure and water pipeline.
 - 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
 Alluvial Groundwater Sources 2020.
 - 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 Alluvial
 Groundwater Sources 2020.
 - 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 2020.
 - WAL 6679 for 123 share components (General Security) under the Water Sharing Plan for the Lachlan Regulated River Water Source 2016.
 - WAL 1798 in the Lachlan Regulated River Water Source, for 300 share components (General Security) under the Water Sharing Plan for the Lachlan Regulated River Water Source 2016.



- WAL 42370 in the Lachlan Regulated River Water Source, for zero share components (High 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 under the NSW National Parks and Wildlife Act 1974.
- Mining and workplace health and safety related approvals.
- Permits under the Roads Act 1993.
- Heavy Vehicle Authorisation Permit 119039v3 issued under the Heavy Vehicle National Law Act 2012.
- Crown Land Licences issued under the Crown Land Management Act 2016.

3.3 OTHER LEGISLATION

SEM 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 (NPfl) (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 (DPE, 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)

	L _{A90(15minute)} Rating Background Noise Level (dBA)						
Monitoring	Mine and Processi	Quarry					
Location	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

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.



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.

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)

	L _{A90(15minute)} Rating Background Noise Level (dBA)					
Monitoring Location	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).

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.

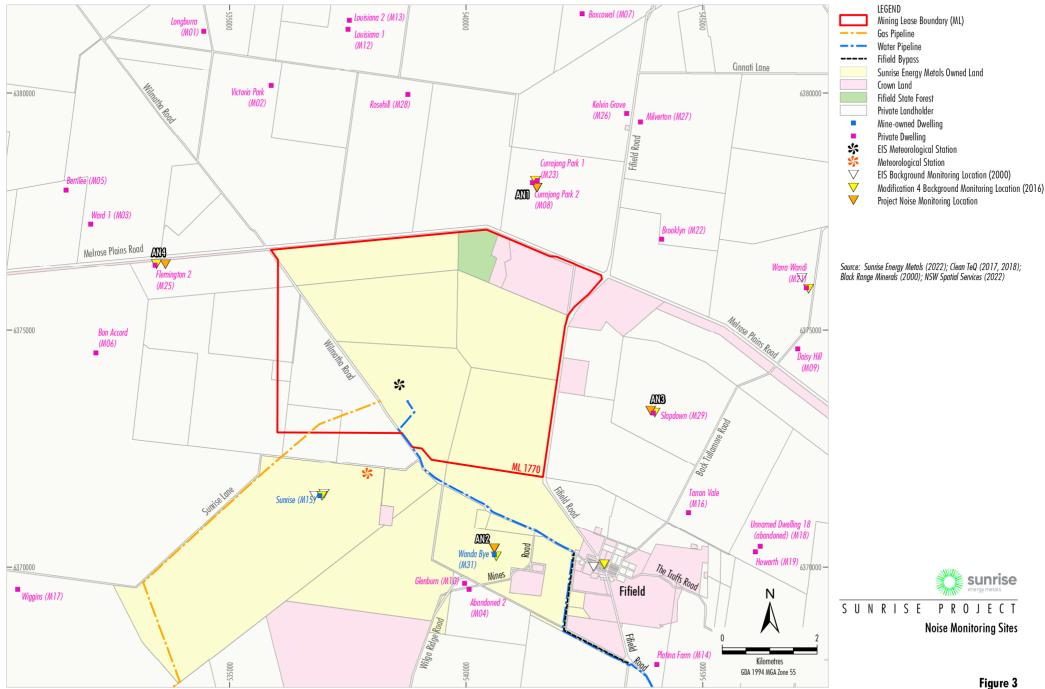
At each monitoring location, 15 minute operator-attended noise surveys were conducted during the day, evening and night during the collection of the noise loggers on 14/15 December 2016, where weather permitted.

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.



¹ Affected by insect noise throughout the monitoring period.



