



Modification 16 Northern Tailings Storage Facility Buttress Optimisation

Appendix B
Noise Assessment



CADIA MODIFICATION 16

CADIA VALLEY OPERATIONS

NOISE IMPACT ASSESSMENT

RWDI # 2601020

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TABLE OF CONTENTS

1	INTRODUCTION	1
2	MODIFICATION OVERVIEW	3
3	REVIEW OF ENVIRONMENTAL NOISE PERFORMANCE	5
3.1	Noise Monitoring Program	5
3.2	Noise Monitoring	6
3.3	Noise-Related Complaints	8
3.4	Regulatory Notices and Actions Related to Noise	8
4	NOISE-SENSITIVE RECEIVERS	9
5	OPERATIONAL NOISE CRITERIA	11
5.1	Assessment Criteria	11
5.1.1	Noise Impact Assessment Criteria	11
5.1.2	Land Acquisition Criteria	12
5.1.3	Cumulative Noise Criteria	12
5.2	Modifying Factor Corrections	13
5.3	Land Area Noise Criteria	14
6	OPERATIONAL NOISE ASSESSMENT	16
6.1	Noise Modelling Methodology	16
6.1.1	Predictive Noise Model	16
6.1.2	Meteorology	16
6.1.3	Noise Mitigation and Management Measures	17
6.1.4	Baseline Noise Model	17
6.1.5	Noise Assessment Scenario	18
6.1.6	Indicative Mobile Equipment and Plant	20
6.1.7	Indicative Sound Power Levels	20
6.2	Low-Frequency Noise Assessment	21
6.3	Operational Noise Levels Assessment	21
6.3.1	Predicted Noise Levels	21
6.3.2	Discussion of Noise Results	21
6.4	Land Area Noise Assessment	22
6.5	Cumulative Noise Levels Assessment	22
6.5.1	Noise from Flyers Creek Wind Farm	22



6.5.2	Cumulative Noise Predictions	23
6.6	Maximum Noise Level Event Assessment.....	24
6.6.1	Maximum Noise Level Event Assessment – Methodology.....	24
6.6.2	Maximum Noise Level Predictions.....	25
7	CONCLUSION.....	26
8	STATEMENT OF LIMITATIONS.....	27
9	REFERENCES.....	28

LIST OF APPENDICES

Appendix A:	Glossary of Acoustic Terms
Appendix B:	Land Ownership Details (Redacted for Exhibition)
Appendix C:	Low-Frequency Noise Assessment
Appendix D:	Operational Noise Predictions
Appendix E:	Noise Contours – Operational Noise Assessment Noise
Appendix F:	Contours – Land Area Noise Assessment Maximum Night-Time
Appendix G:	Noise Level Predictions

LIST OF FIGURES

Figure 1-1: Regional Location	2
Figure 2-1: General Arrangement of Modification 16.....	4
Figure 3-1: Compliance Noise Monitoring Locations - Cadia Valley Operations	7
Figure 4-1: Land Tenure - Cadia Valley Operations.....	10
Figure 6-1: Flyers Creek Wind Farm Noise Predictions (VIPAC 2018).....	23

LIST OF TABLES

Table 3-1: Number of Noise-Related Complaints.....	8
Table 5-1: Noise Impact Assessment Criteria (dB[A]) – Cadia Valley Operations	11
Table 5-2: Applicable Meteorological Conditions.....	12
Table 5-3: Land Acquisition Criteria (dB[A]) – Cadia Valley Operations.....	12
Table 5-4: Cumulative Noise Criteria (dB[A]) – Cadia Valley Operations	13
Table 5-5: One-third Octave Low Frequency Noise Thresholds	14
Table 5-6: Land Area Assessment Noise Criteria (dB[A]).....	15
Table 6-1: Assessment Meteorological Conditions	16
Table 6-2: Indicative Modification 16 Schedule	19
Table 6-3: Indicative Modification 16 Mobile Equipment and Plant	20
Table 6-4: Indicative Modification 16 Mobile Equipment and Plant Sound Power Levels	20
Table 6-5: Maximum Noise Level Event Sources and Sound Power Levels	24



1 INTRODUCTION

Cadia Valley Operations (hereafter referred to as Cadia) is located approximately 25 kilometres (km) south-west of Orange, in the Central Tablelands of New South Wales (NSW) (**Figure 1-1**). Cadia Holdings Pty Limited (CHPL) is the owner and operator of Cadia and is a wholly owned subsidiary of Newmont Corporation (Newmont). Project Approval 06_0295 (PA 06_0295) for Cadia was granted by the NSW Minister for Planning under Part 3A of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) on 6 January 2010.

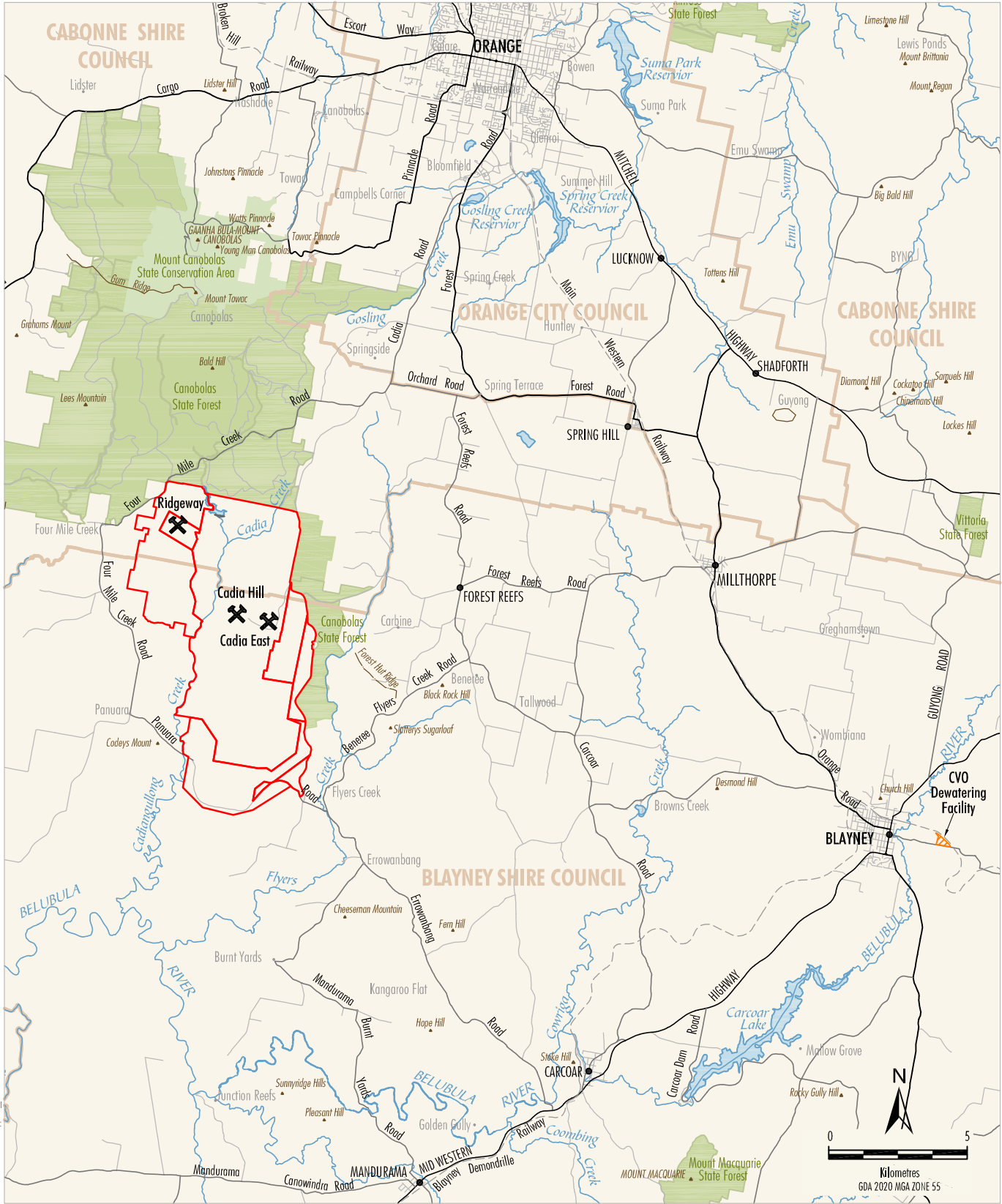
CHPL proposes a modification to PA 06_0295 (Modification 16), which would be sought under section 4.55(2) of the EP&A Act. The main elements of Modification 16 include:

- using recovered sand to buttress the southern wall of the Northern Tailings Storage Facility (NTSF);
- emplacing/stockpiling excess recovered sand within the approved Southern Tailings Storage Facility (STSF) disturbance footprint, and
- integrating the recovered sand demonstration embankment approved under Modification 15 to PA 06_0295 with the proposed NTSF southern wall recovered sand buttress, with the integrated structure to remain and form part of the final landform.

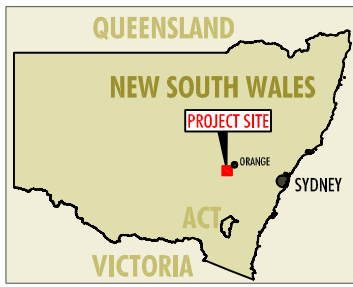
RWDI Australia (RWDI) was commissioned by CHPL to prepare a noise assessment report associated with the noise emissions from Modification 16. Noise impacts are assessed according to criteria set out in PA 06_0295 with consideration of the following NSW noise policies:

- *Noise Policy for Industry (NPfI)* (NSW Environmental Protection Authority [EPA], 2017); and
- *Voluntary Land Acquisition and Mitigation Policy (VLAMP)* (NSW Government, 2018).