CTL-17-03 MP2022 Noise 201A

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

Monitoring Location	Period	Start Time	Desc (dBA re	y Noise criptor 20 μPa)	Description of Noise Emission Sources
			L _{A90}	L _{Aeq}	
	Day	12.00 pm 7 December ¹	26	36	
	Day	12.15 pm 7 December ¹	28	41	
L1 – 9 Wilmatha	Evening	9.00 pm 7 December ¹	35	48	Background noise dominated by traffic on Wilmatha Fifield
Fifield Rd	Evening	9.15 pm 7 December ¹	34	42	Road and environmental noise within the Township.
	Nº 14	2.30 am 8 December ¹	22	31	
	Night	2.45 am 8 December ¹	22	39	
		12.00 pm 7 December ¹	29	32	
	Day	12.15 pm 7 December ¹	30	38	
10 "01"	Evening	9.00 pm 7 December ¹	31	42	Background noise dominated by environmental noise,
L2 – "Slapdown"		9.15 pm 7 December ¹	30	34	distant harvesting activities and distant traffic.
		2.30 am 8 December ¹	20	37	
	Night	2.45 am 8 December ¹	19	34	
	Day	12.00 pm 7 December ¹	40	42	
	Day	12.15 pm 7 December ¹	39	42	
L3 – "Wanda	Evening	9.00 pm 7 December ¹	30	38	Background noise dominated by environmental noise and
Bye"	Evening -	9.15 pm 7 December ¹	30	35	distant traffic. On site sheep farming activities occur during the day time.
	No. 1	2.30 am 8 December ¹	25	28	and day unio.
	Night	2.45 am 8 December ¹	25	27	



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

Monitoring Location	Period	Start Time	Desc	y Noise riptor 20 μPa)	Description of Noise Emission Sources
	D	12.00 pm 7 December ¹	33	47	
	Day -	12.15 pm 7 December ¹	32	50	
L4 – "Warra	Evening -	9.00 pm 7 December ¹	37	38	Background noise dominated by environmental noise and
Wandi"	Lvormig	9.15 pm 7 December ¹	37	38	traffic on Fifield Kadungle Rd.
	Night -	2.30 am 8 December ¹	27	30	
	9	2.45 am 8 December ¹	26	28	
	Day -	12.00 pm 7 December ¹	29	52	
	Day	12.15 pm 7 December ¹	29	48	
L5 – "Currajong	Evening -	9.00 pm 7 December ¹	24	45	Background noise dominated by environmental noise and distant traffic. On site sheep
Park"	Lvermig	9.15 pm 7 December ¹	24	50	farming activities occur during the day time.
	Night -	2.30 am 8 December ¹	20	45	
	rtigrit	2.45 am 8 December ¹	20	44	
	Day -	12.00 pm 7 December ¹	29	35	
	Day	12.15 pm 7 December ¹	28	42	
L6 – "Sunrise"	Evening -	9.00 pm 7 December ¹	26	31	Background noise dominated by environmental noise and
20 Carmed	Lvorming	9.15 pm 7 December ¹	26	31	distant traffic.
	Night -	2.30 am 8 December ¹	21	24	
	Tugin	2.45 am 8 December ¹	21	28	
	Day -	12.00 pm 7 December ¹	36	39	
	Day	12.15 pm 7 December ¹	7 December 1 30 42	 Background noise dominated 	
L7 – "Flemington"	Evening -	9.00 pm 7 December ¹	38	40	by environmental noise and traffic on Melrose
1	Lverillig	9.15 pm 7 December ¹	37	39	Gillenbine Rd. Presence of insect noise throughout
	Night	2.30 am 8 December ¹	34	35	measurement periods.
Source: Renzo Tonin and A	Night	2.45 am 8 December ¹	34	35	

Source: Renzo Tonin and Associates (2017).



Analysis completed on recorded audio.

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

Monitoring Location	Period	Start Time	Desc	y Noise riptor 20 µPa)	Description of Noise Emission Sources
			L _{A90}	L _{Aeq}	
	Dov	5.30 pm 14 December	39	46	
	Day -	5.45 pm 14 December	39	49	Background noise dominated by traffic on Wilmatha Road
L1 – 9 Wilmatha Fifield Rd	Evening -	6.00 pm 14 December	34	46	and Fifield Road and environmental noise within the Township. Light rain
	Everiling	6.15 pm 14 December	35	43	during evening measurement period.
	Night	1.00 am 15 December	24	42	
	Day	11.00 am 15 December ¹	29	37	
L2 – "Slapdown"	Day -	11.15 am 15 December ¹	29	39	Background noise dominated by environmental noise,
L2 – Siapuowii	Evening	9.45 pm 14 December	34	35	distant harvesting activities and distant traffic.
	Night	10.00 pm 14 December	34	35	
	Day Wanda Evening	11.00 am 15 December ¹	37	42	
		11.15 am 15 December ¹	38	42	Background noise dominated by environmental noise and
L3 – "Wanda Bye"		6.45 pm 14 December	32	42	distant traffic. On site sheep farming activities occur during the day time. Light rain
		7.00 pm 14 December	32	45	during the day time. Light rail during evening measurement period.
	Night	12.30 am 15 December	29	34	
	Day -	11.00 am 15 December ¹	26	43	
L4 – "Warra	Day	11.15 am 15 December ¹	29	46	Background noise dominated by environmental noise and traffic on Fifield Kadungle Rd.
Wandi"	Evening	9.15 pm 14 December	42	44	Light rain during evening measurement period.
	Night	10.30 pm 14 December	43	49	
	_	11.00 am 15 December ¹	29	38	Background noise dominated
L5 – "Currajong	Day -	11.15 am 15 December ¹	29	38	by environmental noise and distant traffic. On site sheep
Park"		8.45 pm 14 December	24	59	farming activities occur during the day time. Light rain during evening measurement
	Night	11.00 pm 14 December	22	45	period.