As no changes are proposed with regard to the Cadia Dewatering Facility (CDF), blasting activities, rail transportation noise and road traffic noise, those aspects of the operations were not required to be addressed in the noise assessment.



Source: NSW Spatial Services (2020);
Department of Primary Industries and Regional Development (2025)



- LEGEND**
- Mining Lease Boundary
 - Local Government Area
 - Road
 - Railway
 - NSW State Forest
 - NPWS Reserve



CADIA VALLEY OPERATIONS
Regional Location

Figure 1-1

2 MODIFICATION OVERVIEW

The proposed Modification 16 seeks approval to reuse the hydrocyclone infrastructure established as part of the Hydrocyclone Sands Trial Tailings Pilot Plant to produce, transport and use the recovered sand, in addition to rock, to buttress the southern wall of the NTSF. The construction of the buttress would involve the following general steps:

- Construction of a rock platform (approved via Modification 15) and an underdrainage system made via crushing rock sourced from the South Waste Rock Dump.
- Formation of successive 'cells' above the underdrainage system using recovered sands with a slope and drainage box to assist with dewatering.
- Pumping of recovered sand and emplacement in cells.
- Use of tractors to compact the recovered sand within cells.
- Armouring of the recovered sand buttress outer surface with rock.
- Rehabilitation of the final profile as a part of closure of the tailings storage facilities (TSFs).

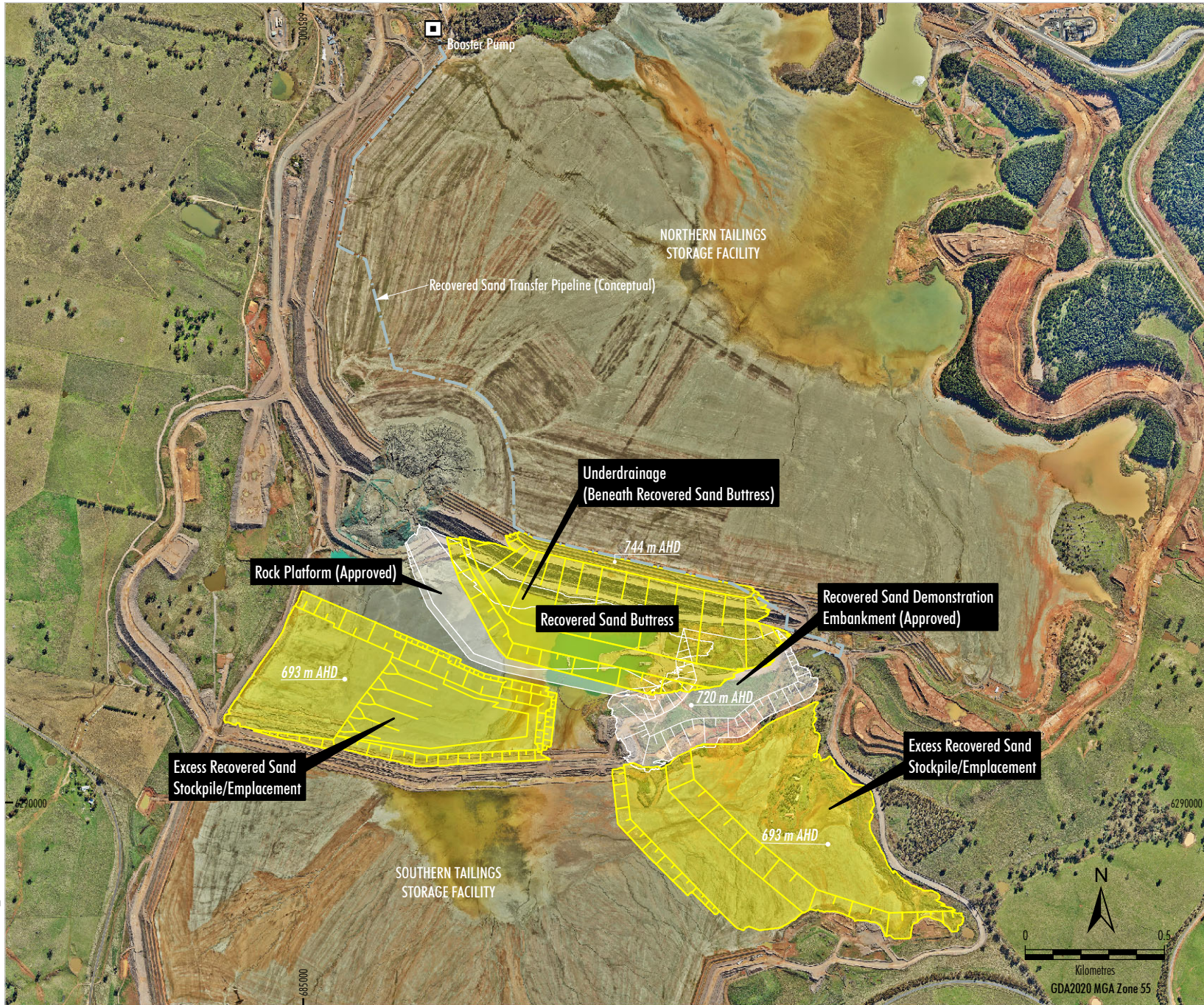
Schedule 2 Condition 6 of PA 06_0295 states that the Proponent shall not process more than 32 million tonnes of ore from the project in a calendar year, or the alternative maximum of 35 million tonnes of ore which is subject to satisfying the requirements as described in condition 6A. The ore treatment process at Cadia operates at a consistent ore throughput, and given this, recovered sand would be delivered from the ore processing circuit at a consistent flowrate (i.e. other than during shut down periods). Based on the approved maximum ore processing rate of 35 million tonnes per annum (Mtpa), approximately 10.5 Mtpa or 29,000 tonnes per day of recovered sand would be produced and used to construct the demonstration embankment.

Due to constraints associated with the cell availability for recovered sands placement within the buttress, supporting stockpiling locations are required. This excess recovered sand, that is not directly emplaced in the buttress, would be hydraulically emplaced and stockpiled on the STSF, and spread with rubber tracked/tyred equipment, as required.

The buttressing, recovered sand emplacement/stockpiling works, as well as construction of the sand demonstration embankment approved under Modification 15 would be undertaken 24 hours a day, seven days a week to align with the mill production and operational requirements.

All proposed recovered sand buttressing and emplacement/stockpiling activities and infrastructure would be located within Cadia's existing/approved disturbance footprint.

Figure 2-1 shows the general arrangement of Modification 16.



- LEGEND**
- Booster Pump
 - Recovered Sand Transfer Pipeline (Conceptual)
 - Proposed Modification 16 Elements
 - Approved Elements

Source: NSW Spatial Services (2023); GHD (2025)
 Orthophoto: Newmont (2023)

Newmont
 CADIA
 CADIA VALLEY OPERATIONS
 General Arrangement of
 Modification 16

Figure 2-1

NEV-25-02 MOD16 App. NA_2014

3 REVIEW OF ENVIRONMENTAL NOISE PERFORMANCE

3.1 Noise Monitoring Program

Noise management at Cadia is currently undertaken in accordance with PA 06_0295 and Environment Protection Licence (EPL) 5590 noise limits and the *Noise Monitoring Program (NMP)* (Newcrest Mining Limited [now Newmont], 2021), which outlines:

- noise management and control measures;
- noise monitoring programs;
- consultation and communication approaches; and
- management of exceedances and complaints.

Compliance noise monitoring conducted at Cadia in accordance with the *NMP* includes:

- attended noise monitoring undertaken on a six-monthly basis (prior to 2025) and once every two months (2025 onward) by an independent acoustic consultant to assess compliance with relevant criteria.

It is noted that CHPL has submitted a revised Noise Management Plan to Department¹ for approval reflecting new requirements included in the consolidated PA 06_0295. The new requirements include (but are not limited to):

- operation of a comprehensive noise management system that uses 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 pro-active and reactive noise mitigation measures to ensure compliance with the relevant PA conditions; and
- regular attended noise monitoring conducted at least once every two months to assess compliance with the relevant PA conditions.

CHPL currently undertakes noise monitoring in accordance with the requirements of PA 06_0295. While these conditions outline specific compliance monitoring obligations, CHPL also employs additional unattended noise monitoring for operational management purposes. This unattended monitoring is not used to assess regulatory compliance, rather, it serves as an internal management tool designed to support day-to-day operational decision-making. By providing real-time information on noise emissions, the system enables CHPL to identify changing noise conditions promptly and adjust operations where necessary. This approach enhances the effectiveness of the site's noise management processes, and helps minimise the potential off-site noise impacts.

¹ Collectively refer to the NSW Department of Planning, Housing and Infrastructure and all its historical titles.

3.2 Noise Monitoring

Environmental noise performance was reviewed for the period from 2023 to 11 December 2025. Findings from the environmental noise performance review are summarised below.

Attended noise monitoring is currently being conducted at seven locations at Cadia (NM001, NM002, NM004, NM005, NM006, NM007 and NM008) and three locations at the CDF (NM014, NM015, NM016) (noting monitoring at the CDF has recently ceased as a result of negotiated agreements with the respective receivers negating monitoring requirements). The Cadia noise monitoring locations are shown in **Figure 3-1**.

Monitoring at each location comprises two 15-minute measurements during the day, evening, and night-time periods. Compliance noise monitoring assesses the measured $L_{Aeq,15min}$ and $L_{A1,1min}$ contribution from Cadia with consideration of low-frequency noise (LFN) characteristics potentially warranting modifying factor corrections according to the *Npfl*. Noise levels are assessed against PA 06_0295 noise impact assessment criteria and cumulative noise criteria.

Unattended continuous noise monitoring is conducted through a network of trailer-mounted units with directional noise monitoring, audio recording and playback capability. Continuous noise monitoring is undertaken on a rotating roster across the ten attended noise monitoring locations to monitor noise at Cadia and the CDF. The trailer-mounted noise monitoring units also provide the flexibility to move noise monitors, if necessary, in response to specific operational and community needs.

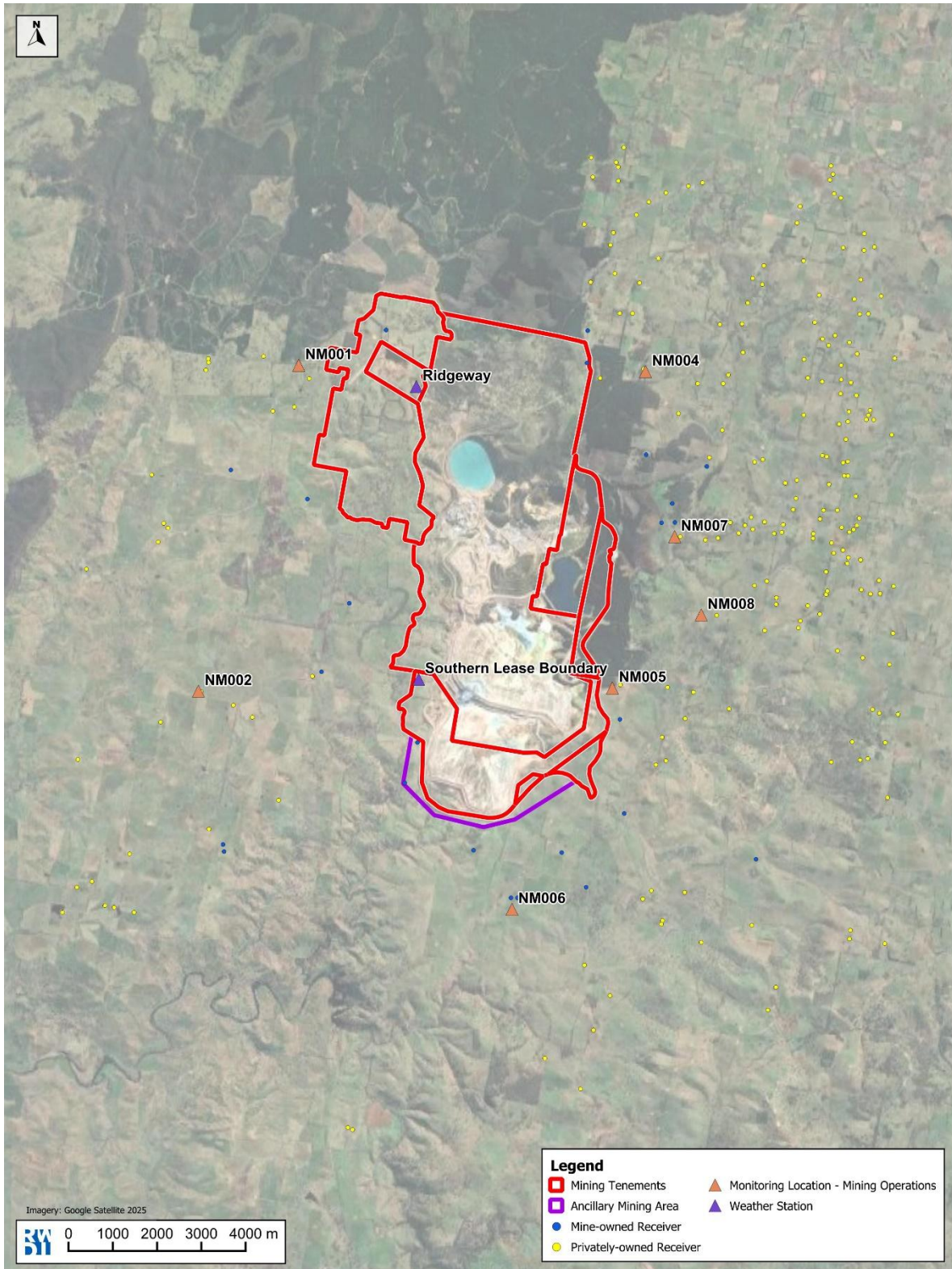


Figure 3-1: Compliance Noise Monitoring Locations - Cadia Valley Operations



3.3 Noise-Related Complaints

RWDI has also reviewed the Cadia Community Complaints Register from 2023 to 11 December 2025. Within this period, a total number of 146 noise-related complaints relevant to Cadia were received, as summarised in **Table 3-1**.

Table 3-1: Number of Noise-Related Complaints

Calendar Year	Number of Noise-Related Complaints ¹
2023	5
2024	100
2025	41

Source: Newmont, 2024a and 2025

Note:

1. Number of complaints includes the CDF, road traffic noise and blasting emission.

In response to a noise-related complaint, CHPL commences an investigation to ascertain Cadia’s noise contribution and reduce the noise or implement noise management/mitigation measures if necessary. The majority of noise complaints were from the Errowanbang area. Complaints were also received from Panuara and Forest Reefs. The nature of the complaints was generally related to a perceived increase in noise at the complainant’s property. All community complaints (including the noise-related complaints) received were investigated by CHPL and actions were implemented where appropriate (Newmont, 2025).

3.4 Regulatory Notices and Actions Related to Noise

A warning letter was issued by Department on 9 January 2023 regarding noise exceedances on 1 August 2023 and 23-24 September 2023 at Warrengong. In response, negotiation agreements were put in place with the residents. Monitoring continued at Warrengong for an additional three months without any exceedances recorded.

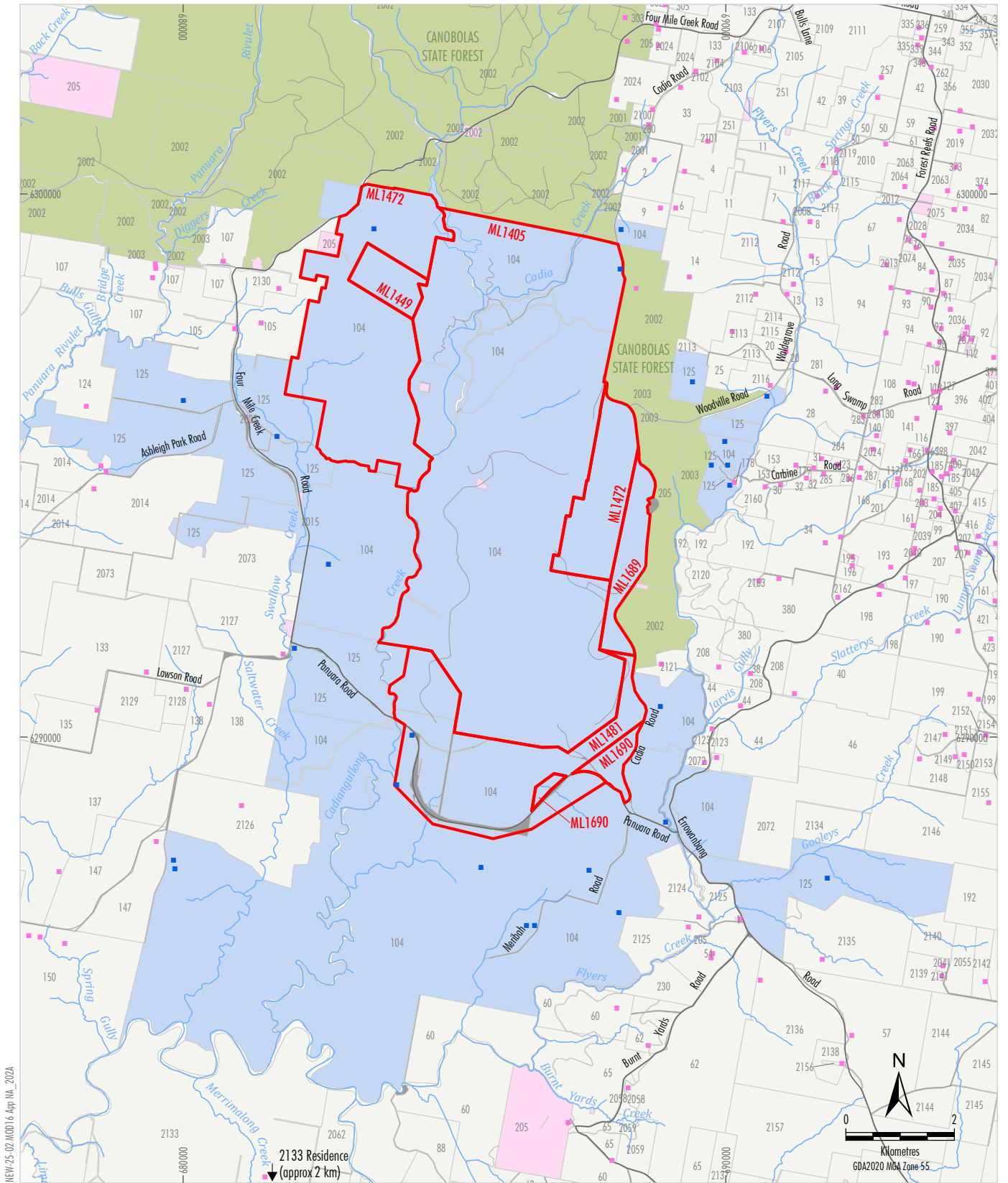
No other official warnings, cautions, penalty notices or prosecution proceedings related to noise were issued during the review period.



4 NOISE-SENSITIVE RECEIVERS

The assessment considers all surrounding noise-sensitive receivers potentially impacted by Modification 16.

Figure 4-1 shows the noise-sensitive receivers surrounding Cadia and included in the assessment. A detailed land ownership list (including geographic coordinates) is provided in **Appendix B**.