Table 7
Modification 4 Short-term Noise Survey Results (14/15 December 2016) (Continued)

Monitoring Location	Period	Start Time	Primary Noise Descriptor (dBA re 20 μPa)		Description of Noise Emission Sources	
			L _{A90}	L _{Aeq}		
L6 – "Sunrise"	Day	11.00 am 15 December ¹	28	44		
		11.15 am 15 December ¹	34	51	Background noise dominated	
	Evening	7.30 pm 14 December	36	46	by environmental noise and distant traffic. Light rain during evening measurement	
		7.45 pm 14 December	33	39	period.	
	Night	12.00 am 15 December	35	37		
L7 – "Flemingto n" 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	
		11.15 am 15 December ¹	40	42		
	Evening	8.15 pm 14 December	37	42		
	Night	11.30 pm 14 December	40	44	rain during evening measurement period.	

Source: Renzo Tonin and Associates (2017).

4.2 METEOROLOGICAL 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 Project automatic meteorological station (AWS) was installed in November 2018 (Figure 3). The wind roses generated for the Project AWS present wind direction and wind speed as a percentage of time for 2019 to 2021 (Figure 4).

Winds are predominantly from the southwest/west and northeast/east with some variations by season and from year-to-year.

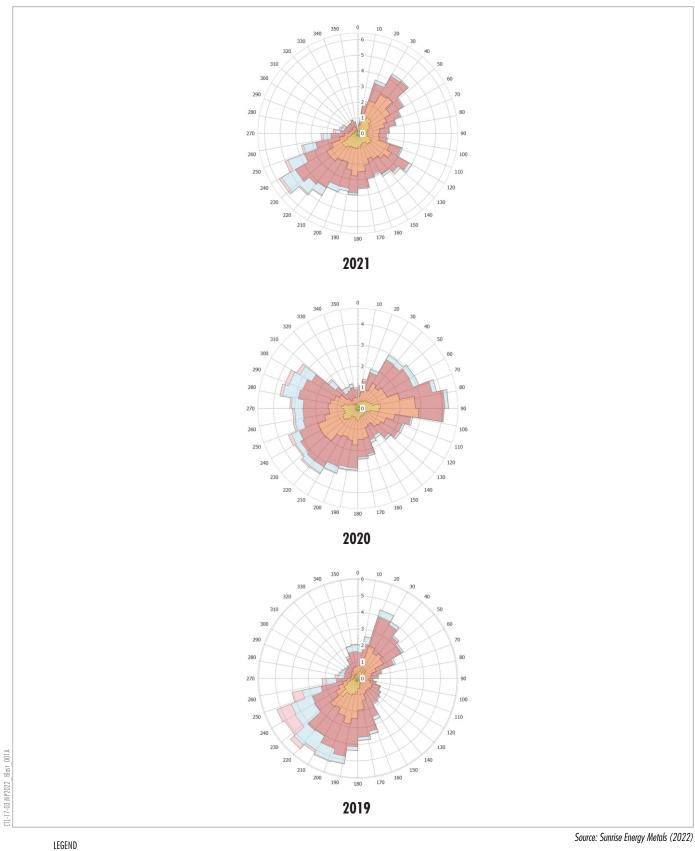
4.3 SENSITIVE RECEPTORS

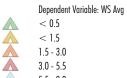
Relevant receptors that may experience noise impacts associated with the initial construction activities of the Project are shown on Figure 3.

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.



Analysis completed on recorded audio.