NEW-25-02 MOD16 App MA_2024

Source: NSW Spatial Services (2020);
Department of Primary Industries and Regional Development (2025)

- LEGEND**
- Mining Lease Boundary
 - CHPL Owned
 - Privately Owned
 - Local Government
 - State Government
 - Crown Land
 - State Forest
 - Road Corridor
 - Mine Owned Residence
 - Privately Owned Residence


 CADIA
CADIA VALLEY OPERATIONS
 Land Tenure - Cadia Valley Operations

Figure 4-1



5 OPERATIONAL NOISE CRITERIA

5.1 Assessment Criteria

This section summarises PA 06_0295 noise criteria relevant to Modification 16.

5.1.1 Noise Impact Assessment Criteria

PA 06_0295 noise impact assessment criteria for Cadia and relevant to Modification 16 are summarised in **Table 5-1**. CHPL is to ensure that site noise does not exceed these criteria at any privately-owned residential receivers or on more than 25 per cent (%) of any privately-owned land.

Table 5-1: Noise Impact Assessment Criteria (dB[A]) – Cadia Valley Operations

Receivers/Land	Day ($L_{Aeq,15min}$)	Evening ($L_{Aeq,15min}$)	Night-time ($L_{Aeq,15min}$)	Night-time ($L_{A1,1min}$)
2127	43	41	35	45
138	42	38	35	45
2121	42	37	35	45
2126	42	38	35	45
2128	42	38	35	45
2163	41	38	35	45
30, 38, 40, 2160	40	36	35	45
133, 208, 380	40	37	35	45
Other privately-owned residential receivers/land	40	35	35	45

Source: After PA 06_0295

Notes:

1. dB(A) = decibel (A-weighted)
2. Day = 7:00 am – 6:00 pm Monday to Saturday, and 8:00 am – 6:00 pm Sundays and Public Holidays; Evening = 6:00 pm – 10:00 pm; Night-time = all remaining periods.
3. Noise generated by Modification 16 is to be assessed in accordance with the relevant requirements of the *NPfl*.
4. Noise criteria do not apply if CHPL has an agreement with the relevant owner/s of these residences/land to generate higher noise levels and CHPL has advised the Department in writing of the terms of this agreement.

PA 06_0295 defines the meteorological conditions under which the noise impact assessment criteria apply. These conditions are summarised in **Table 5-2**. For other meteorological conditions, the applicable noise impact assessment criteria are as defined in **Table 5-1** plus 5 decibels (dB).



Table 5-2: Applicable Meteorological Conditions

Assessment Period	Meteorological Conditions
Day	Stability Categories A-D combined with wind speeds ≤ 0.5 m/s at 10 m above ground level
Evening	Stability Categories A-D combined with wind speeds ≤ 0.5 m/s at 10 m above ground level
Night-time	Stability Categories A-D combined with wind speeds ≤ 0.5 m/s at 10 m above ground level

Source: After PA 06_0295

Note:

1. Wind speeds to be measured 10 metres above ground level.
2. m/s = metres per second; m = metres.

5.1.2 Land Acquisition Criteria

PA 06_0295 states that if noise generated by Cadia exceeds the criteria presented in **Table 5-3** at any privately-owned residential receiver or on more than 25% of any privately-owned land, CHPL must, upon receiving a written request for acquisition from the landowner, acquire the land. Land acquisition criteria are only applicable under the meteorological conditions summarised in **Table 5-2**.

Table 5-3: Land Acquisition Criteria (dB[A]) – Cadia Valley Operations

Receivers/Land	Day ($L_{Aeq,15min}$)	Evening ($L_{Aeq,15min}$)	Night-time ($L_{Aeq,15min}$)
All privately-owned residential receivers/land	43	43	40

Source: After PA 06_0295

Notes:

1. dB(A) = decibel (A-weighted)
2. Day = 7:00 am – 6:00 pm Monday to Saturday, and 8:00 am – 6:00 pm Sundays and Public Holidays; Evening = 6:00 pm – 10:00 pm; Night-time = all remaining periods.
3. Noise generated by Modification 16 is to be assessed in accordance with the relevant requirements of the *NPfl*.
4. Land acquisition criteria are only applicable under the meteorological conditions summarised in **Table 5-2**.

5.1.3 Cumulative Noise Criteria

PA 06_0295 also includes cumulative noise criteria which are applicable to combined noise levels from Cadia and any other nearby industrial operations. Cumulative noise criteria relevant to Modification 16 are presented in **Table 5-4**. CHPL is to ensure that cumulative noise does not exceed these criteria at any privately-owned residential receivers or on more than 25% of any privately-owned land.

For ease of assessment, PA 06_0295 cumulative noise criteria, expressed as $L_{Aeq,Period}$ noise levels, were converted to $L_{Aeq,15min}$ noise levels by adding 3 dB following the *NPfl* methodology for standardising the L_{Aeq} noise descriptors' averaging period.



Table 5-4: Cumulative Noise Criteria (dB[A]) – Cadia Valley Operations

Receivers/Land	Day (L _{Aeq,15min})	Evening (L _{Aeq,15min})	Night-time (L _{Aeq,15min})
All privately-owned residential receivers/land	53	48	43

Source: After PA 06_0295

Notes:

1. dB(A) = decibel (A-weighted)
2. Day = 7:00 am – 6:00 pm Monday to Saturday, and 8:00 am – 6:00 pm Sundays and Public Holidays; Evening = 6:00 pm – 10:00 pm; Night-time = all remaining periods.
3. Noise generated by Modification 16 is to be assessed in accordance with the relevant requirements of the *NPfl*.
4. Criteria converted from the relevant L_{Aeq,Period} levels to L_{Aeq,15min} levels.

5.2 Modifying Factor Corrections

Where a noise source contains certain annoying characteristics (e.g., low-frequency noise, tonal noise, or intermittent noise), the *NPfl* stipulates that a penalty should be applied to the predicted noise levels before comparing with the relevant criteria. Section C1 of the *NPfl* outlines modifying factor corrections to account for these characteristics. These corrections apply at the receiver location and consider the emergence above existing ambient noise.

5.2.1.1 Low-Frequency Noise

The LFN assessment carried out for Modification 15 (*Cadia Valley Operations – Modification 15 – NSW Environment Protection Authority – Additional Clarification Which Responds to Request for Information* [Newmont, 2024b]) indicated that it is unlikely that any of the receivers surrounding Cadia would be subject to dominant LFN.

Notwithstanding, a LFN assessment has been conducted to determine the likelihood of any noise-sensitive receivers being subject to LFN from the modified operations. This is especially relevant as mobile equipment associated with the TSF rock buttressing works which were previously restricted to the day and evening periods, is being introduced at night as part of Modification 16. However, the total fleet during the day and evening periods is expected to be reduced in Modification 16. In addition, the proposed equipment fleet associated with the night-time works is significantly less than that approved during the day and evening periods under Modification 15.

Fact Sheet C of the *NPfl* prescribes a two-step methodology:

1. assessment of unbalanced spectrum (based on the difference between the C- and A-weighted predicted noise level); and
2. assessment of audibility (based on the emergence of predicted noise levels over nominated one-third octave low-frequency noise thresholds).

Two modifying factor corrections are nominated in the *NPfl*:

- 2 dB positive adjustment (evening and night-time)
 - if the C- minus A-weighted noise level over the same period is 15 dB or more, and where any of the one-third octave noise levels in Table C2 of the *NPfl* (Table 5-5) are exceeded by up to and including 5 dB and cannot be mitigated.



- 2 dB positive adjustment (daytime) and 5 dB positive adjustment (evening and night-time)
 - if the C- minus A-weighted noise level over the same period is 15 dB or more, and where any of the one-third octave noise levels in Table C2 of the *NPfl* (**Table 5-5**) are exceeded by more than 5 dB and cannot be mitigated.

Table C2 of the *NPfl* is reproduced in **Table 5-5**.

Table 5-5: One-third Octave Low Frequency Noise Thresholds

Hz/dB(Z)	One-third octave $L_{Zeq,15min}$ threshold level												
Frequency (Hz)	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160
dB(Z)	92	89	86	77	69	61	54	50	50	48	48	46	44

Source: NSW EPA, 2017

Note:

1. Hz = Hertz, dB(Z) = decibel (Z frequency weighted).

5.2.1.2 *Tonal and Intermittent Noise*

The potential for Modification 16 to generate tonal and intermittent noise was considered in the noise assessment but deemed not applicable for the following reasons:

- large-scale mining projects are not expected to generate tonal or intermittent noise due to the large number of noise sources on site and the considerably large distances separating noise sources and receivers;
- noise sources at mines are generally atonal in nature; and
- compliance noise measurements conducted for Cadia have not indicated any notable tonality or intermittency issues.

5.3 Land Area Noise Criteria

In accordance with the *VLAMP*, landowners are eligible to voluntary land acquisition rights when noise generated by a development contributes to exceedances of the *NPfl* recommended amenity noise levels plus 5 dB on more than 25% of privately-owned land where there is an existing dwelling or where a dwelling could be built under existing planning controls.

The *NPfl* sets recommended amenity noise levels for rural communities at 50, 45 and 40 dB(A) $L_{Aeq,Period}$ for day, evening and night-time, respectively. On this basis, land area assessment noise criteria have been established for Modification 16 and are summarised in **Table 5-6**. The criteria have been converted to $L_{Aeq,15min}$ noise levels by adding 3 dB following the *NPfl* methodology for standardising the L_{Aeq} noise descriptors' averaging period.



Table 5-6: Land Area Assessment Noise Criteria (dB[A])

Receiver	Land Area Noise Criteria ($L_{Aeq,15min}$)		
	Day	Evening	Night-time
All privately-owned land with existing dwelling or where a dwelling could be built under existing planning controls	58	53	48

Note:

1. dB(A) = decibel (A-weighted)
2. Day = 7:00 am – 6:00 pm Monday to Saturday, and 8:00 am – 6:00 pm Sundays and public holidays; Evening = 6:00 pm – 10:00 pm; Night-time = all remaining periods.
3. Criteria converted from the relevant $L_{Aeq,Period}$ levels to $L_{Aeq,15min}$ levels.



6 OPERATIONAL NOISE ASSESSMENT

6.1 Noise Modelling Methodology

6.1.1 Predictive Noise Model

Operational noise levels at nearby receivers have been predicted using the Environmental Noise Model (ENM), a proprietary computer program from RTA Technology Pty Ltd. This modelling software has previously been accepted by the NSW EPA and Department for use in environmental noise assessments and is recognised by all State environmental authorities throughout Australia as representing one of the most appropriate predictive methodologies currently available.

With consideration of noise characteristics for all major equipment (i.e. noise emission sources) and their location, intervening terrain to nearby receivers and local meteorology, the computer model predicts total operational $L_{Aeq,15min}$ noise levels from Cadia (incorporating Modification 16) at each noise-sensitive receiver.

Certain components of Modification 16 are proposed to operate on a 24-hour basis. Therefore, noise levels were predicted for the day (7:00 am - 6:00 pm), evening (6:00 pm - 10:00 pm) and night-time (10:00 pm - 7:00 am) periods.

6.1.2 Meteorology

As mentioned in **Section 5.1.1**, PA 06_0295 defines the meteorological conditions under which the noise impact assessment criteria apply. The assessment was based on the most adverse of those meteorological conditions, as summarised in **Table 6-1**.

Table 6-1: Assessment Meteorological Conditions

Assessment Period	Meteorological Conditions
Day	Stability Categories D combined with 0.5 m/s source-to-receiver wind speed at 10 m above ground level
Evening	Stability Categories D combined with 0.5 m/s source-to-receiver wind speed at 10 m above ground level
Night-time	Stability Categories D combined with 0.5 m/s source-to-receiver wind speed at 10 m above ground level

Note:

1. Stability Category modelled as vertical temperature gradient of -0.5 degree Celsius per 100 m.
2. m/s = metres per second; m = metres.

6.1.3 Noise Mitigation and Management Measures

6.1.3.1 "Stage 1" Fleet Mitigation Strategy

It is understood that CHPL would continue to apply the "Stage 1" fleet mitigation strategy implemented for Modification 15, and it was therefore incorporated into the modelling. The strategy targets key noise emitting equipment and involves the attenuation of exhaust and radiator louvers on the CAT 793, CAT 777, and CAT 740 haul fleets operating on the NTSF and STSF construction to achieve an overall 3 dB sound power level (SWL) reduction for each vehicle attenuated.

6.1.3.2 Pro-Active Noise Management System

In accordance with PA 06_0295 (as modified), CHPL implements a comprehensive pro-active noise management system, allowing the mine operator to prepare and modify operations to reduce noise levels if, and when, predicted adverse meteorological conditions are anticipated in order to manage compliance with noise limits. The pro-active noise management system would continue to be used for Modification 16.

6.1.4 Baseline Noise Model

Noise modelling has incorporated the additional Modification 16 noise sources into the baseline noise model consisting of all existing and approved activities at Cadia. The baseline noise model includes:

- Cadia East Project (*Cadia East Project – Noise and Blasting Impact Assessment* [Wilkinson Murray, 2009]).
- Molybdenum Recovery Plant Relocation (*Molybdenum Recovery Plant Relocation Modification – Noise Review* [Wilkinson Murray, 2018]).
- Operation of VR8 Ventilation Site (*Cadia VR8 Surface Ventilation Fan Installation* [Howden Australia Pty Ltd, 2019]).
- Operation of the Tailings Pilot Plant (*Cadia Valley Operations – Tailings Pilot Plant – Noise Review* [Wilkinson Murray, 2020]).
- Operation of the Regrind Concentrator (*Cadia Valley Operations – Regrind Gravity Concentrator – Generally in Accordance Assessment* [RWDI, 2023a]).
- Construction of the NTSF irrigation system (*Cadia Valley Operations – NTSF Irrigation System – Generally in Accordance Assessment* [RWDI, 2023b]).
- Modification 15 (*Cadia Modification 15 – Cadia Valley Operations – Noise Impact Assessment* [RWDI, 2023c]).

The baseline noise model was based on the Modification 15 Noise Impact Assessment (RWDI, 2023c). For the day and evening periods where several scenarios were used, the most suitable scenarios were selected, namely:

- Day: Late Q4 2026
- Evening: Early Q2 2027



Relevant noise generating activities associated with Modification 15 were included in the baseline noise model (e.g. NTSF and STSF rock buttressing activities, operation of the Ridgeway Underground Mine, realignment of Panuara Road and the Belubula River Pipeline, etc.) except for the following changes:

- fixed infrastructure associated with the hydrocyclone sands demonstration embankment (pilot plant) located in the north of the STSF for Modification 15 was relocated to the ore processing area; and
- all mobile equipment associated with the demonstration embankment was removed from the baseline noise model and replaced with the relevant recovered sands fleet for Modification 16.

Modification 16 proposes a cell construction methodology to buttress the NTSF southern embankment, thus replacing the approved rock buttressing in that area. It is envisaged however that mobile equipment associated with rock buttressing at the NTSF southern embankment and approved for Modification 15 would not immediately stop but rather be used during the early phase of the proposed Modification 16 buttress construction activities (to establish the rock platform and underdrainage). As such, rock buttressing activities at the NTSF southern embankment were conservatively kept in the baseline noise model to represent the worst-case noise emissions. It is also noted that the construction of the rock buttress would continue to be undertaken in the areas of the TSF which are not the subject of this modification.

6.1.5 Noise Assessment Scenario

Table 6-2 provides an indicative project schedule for Modification 16.

Construction activities, proposed during the day and evening periods (consistent with NTSF and STSF construction activities in Modification 15), would involve rock platform extension (the rock platform is approved via Modification 15), profiling and underdrainage works at the NTSF southern embankment in preparation of recovered sand tailings placement. The construction phase would be required both before and during the early stages of recovered sand placement, with an overlap of construction and operation activities anticipated to last approximately six months. This period, which represents worst-case noise emissions from Modification 16, will form the basis of the assessment.



Table 6-2: Indicative Modification 16 Schedule

Activities	Indicative Period	Month												
		1	2	3	4	5	6	7	8	9	10	11	12	13 - 24
Construction Phase														
Rock platform extension and profiling activities	6 months													
Underdrainage activities	9 months													
Operational Phase														
Recovered sand tailings placement	2 years													



6.1.6 Indicative Mobile Equipment and Plant

Table 6-3 summarises all indicative mobile equipment and plant added for Modification 16. Detailed description of all equipment/plant associated with the baseline noise model is provided in the Modification 15 Noise Impact Assessment (RWDI, 2023c).

Table 6-3: Indicative Modification 16 Mobile Equipment and Plant

Equipment	Function	Quantity	Location	Hours of Operation
John Deere Tractor 9R 390 (rubber tyre)	Cell compaction	4	NTSF southern embankment	24 hour, 7 days
Excavator CAT 336	Pipe movement between cells	1	NTSF southern embankment	24 hour, 7 days
CAT D8 Dozer (rubber tyre)	Management of "off-spec" material	1	Recovered Tailings Stockpile 2	Day only ¹
NTSF Booster Station Pumps	Transport of tailings through pipeline	3	Northwest of NTSF	24 hour, 7 days

Note:

1. Day = 7:00 am – 6:00 pm Monday to Saturday, and 8:00 am – 6:00 pm Sundays and Public Holidays.

6.1.7 Indicative Sound Power Levels

Table 6-4 summarises the SWLs of indicative mobile equipment and plant added for Modification 16.

Table 6-4: Indicative Modification 16 Mobile Equipment and Plant Sound Power Levels

Equipment	Sound Power Level per Item (dB[A])	Reference
CAT D8 Dozer (rubber tyre)	116	Newmont (2025)
John Deere Tractor 9R 390 (rubber tyre)	108 ¹	RWDI proprietary database
Excavator CAT 336	105	RWDI proprietary database
NTSF Booster Station Pumps	85	Newmont (2025)

Note:

1. Sound power level conservatively based on CAT 980 wheel loader.
2. dB(A) = decibel (A-weighted)

It is noted that the total SWL for all equipment added as part of Modification 16 was determined to be approximately 118 dB(A) for the day, and 115 dB(A) for both evening and night-time. This is negligible when compared with the total SWL of the approved Cadia operations (i.e. 138 dB[A], 137 dB[A] and 133 dB[A] for day, evening and night-time, respectively).

6.2 Low-Frequency Noise Assessment

A LFN assessment was conducted to determine whether any noise-sensitive receivers may be subject to dominant LFN content from Modification 16. The assessment is included in **Appendix C**.

The Modification 16 fleet is not anticipated to affect the noise profile during the day and evening periods where noise levels are dominated by existing and approved mobile fleet. Whilst Modification 16 is expected to affect the site's noise profile at night with the introduction of mobile equipment for the NTSF construction, the proposed equipment fleet associated with the night-time works is significantly less than that approved during the day and evening periods under Modification 15. Notwithstanding, the LFN assessment was focused on the night-time period only.

The findings indicate that it is unlikely the surrounding community would be impacted by LFN from Cadia, and no modifying factor correction is warranted for Modification 16.

6.3 Operational Noise Levels Assessment

6.3.1 Predicted Noise Levels

Predicted $L_{Aeq,15min}$ operational noise levels for the day, evening and night-time periods are presented in **Appendix D**. Results represent the assessment meteorological condition (**Table 6-1**) resulting in the maximum predicted noise level. Mine-owned residential receivers are included for information only.

To provide contextualisation for the assessment, **Appendix D** also includes a comparison with the approved noise levels (Modification 15).