< 1.5 1.5 - 3.0

Wind Direction Variable: WD Avg

3.0 - 5.5 5.5 - 8.0

8.0 - 20.60 > = 20.60

sunrise S U N R I S E P R O J E C T

> Annual Wind Roses 2019 - 2021 (Project Automatic Weather Station)

5. NOISE CRITERIA

5.1 DEVELOPMENT CONSENT DA 374-11-00

5.1.1 Hours of Construction/Operation

In accordance with Condition 1, Schedule 3 of Development Consent DA 374-11-00, SEM must comply with the restrictions in Table 7, unless otherwise agreed by the Planning 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/Operations

Activity	Operating Hours		
 Construction of the: gas pipeline; water pipeline and borefield; rail siding; accommodation camp; and road upgrades. Construction materials haulage along the transport route. 	• 7.00 am to 6.00 pm, Monday to Sunday		
All quarrying operations (excluding truck loading on the limestone quarry site).	7.00 am to 5.00 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 SEM 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 SEM:

- take all reasonable steps to minimise noise from the construction and operational activities, including low frequency noise and other audible characteristics, as well as road traffic noise associated with the development;
- (b) operate a comprehensive noise management system using a combination of predictive meteorological forecasting and real-time noise monitoring data 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;
- take all reasonable steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions;
- (d) maintain the sound power levels of mobile equipment and plant used for the development to ensure compliance with the noise criteria in this consent;



- (e) ensure that improvements are made to existing noise suppression equipment as improved technology becomes available, where reasonable and feasible;
- (f) carry out regular attended noise monitoring (at least quarterly, unless otherwise agreed by the Planning Secretary) to determine whether the development is complying with the relevant conditions of this consent; and
- (g) regularly assess the noise monitoring data and modify or stop operations on the site 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			
		The noise affected level represents the point above which there may be some community reaction to noise.			
Recommended standard hours:	Noise affected RBL + 10 dB	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.			
Monday to Friday		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.			
7.00 am to 6.00 pm		The highly noise affected level represents the point above which there may be strong community reaction to noise.			
Saturday 8.00 am to 1.00 pm	Highly noise affected	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:			
No work on Sundays or public holidays	75 dBA	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			
pablio Holladyo		2 if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.			
Outside recommended standard hours		A strong justification would typically be required for works outside the recommended standard hours.			
	Noise affected RBL + 5 dB	The proponent should apply all feasible and reasonable work practices to meet the noise affected level.			
	NDL 1 0 db	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 key 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 SEM.



7. NOISE MANAGEMENT AND CONTROL MEASURES

SEM 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):

- SEM will implement reasonable measures (e.g. operational changes and temporary cessation of relevant works) to minimise the potential noise impacts of the Project when noise-enhancing meteorological 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, SEM will implement the complaints response process (Section 11.2).

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.



7.3 CONTROLS ON ROAD TRAFFIC NOISE

SEM will implement the following traffic mitigation and management measures to reduce potential road traffic noise:

- regulating Project-related driver behaviour through implementation of the Road Transport Protocol in the Traffic Management Plan (SEM, 2021) (e.g. Project-related drivers will remain within posted speed limits and exhaust and compression braking will be avoided);
- operating shuttle buses to transport employees to and from the mine site during construction and operational phases of the Project;
- Project-related heavy vehicle movements will be staggered and movements during night-time will be minimised where practicable; and
- Project-related vehicles will be well maintained.



8. NOISE MONITORING PROGRAM

SEM 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 and Meteorological Monitoring System

Location								
Site ID	General Description		Northing	Frequency				
Noise Monitoring								
AN1	Adjacent the "Currajong Park" homestead	541500	6378000					
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	Quarterly ¹				
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					
Meteorological Monitoring								
MET	AWS - adjacent the accommodation camp	538084	6371511	Continuous				

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

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 (including low frequency noise and other audible characteristics) and the relevant requirements of Development Consent DA 374-11-00 (including applicable meteorological conditions).

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



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.

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.

8.1.2 Real-time Monitoring

In accordance with Conditions 8(b) and 9(d), Schedule 3 of Development Consent DA 374-11-00, prior to the commencement of mining operations, SEM will update this NMP to include a real-time noise monitoring program to guide the day to day planning of mining operations and the implementation of pro-active and reactive noise mitigation measures.

8.1.3 Sound Power Level Monitoring

Ongoing sound power level testing of a sample of the key mobile equipment and plant will be undertaken annually (approximately 1/3 of the entire fleet) to compare the actual sound power levels against the sound power level assumptions adopted in the Modification 7 Noise Assessment (Renzo Tonin and Associates, 2021).

Where a key mobile equipment or plant exceeds the sound power level assumption adopted in the Modification 7 Noise Assessment (Renzo Tonin and Associates, 2021) by 3 dB or greater and exceedances of the relevant noise criteria (Section 5) are occurring, SEM will implement mitigation measures to reduce the sound power level of the relevant item of mobile equipment or plant.

In accordance with Condition 8(e), Schedule 3 of Development Consent DA 374-11-00, SEM will consider improved noise suppression technology as they become available, in order to reduce the sound power levels of mobile equipment and plant, where reasonable and feasible.



9. CONTINGENCY PLAN

The construction noise criteria for the Project are described in Section 5.2. In the event that a sensitive receiver is considered to be 'highly noise affected' (Table 8), SEM will implement the following Contingency Plan:

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

9.1 ADAPTIVE MANAGEMENT

In accordance with Condition 3, Schedule 5 of Development Consent DA 374-11-00, SEM 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, SEM 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 DPE describing these options and preferred remediation measures; and
- implement remediation measures as directed by the Planning Secretary.

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:

- SEM 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).
- SEM will investigate and implement further noise management measures and controls, if monitoring results indicate this is required.

SEM 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, SEM 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 Planning Secretary.

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

- describe the development (including any rehabilitation) 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.

Based on consideration of the above points, the Annual Review will determine the effectiveness of relevant management measures implemented at the Project.

The Annual Review will be made publicly available on the SEM website.

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 Planning Secretary. The audit will be prepared in accordance with the relevant *Independent Audit Post Approval Requirements* (DPE, 2020) (or its latest version) and include consultation with the relevant agencies (DPE, NSW EPA).

The independent environmental audit will assess the environmental performance of the Project and assess whether the Project is complying with the requirements of Development Consent DA 374-11-00. In addition, the independent environmental audit will assess the adequacy of this NMP and, 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, and every three years thereafter, unless the Planning Secretary directs otherwise.



In accordance with Condition 11, Schedule 5 of Development Consent DA 374-11-00, within 3 months of commissioning the independent environmental audit, or as otherwise agreed by the Planning Secretary, SEM will submit a copy of the independent environmental audit report to the Planning Secretary, together with its response to any recommendations contained in the independent environmental audit report.

The independent environmental audit, and SEM's response to the recommendations in the audit, will be made publicly available on the SEM 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, SEM 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 SEM's Environmental Management Strategy.

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

11.1 INCIDENT REPORTING

An incident (as defined in Development Consent DA 374-11-00) is a set of circumstances that causes or threatens to cause material harm to the environment and/or breaches or exceeds the limits or performance measures/criteria in 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. The Planning Secretary will be notified in writing via the Major Projects Portal immediately after SEM becomes aware of an incident. The notification will identify the Project name and development application number, and set out the location and nature of the incident.

Subsequent notification will be given and reports submitted in accordance with the requirements set out in Appendix 6 of Development Consent DA 374-11-00. A written incident notification addressing the requirements set out below will be submitted to the Planning Secretary via the Major Projects Portal within seven days after SEM becomes aware of an incident. Written notification of an incident will:

- identify the development and application number;
- provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
- identify how the incident was detected;
- identify when SEM became aware of the incident;
- · identify any actual or potential non-compliance with conditions of consent;
- describe what immediate steps were taken in relation to the incident;
- identify further action(s) that will be taken in relation to the incident; and
- identify a project contact for further communication regarding the incident.



Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, SEM will provide the Planning Secretary, relevant councils, and any other relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested by the Planning Secretary.

- a summary of the incident;
- outcomes of an incident investigation, including identification of the cause of the incident;
- details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
- details of any communication with other stakeholders regarding the incident.



11.2 COMPLAINTS

SEM will maintain a Community Complaints Line (tel: 1800 952 277) and email address (community@sunriseem.com) for the sole purpose of receiving community contacts and complaints. The Community Complaints Line number will be available on the SEM website and included in SEM'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. SEM will respond to callers on the next business day. If the issue is urgent a member of the leadership team will be contacted immediately.

SEM 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 SEM'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, SEM 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 SEM 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 SEM'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 SEM and the Project.

SEM 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, SEM will report incidents in accordance with Condition 8, Schedule 5 of Development Consent DA 374-11-00.

A review of the Project compliance with all conditions in Development Consent DA 374-11-00 and Mining Lease 1770 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 Planning Secretary to assess whether SEM is complying with the requirements in Development Consent DA 374-11-00.