Figures showing indicative day, evening and night-time noise contours are included in **Appendix E**. Contour lines are presented for PA 06_0295 noise impact assessment criteria.

6.3.2 Discussion of Noise Results

The noise modelling results indicate that operational noise predictions would comply with the noise impact assessment criteria (**Table 5-1**) at all privately-owned residential receivers during the day, evening and night-time periods.

The evening prediction at receiver 138 incorporates pro-active noise mitigation measures to address a negligible 1 dB exceedance. Pro-active noise mitigation measures at the receiver were already assumed in the Modification 15 Noise Impact Assessment (RWDI, 2023c) and the proposed modification would not be expected to increase its noise levels.

It is noted that the evening noise level at receiver 2128 was found to decrease when compared with Modification 15, resulting in compliance. As such, the predicted noise level at the receiver would no longer require pro-active noise mitigation measures (as was the case for Modification 15).

Noise levels are generally found to decrease during the day and evening periods when compared with Modification 15. This is primarily due to:

- the removal of the mobile equipment associated with the approved (Modification 15) recovered sands demonstration embankment mobile plant during those periods. and
- the reduced height of modelled noise sources for the rock platform/underdrainage compared with Modification 15.

At night, noise levels are generally found to increase due to the recovered sand tailings placement operation, however, are predicted to comply with the approved night-time noise limits.

As such, Modification 16 is expected to have no to very little effect on the resultant noise levels (depending on the location of noise sources relative to receivers).

6.4 Land Area Noise Assessment

An assessment of potential impacts on privately-owned land (vacant or otherwise) has been conducted in accordance with the *VLAMP*.

Noise contours representing land area noise assessment criteria (**Table 5-6**) have been developed for all assessment periods and are included in **Appendix F**. Review of the contours indicate that noise generated by Modification 16 would comply with the land area noise assessment criteria on all privately-owned land (vacant or otherwise).

6.5 Cumulative Noise Levels Assessment

A cumulative noise assessment was conducted to consider impacts from Modification 16 and the only other significant industrial operation nearby, namely the Flyers Creek Wind Farm, located approximately 3 km south-east of Cadia.

Cumulative noise impacts are assessed against PA 06_0295 cumulative noise criteria (**Table 5-4**).

6.5.1 Noise from Flyers Creek Wind Farm

Predicted noise levels have been sourced from the Flyers Creek Wind Farm noise assessment prepared in support of the Modification 4 Environmental Assessment (EA) (*Flyers Creek Wind Farm NSW – Noise Assessment of Planning Modification 4* [VIPAC, 2018]).

The noise levels generated by the Flyers Creek Wind Farm are proportional to wind speed (i.e. as wind speed increases the noise level at the receivers also increase). PA 06_0295 noise criteria apply only under wind speeds ranging up to 0.5 m/s, with a 5 dB allowance applicable for stronger wind conditions. Therefore, during periods with potentially higher noise levels generated by the Flyers Creek Wind Farm, noise from Cadia would benefit from a 5 dB allowance.

Wind speeds considered in the Flyers Creek Wind Farm EA are based on a hub height of 92 m above ground level (AGL). A wind gradient predictive tool was used to convert wind speeds at different heights, and it was found that a 0.5 m/s wind at 10 m AGL would be equivalent to wind speeds of less than 3 m/s at hub height.



Based on the wind farm noise predictions, noise levels from the turbines with 3 m/s winds (hub height) are expected to be less than 25 dB(A). **Figure 6-1** presents a sample set of the predicted noise levels from the Flyers Creek Wind Farm EA.

Table B-1: Predicted Noise Levels (L_{Aeq} dB(A)) for Relevant Sites at Different Wind Speeds Using ISO9613.

Relevant Receiver	Wind Speed ms^{-1} (at 92m AGL)										
	3	4	5	6	7	8	9	10	11	12	13
Criteria set: R012 - Errowanbang											
Criteria	35	35	36	37	38	39	40	41	42	43	44
R001	17.4	17.4	19.4	23.4	26.8	29.9	31.4	31.9	31.9	31.9	31.9
R005	19.0	19.0	21.0	25.0	28.4	31.5	33.0	33.5	33.5	33.5	33.5
R007	7.6	7.6	9.6	13.6	17.0	20.1	21.6	22.1	22.1	22.1	22.1
R008	8.2	8.2	10.2	14.2	17.6	20.7	22.2	22.7	22.7	22.7	22.7
R009	19.2	19.2	21.2	25.2	28.6	31.7	33.2	33.7	33.7	33.7	33.7
R010	21.3	21.3	23.3	27.3	30.7	33.8	35.3	35.8	35.8	35.8	35.8
R011	19.1	19.1	21.1	25.1	28.5	31.6	33.1	33.6	33.6	33.6	33.6
R012	17.4	17.4	19.4	23.4	26.8	29.9	31.4	31.9	31.9	31.9	31.9
R013	17.4	17.4	19.4	23.4	26.8	29.9	31.4	31.9	31.9	31.9	31.9
R014	21.4	21.4	23.4	27.4	30.8	33.9	35.4	35.9	35.9	35.9	35.9
R015	15.7	15.7	17.7	21.7	25.1	28.2	29.7	30.2	30.2	30.2	30.2
R016	16.6	16.6	18.6	22.6	26.0	29.1	30.6	31.1	31.1	31.1	31.1
R017	16.6	16.6	18.6	22.6	26.0	29.1	30.6	31.1	31.1	31.1	31.1
R046	18.9	18.9	20.9	24.9	28.2	31.4	32.9	33.3	33.3	33.3	33.3
R047	16.7	16.7	18.7	22.7	26.1	29.2	30.7	31.2	31.2	31.2	31.2
R048	19.1	19.1	21.1	25.1	28.5	31.6	33.1	33.6	33.6	33.6	33.6
R057	18.7	18.7	20.7	24.7	28.1	31.2	32.7	33.2	33.2	33.2	33.2

Figure 6-1: Flyers Creek Wind Farm Noise Predictions (VIPAC 2018)

6.5.2 Cumulative Noise Predictions

When considering noise emissions from Modification 16 at all privately-owned residential receivers without noise agreements, the maximum $L_{Aeq,15min}$ noise levels for the day, evening and night-time periods are predicted at 42 dB(A), 41 dB(A) and 35 dB(A), respectively. Adding a contribution of 25 dB(A) from the Flyers Creek Wind Farm (representing the highest noise emissions with 3 m/s winds at hub height) would comply with the $L_{Aeq,15min}$ cumulative noise criteria of 53/48/43 dB(A) for the day/evening/night-time periods, respectively (**Table 5-4**).

For further analysis, it was noted that the highest noise level predicted in the Flyers Creek Wind Farm EA was 41 dB(A) with 12 m/s winds (hub height). This level was predicted at receiver R003 (VIPAC, 2018) which is a wind farm-owned receiver located off Errowanbang Road south of the Flyers Creek Wind Farm. The predicted noise levels at receivers closer to Cadia were generally found to range between 25 and 35 dB(A) with 12 m/s winds (hub height). These levels confirm that exceedances of the cumulative noise criteria would not be expected even when considering Modification 16’s maximum noise predictions.



We can conclude that cumulative noise emissions associated with Modification 16 would not impact on the acoustic amenity of the surrounding community.

6.6 Maximum Noise Level Event Assessment

It is proposed to introduce mobile equipment for recovered sand tailings placement at night as part of Modification 16 (i.e. tractors and an excavator [Table 6-3]). Although not noise intensive, these activities would generate new maximum noise level events potentially causing sleep disturbance. As such, a maximum noise level assessment was conducted, and for completeness, the assessment has included all (approved) activities potentially generating maximum noise level events in and around the ore processing area.

For assessment, $L_{A1,1min}$ noise predictions were compared against PA 06_0295 $L_{A1,1min}$ night-time noise criteria (Table 5-1) applicable for privately-owned residential receivers.

6.6.1 Maximum Noise Level Event Assessment – Methodology

An ENM noise model was developed to predict $L_{A1,1min}$ noise emissions from Modification 16. Modelling considered the same meteorological conditions as the operational noise assessment (Table 6-1).

Maximum noise level event sources considered for the assessment and their typical SWLs are summarised in Table 6-5. As a conservative measure, the upper end of the nominated SWL range has been assumed. Note that the SWLs are representative of L_{AFmax} noise levels; however, it was conservatively assumed that they would be equivalent to $L_{A1,1min}$ SWLs for the purpose of the assessment.

Table 6-5: Maximum Noise Level Event Sources and Sound Power Levels

Maximum Noise Level Event Sources	Typical L_{AFmax} ¹ Sound Power Level per event (dB[A])
Dozer track noise (assuming 2 nd gear operation)	114-128
Impact noise associated with trucks, dozers, loaders and excavators travelling/manoeuvring	113-118
Maximum engine noise associated with tractors	113
Impact noise from infrastructure at Ore Processing Area	110-125

Note:

- $L_{A1,1min}$ sound power levels are conservatively assumed to be equivalent to L_{AFmax} sound power levels for the assessment.
- dB(A) = decibel (A-weighted)

All potential maximum noise level events were predicted separately, with only the highest predicted $L_{A1,1min}$ noise level considered for each receiver. As potential maximum noise level events would occur during ongoing operations, the resultant $L_{A1,1min}$ level was added to the $L_{Aeq,15min}$ operational noise prediction (Appendix D) before assessment. This methodology may at times be conservative as $L_{Aeq,15min}$ noise emissions and maximum noise level events may be subject to different controlling meteorological conditions.



6.6.2 Maximum Noise Level Predictions

Predicted night-time $L_{A1,1min}$ noise levels at privately-owned residential receivers are summarised in **Appendix G**. Mine-owned residential receivers are included for information only.

Noise results indicate that night-time $L_{A1,1min}$ noise levels would comply with the maximum noise level criteria at all privately-owned residential receivers and therefore Modification 16 is not expected to cause sleep disturbance in the surrounding community.