11.4 EXCEEDANCES OF IMPACT ASSESSMENT CRITERIA AND/OR PERFORMANCE CRITERIA

A protocol for managing and reporting exceedances of impact assessment criteria and/or performance criteria is provided in Section 9.



11.5 ACCESS TO INFORMATION

In accordance with Condition 12, Schedule 5 of Development Consent DA 374-11-00, SEM will make the following information publicly available on its website as relevant to the stage of the development:

- the EIS (as specified in the Definitions section of Development Consent DA 374-11-00);
- current statutory approvals for the development;
- approved strategies, plans or programs required under the conditions of the consent;
- a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of the consent;
- a complaints register, which is to be updated on a monthly basis;
- any independent environmental audit, and SEM's response to the recommendations in any audit;
- any other matter required by the Planning Secretary; and
- keep this information up to date, to the satisfaction of the Planning Secretary.

11.6 NOTIFICATION OF ENVIRONMENTAL HARM

In accordance with Condition R2 of EPL 21146, SEM will notify the EPA by telephoning the Environment Line (131 555) immediately after it becomes aware of an incident causing or threatening material harm to the environment.

Furthermore, SEM will provide written details of the notification to the EPA within seven days of the date the incident occurred in accordance with Condition R2.2 of EPL 21146.



12. REFERENCES

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

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

Department of Environment and Climate Change (2011) New South Wales Road Noise Policy.

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

Department of Planning and Environment (2020) Independent Audit Post Approval Requirements.

Environment Protection Authority (2017) Noise Policy for Industry.

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

Renzo Tonin and Associates (2021) Sunrise Project – Project Execution Plan Modification Noise Assessment.

Sunrise Energy Metals (2021) Traffic Management Plan



APPENDICES

APPENDIX A

NOISE RELATED DEVELOPMENT CONSENT DA 374-11-00 CONDITIONS

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

Development Consent DA 374-11-00

chedule 3					
IOISE					Section 5.1
lours of Construction . The Applicant mu the Planning Sec	ust comply with th	e restrictions in Ta	able 1, unless othe	erwise agreed by	
able 1: Restriction on l	Hours of Construct	tion/Operation			
Activity			Operating Hours		
 Construction of gas pipelir water pipe rail siding; 	ne; eline and borefield dation camp; and	•	7 am to 6 pm Sunday	, Monday to	
 Construction materials transport route 	aterials haulage a	long the			
	perations (excludir imestone quarry s		7 am to 5 pm Sunday	, Monday to	
lote: All other operations a	are permitted 24 hour	rs per day, seven day	s per week.		
development in a	ust minimise the n accordance with th		uring construction equirements outline		
Derational Noise Cr The Applicant mu not exceed the cr	ust ensure that the riteria in Table 2.	•			To be included in future versions of the NMP prior to commencing operations.
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Deperational Noise Cr The Applicant munot exceed the cr able 2: Noise Criteria (Location and Receiver ID Abandoned (M04) Currajong Park 1 (M08) Glenburn (M10) Brooklyn (M22) Currajong Park 1 (M23)	riteria - Mine ust ensure that the riteria in Table 2. (dB(A)) – Mine Day Laeq (15 minute) 35 38 35 36 38	Evening Laeq (15 minute) 36 40 36 37 40	Nig Laeq (15 minute) 36 40 37 37	ght La1 (1 minute)	future versions of the NMP prior to commencing



NMP Section

Table A1

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

Schedule 3 Noise Acquisition Criteria

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.

Development Consent DA 374-11-00

To be included in future versions of the NMP prior to commencing operations.

NMP Section

Table 2A: Noise Acquisition Criteria (dB(A)) - Mine

Location	Day	Evening	Night
	Laeq (15 minute)	Laeq (15 minute)	Laeq (15 minute)
All privately-owned residences.	40	40	40

Note: To identify the residences referred to in Table 2A, see Appendix 4.

Noise Mitigation - Mine

3B. Upon receiving a written request from the owner of any residence listed in Table 2B, 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 Development (NSW Government, 2018). They must also be reasonable and feasible, proportionate to the level of predicted impact and directed towards reducing the noise 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.

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.

Table 2B: Land where noise mitigation measures are available on request

Location and Receiver ID
Currajong Park 2 (M08), Currajong Park 1 (M23)

Note: to identify the residences referred to in Table 2B, see Appendix 4.

Operational Noise Criteria - Limestone Quarry

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

To be included in future versions of the NMP prior to construction of the limestone quarry.

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

Location	Day Evening		Night		
	Laeq (15 minute)	Laeq (15 minute)	Laeq (15 minute)	L _{A1 (1 minute)}	
Moorelands	42	35	35	45	
Lesbina	20	25	25	45	
Eastbourne	38	35	35	45	
Gillenbine	37	35	35	45	
All other privately- owned residences	35	35	35	45	

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

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

Schedule 3 Operational Noise Criteria – Rail Siding 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					NMP Section	
					To be included in future versions of the NMP prior to construction of the rail siding.	
Location	Day	Evening	Nig	ght		
	Laeq (15 minute)	Laeq (15 minute)	Laeq (15 minute)	L _{A1 (1 minute)}		
Ballenrae West	35	35	35	47		
Glen Rock,	35	35	35	46		
All other privately-owned residences	35	35	35	45		
Note: To identify the res	sidences referred to in	Table 4, see Appendix	<i>.</i> 4.			
requirements a latest version. at the meteorol Noise Policy fo	Noise Management Requirements 6. Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions of the NSW Noise Policy for Industry (EPA, 2017), or its latest version. The noise enhancing meteorological conditions determined by monitoring at the meteorological station required under condition 25 and as defined in Part D of the Noise Policy for Industry (EPA, 2017) apply to the noise criteria in Tables 2, 2A, 3 and 4.					
 However, the n agreement with levels, and the agreement. 	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					
Operating Conditions 8. The Applicant must:					Section 8	
a) take all reasonable steps to minimise noise from the construction and operational activities, including low frequency noise and other audible characteristics, as well as road traffic noise associated with the development;					Section 8	
 b) operate a comprehensive noise management system using a combination of predictive meteorological forecasting and real-time noise monitoring data 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; 						
c) take all reasonable steps to minimise the noise impacts of the development during noise-enhancing meteorological conditions;						
d) maintain the sound power levels of mobile equipment and plant used for the development to ensure compliance with the noise criteria in this consent						
e) ensure that improvements are made to existing noise suppression equipment as improved technology becomes available, where reasonable and feasible;						
agreed by	egular attended noi the Planning Secre with the relevant co	tary) to determine	whether the devel			
 g) regularly assess the noise monitoring data and modify or stop operations on the site to ensure compliance with the relevant conditions of this consent. 						



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

Development Consent DA 374-11-00	NMP Section
Schedule 3	
Noise Management Plan	This NMP
 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 Planning Secretary. This plan must: 	
(a) be prepared in consultation with the EPA;	Section 7
(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 re noise emissions from the mine during night time operations under adverse meteorological conditions; 	
 d) include a noise monitoring program that uses: attended noise monitoring for evaluating and reporting on compliance againg the noise criteria in this consent; a combination of real-time and attended 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; and 	, d
(e) defines what constitutes a noise incident, and includes a protocol for identifying notifying the Department and relevant stakeholders of any noise incidents.	and Sections 6 and 11.1
10 The Applicant must implement the approved Noise Management Plan for the development.	



APPENDIX B

GENERAL DEVELOPMENT CONSENT DA 374-11-00 CONDITIONS

Table B1 General Development Consent DA 374-11-00 Conditions

	Development Consent DA 374-11-00	NMP Section
	Schedule 5	Time Cocacin
	In the Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.	
	Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:	Section 9.1
	 a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur; 	
	 consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and 	
	 implement remediation measures as directed by the Planning Secretary to the satisfaction of the Planning Secretary. 	
Ma	anagement 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
	 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:	Sections 8, 10 and 11
	 impacts and environmental performance of the development; 	
	 effectiveness of any management measures (see c above); 	
	 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 B1 (Continued) General Development Consent DA 374-11-00 Conditions