7 CONCLUSION

CHPL is proposing to use a cell construction methodology to buttress the southern wall of the NTSF, using recovered sand produced from the hydrocyclone sands plant to be relocated at the ore processing area. The proposed buttressing activities would be undertaken on a 24 hour a day, seven days a week basis.

The assessment has addressed potential noise impacts associated with Modification 16, assessing operational noise against the criteria set out in PA 06_0295 and the *VLAMP*. Findings were as follows:

- Operational noise assessment: Operational noise levels from Modification 16 were found to comply with PA 06_0295 noise impact assessment criteria at all surrounding privately-owned residential receivers during the day, evening and night-time periods.
The evening prediction at receiver 138 incorporates pro-active noise mitigation measures, which were developed for and consistent with Modification 15. The proposed Modification 16 would not be expected to increase noise levels at receiver 138.
Whilst noise levels are generally found to decrease during the day and evening periods when compared with Modification 15, noise levels at night are generally found to increase due to the recovered sand tailings placement operation; however, are predicted to comply with the approved night-time noise limits.
- Low-frequency noise assessment: A LFN assessment was conducted and indicated that it is unlikely any of the noise-sensitive receivers surrounding the site would be subject to dominant low-frequency content warranting modifying factor corrections.
- Land area noise assessment: A land area noise assessment was carried out and indicated that noise levels would comply with the relevant *VLAMP* land area noise assessment criteria at all surrounding privately-owned land (vacant or otherwise).
- Cumulative noise assessment: Cumulative operational noise from Modification 16 and the Flyers Creek Wind Farm was considered and found to comply with PA 06_0295 cumulative noise criteria at all surrounding privately-owned residential receivers during the day, evening and night-time periods.
- Maximum noise level event assessment: An assessment of maximum noise level events potentially generated by Modification 16 was conducted and demonstrated compliance with the relevant sleep arousal noise criteria.

In conclusion, the potential operational noise emissions associated with Modification 16 would comply with the approved noise criteria at all noise-sensitive receivers and would therefore not impact on the acoustic amenity of the surrounding community.



8 STATEMENT OF LIMITATIONS

This report entitled *Cadia Modification 16 – Noise Impact Assessment*, dated 16 December 2025, was prepared by RWDI Australia Pty Ltd (“RWDI”) for Newmont Corporation (Australia) (“Client”). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein (“Project”). The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared. Because the contents of this report may not reflect the final design of the Project or subsequent changes made after the date of this report, RWDI recommends that it be retained by Client during the final stages of the project to verify that the results and recommendations provided in this report have been correctly interpreted in the final design of the Project.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this report carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.

9 REFERENCES

Howden Australia Pty Ltd (2019) *Cadia VR8 Surface Ventilation Fan Installation*

Newcrest Mining Limited (2021) *Noise Monitoring Program*

Newmont Corporation (Australia) (2024a) *Cadia Community Complaints Cumulative Register July 2014 –December 2024*

Newmont Corporation (Australia) (2024b) *Cadia Valley Operations – Modification 15 – NSW Environment Protection Authority – Additional Clarification Which Responds to Request for Information*

Newmont Corporation (Australia) (2025) *Cadia Community Complaints Register 2025*

NSW Environmental Protection Authority (2017) *Noise Policy for Industry*

NSW Government (2018) *Voluntary Land Acquisition and Mitigation Policy*

RWDI Australia Pty Ltd (2023a) *Cadia Valley Operations – Regrind Gravity Concentrator – Generally in Accordance Assessment*

RWDI Australia Pty Ltd (2023b) *Cadia Valley Operations – NTSF Irrigation System – Generally in Accordance Assessment*

RWDI Australia Pty Ltd (2023c) *Cadia Modification 15 – Cadia Valley Operations – Noise Impact Assessment*

VIPAC (2018) *Flyers Creek Wind Farm NSW – Noise Assessment of Planning Modification 4*

Wilkinson Murray Pty Limited (2009) *Cadia East Project – Noise and Blasting Impact Assessment*

Wilkinson Murray Pty Limited (2018) *Molybdenum Recovery Plant Relocation Modification – Noise Review*

Wilkinson Murray Pty Limited (2020) *Cadia Valley Operations – Tailings Pilot Plant – Noise Review*

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APPENDIX A

GLOSSARY OF ACOUSTIC TERMS



Most environments are affected by environmental noise which continuously varies, largely as a result of road traffic. To describe the overall noise environment, a number of noise descriptors have been developed and these involve statistical and other analysis of the varying noise over sampling periods, typically taken as 15 minutes. These descriptors, which are demonstrated in the graph below, are here defined.

L_{Amax} – The maximum noise level (L_{Amax}) is the maximum level over a sample period, measured on fast response, during the sample period.

L_{A1} – The L_{A1} level is the noise level which is exceeded for 1 percent (%) of the sample period. During the sample period, the noise level is below the L_{A1} level for 99% of the time.

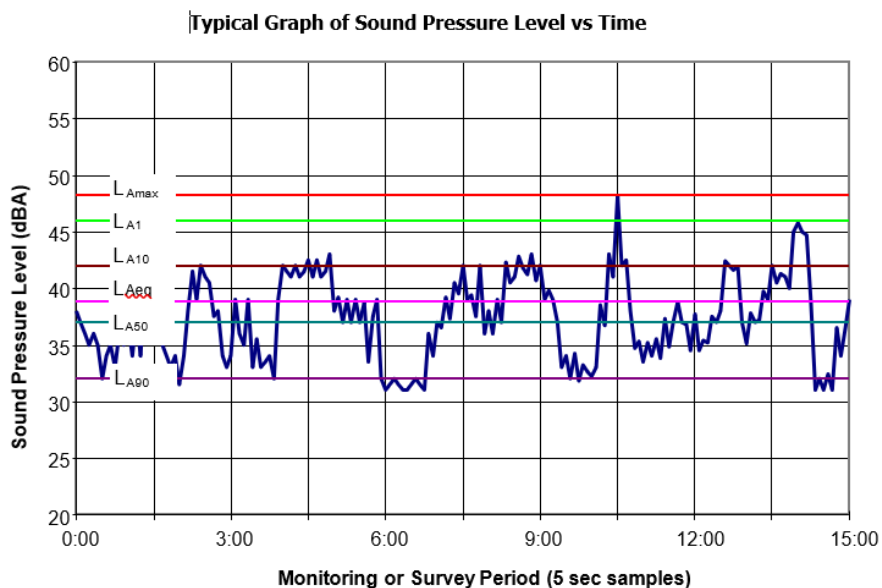
L_{A10} – The L_{A10} level is the noise level which is exceeded for 10% of the sample period. During the sample period, the noise level is below the L_{A10} level for 90% of the time. The L_{A10} is a common noise descriptor for environmental noise and road traffic noise.

L_{A90} – The L_{A90} level is the noise level which is exceeded for 90% of the sample period. During the sample period, the noise level is below the L_{A90} level for 10% of the time. This measure is commonly referred to as the background noise level.

L_{Aeq} – The equivalent continuous sound level (L_{Aeq}) is the energy average of the varying noise over the sample period and is equivalent to the level of a constant noise which contains the same energy as the varying noise environment. This measure is also a common measure of environmental noise and road traffic noise.

ABL – The Assessment Background Level is the single figure background level representing each assessment period (daytime, evening and night-time) for each day. It is determined by calculating the 10th percentile (lowest 10th percent) background level (L_{A90}) for each period.

RBL – The Rating Background Level for each period is the median value of the ABL values for the period over all of the days measured. There is therefore an RBL value for each period (daytime, evening and night-time).



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APPENDIX B

**LAND OWNERSHIP DETAILS
(REDACTED FOR EXHIBITION)**

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APPENDIX C

LOW-FREQUENCY NOISE ASSESSMENT



C.1 Low-Frequency Noise Assessment - Representative Receivers

For practical reasons, the Low-Frequency Noise (LFN) assessment was conducted for a selection of key receivers deemed representative of various zones surrounding Cadia where privately-owned residential receivers are likely to be subject to similar LFN content.

The LFN zones and representative receivers are shown in **Figure C-1** and summarised in **Table C-1**.

Table C-1: Representative Receivers for LFN Assessment

LFN Zone	Receiver	Bearing from Cadia
1	280	NNE
2	39	NE
3	25	ENE
4	2117	ENE
5	35	E
6	2121	E
7	2134	E
8	2125	SE
9	57	SE
10	88	S
11	137	WSW
12	147	WSW
13	2128	W
14	105	W