•	a protocol for managing and reporting any: incidents; complaints; non compliances with statutory requirements; and	Section 11.1 Section 11.2 Section 11.3
•	incidents; complaints; non compliances with statutory requirements; and	Section 11.2
•	complaints; non compliances with statutory requirements; and	Section 11.2
•	non compliances with statutory requirements; and	
•		Section 11.3
•		
	exceedances of the impact assessment criteria and/or performance criteria; and	Sections 9 and 11
h)	a protocol for periodic review of the plan.	Section 10
	The Planning Secretary may waive some of these requirements if they are cessary or unwarranted for particular management plans.	
Annual I	Review	Section 11.1
perfo	e end of March each year, the Applicant must review the environmental rmance of the development for the previous calendar year to the satisfaction of Planning Secretary. This review must:	
р	escribe the development (including any rehabilitation) that was carried out in the ast calendar year, and the development that is proposed to be carried out over the current calendar year;	
0	oclude a comprehensive review of the monitoring results and complaints records f the development over the past year, which includes a comparison of these esults against the:	
	relevant statutory requirements, limits or performance measures/criteria;	
	monitoring results of previous years; and	
	relevant predictions in the EIS;	
	lentify any non-compliance over the last year, and describe what actions were (or re being) taken to ensure compliance;	
d) ic	lentify any trends in the monitoring data over the life of the development;	
ď	lentify any discrepancies between the predicted and actual impacts of the evelopment, and analyse the potential cause of any significant discrepancies; and	
	escribe what measures will be implemented over the next year to improve the nvironmental performance of the development.	
Revision	of Strategies, Plans and Programs	Section 2
6. Withi	in 3 months of the submission of:	
a) a	nnual review under condition 5 above;	
b) ir	ncident report under condition 8 below;	
c) a	udit under condition 10 below; or	
o p	ny modification to the conditions of this consent (unless the conditions require therwise), the Applicant must review and, if necessary, revise the strategies, lans, and programs required under this consent to the satisfaction of the lanning Secretary.	



Table B1 (Continued) General Development Consent DA 374-11-00 Conditions

Development Consent DA 374-11-00	NMP Section
Schedule 5	
Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Planning Secretary for approval.	Section 2
Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.	
Community Consultative Committee	Refer to EMS
7. The Applicant must establish and operate a CCC for the development to the satisfaction of the Planning Secretary, in accordance with the Community Consultative Committee Guidelines for State Significant Project (2016), or its latest version. The Applicant must ensure at least one CCC meeting is held prior to any development at the mine, unless the Planning Secretary agrees otherwise.	
Notes:	
The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.	
In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Councils, and the local community.	
REPORTING	Section 11.1
Incident Reporting	
8. The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development) and set out the location and nature of the incident. Subsequent notification must be given and reports submitted in accordance with the requirements set out in Appendix 6.	
Regular Reporting	Sections 10.1 and 11.1
9. The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	
AUDITING	Section 10.2
10. Within 1 year of the commencement of the development after 6 May 2017, and every 3 years thereafter, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:	
aa) be prepared in accordance with the relevant Independent Audit Post Approval Requirements (DPIE 2020) or its latest version;	
 a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Planning Secretary; 	
b) include consultation with the relevant agencies;	
 assess the environmental performance of the development and assess whether it is complying with the requirements in this consent; 	
 d) include a comprehensive Hazard Audit of the development in accordance with the Department's publication Hazardous Industry Planning Advisory paper No. 5 - Hazard Audit Guidelines, including a review of the Site Safety Management System and all entries made in the incident register since the previous Audit. 	



Table B1 (Continued) General Development Consent DA 374-11-00 Conditions

	Development Consent DA 374-11-00	NMP Section
	Schedule 5	
e)	review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and	Section 10.2
(f)	recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals.	
g)	include consultation with the relevant agencies;	
h)	assess the environmental performance of the development and assess whether it is complying with the requirements in this consent;	
i)	include a comprehensive Hazard Audit of the development in accordance with the Department's publication Hazardous Industry Planning Advisory paper No. 5 - Hazard Audit Guidelines, including a review of the Site Safety Management System and all entries made in the incident register since the previous Audit.	
j)	review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and	
k)	recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals.	
wa	ote: This audit team must be led by a suitably qualified auditor, and include experts in other resources, noise, air quality, ecology, and any other fields specified by the Planning occretary.	
Se Se	Vithin 3 months of commissioning this audit, or as otherwise agreed by the Planning ecretary, the Applicant must submit a copy of the audit report to the Planning ecretary, together with its response to any recommendations contained in the audit port.	
ACCE	SS TO INFORMATION	Section 11.5
12. Th	e Applicant must:	
a)	make the following information publicly available on its website as relevant to the stage of the development:	
	• the EIS;	
	 current statutory approvals for the development; 	
	 approved strategies, plans or programs required under the conditions of this consent; 	
	 a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent; 	
	 a complaints register, which is to be updated on a monthly basis; 	
	 any independent environmental audit, and the Applicant's response to the recommendations in any audit; and 	
	any other matter required by the Planning Secretary; and	
b)	keep this information up to date, to the satisfaction of the Planning Secretary.	