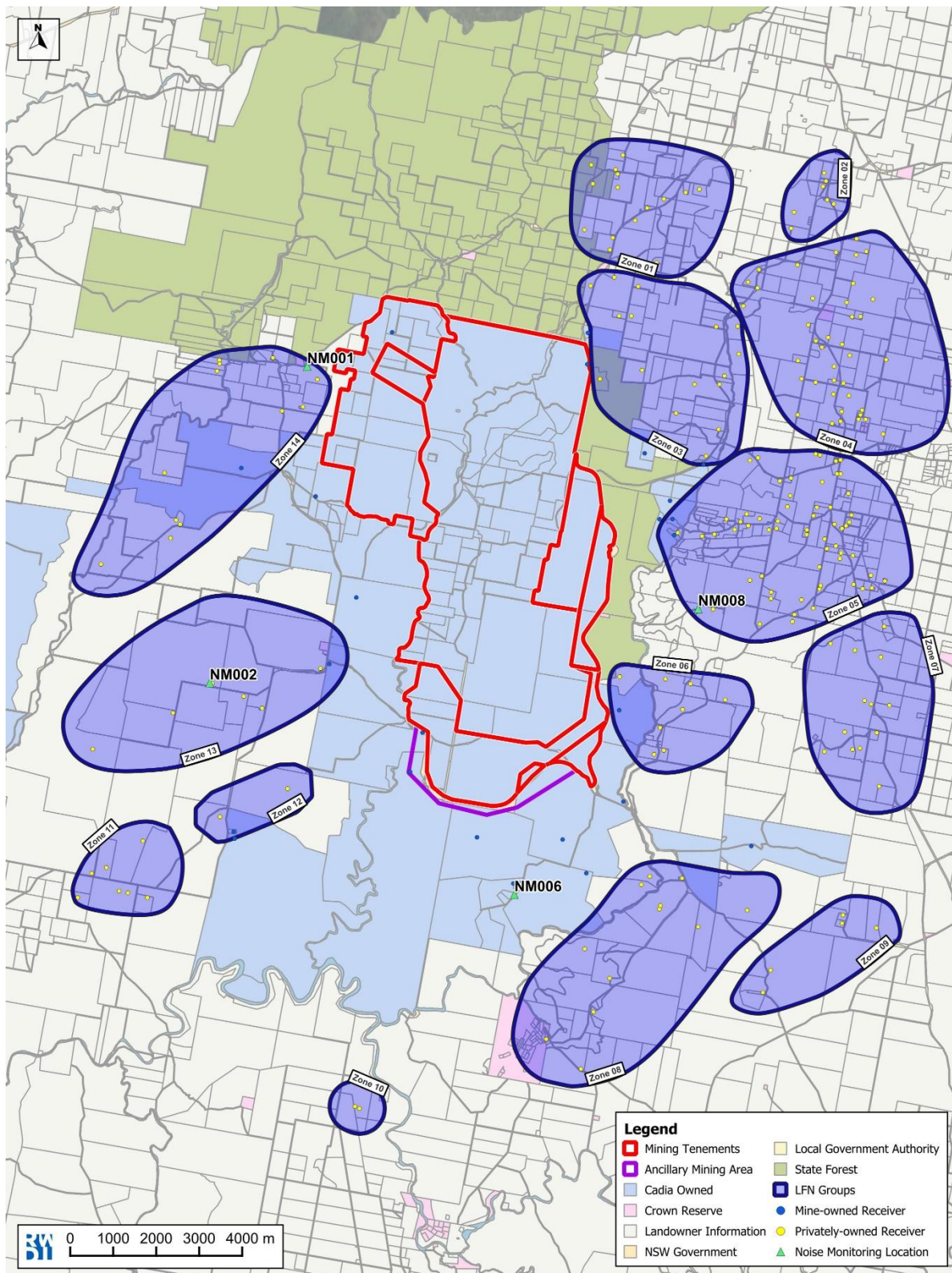


Figure C-1: LFN Zones and Representative Receivers



C.2 Low-Frequency Noise Levels

All operational noise predictions presented in the assessment are based on octave band levels ranging from 31.5 hertz (Hz) to 16 kilohertz (kHz). Predictions do not include one-third octave band levels in frequency bands ranging from 10 Hz to 160 Hz as required for assessing LFN in accordance with the *NPfl*. As such, noise predictions were extrapolated in the lower frequencies using a LFN spectrum shape representative of Cadia.

To establish reliable low-frequency spectrum shapes, data was processed from contemporary unattended noise surveys conducted in 2023 and 2024 at a number of locations around Cadia. The typical spectrum shapes presented in **Table C-2** correspond to an average of 82 LFN measurements in third octave bands ranging 10 Hz to 160 Hz.

Table C-2: Typical LFN Spectra for Existing Cadia Operations – Night-time

Survey Location	Third Octave Band Centre Frequency (Hz)												
	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160
NM001	92	79	74	72	61	60	58	54	57	54	51	49	45
NM002	84	73	69	67	59	56	53	48	51	44	41	39	38
NM006	81	67	61	61	48	44	45	34	34	35	29	26	25
NM008	91	80	77	74	67	63	61	57	54	60	51	47	47

The typical LFN spectrum shapes were allocated to the various zones as follows:

- NM001: Zone 14
- NM002: Zones 11-13
- NM006: Zones 8-10
- NM008: Zones 1-7

C.3 Assessment of Unbalanced Spectra and Audibility

Using broadband spectra (10 Hz to 20 kHz), a C minus A-weighted noise level assessment was carried out to determine the potential presence of unbalanced spectra exhibiting “dominant” levels in the low-frequency range at the representative receivers.

Table C-3 summarises the difference between the C and A-weighted noise levels for the night period. A difference of 15 decibels (dB) or more indicates an unbalanced spectrum.

Table C-3: C Minus A-Weighted Noise Levels – Night-time

LFN Zone	Representative Receiver	C minus A-Weighted $L_{Aeq,15min}$ Noise Level (dB)
1	280	27.0
2	39	27.9



LFN Zone	Representative Receiver	C minus A-Weighted $L_{Aeq,15min}$ Noise Level (dB)
3	25	33.7
4	2117	29.0
5	35	27.5
6	2121	27.2
7	2134	27.1
8	2125	39.6
9	57	38.2
10	88	36.9
11	137	26.7
12	147	27.2
13	2128	28.6
14	105	29.4

Results indicate that C minus A-weighted noise levels exceed 15 dB at all representative receivers. As expected, the more distant southern zones (e.g. Zones 8, 9 and 10) are subject to more unbalanced spectra than the closer zones to the north.

In accordance with the *NPfI*, the unbalanced spectra identified above were further considered and compared with the low-frequency audibility noise thresholds (**Table 5-5**).

LFN levels are presented in **Figure C-2**. Predictions are found to be below the low-frequency audibility noise thresholds at all representative receivers. Therefore, it is unlikely that the community surrounding Cadia would be impacted by LFN and no modifying factor correction is warranted for Modification 16.

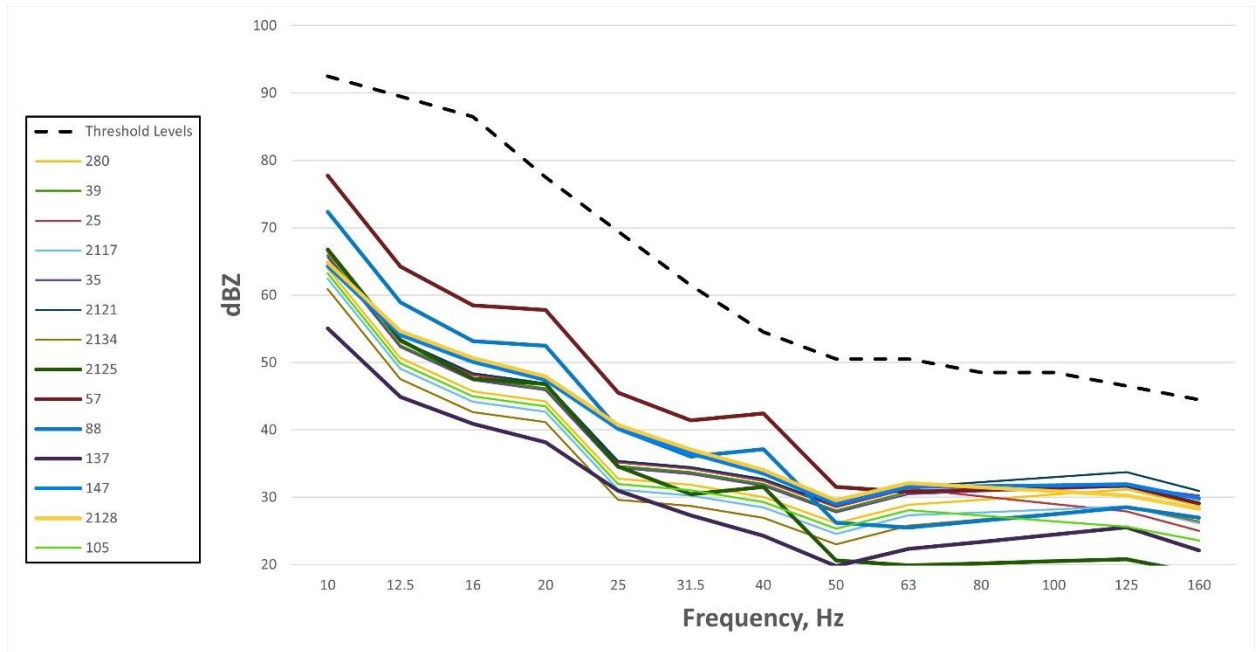


Figure C-2: Predicted One-Third Octave Band LFN Levels

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APPENDIX D

OPERATIONAL NOISE PREDICTIONS



Table D-1: Operational Noise Predictions - Privately-Owned Residential Receivers

Rec ID	L _{Aeq,15min} Operational Noise Predictions (dB[A])			Relative Increase from Modification 15 (dB)			PA 06_0295 Noise Criteria L _{Aeq,15min} (dB[A]) D/E/N
	Day	Evening	Night	Day	Evening	Night	
Privately-Owned Residential Receivers							
1	33	31	<20	-1.8	-1.6	2.9	40/35/35
1	30	29	27	-0.4	-0.3	0.0	40/35/35
2	29	27	22	-0.4	-0.4	0.0	40/35/35
4	25	24	<20	-0.9	-0.7	0.0	40/35/35
6	25	24	<20	-0.6	-0.5	0.0	40/35/35
7	<20	<20	<20	-1.0	-0.6	0.1	40/35/35
8	21	<20	<20	-2.2	-2.3	0.1	40/35/35
9	24	23	<20	-0.7	-0.5	0.0	40/35/35
13	21	20	<20	-1.4	-1.1	0.0	40/35/35
14	25	24	<20	-0.8	-0.6	-0.1	40/35/35
15	23	21	<20	-1.5	-1.4	0.1	40/35/35
20	24	22	<20	-2.0	-1.8	0.4	40/35/35
23	31	30	22	-2.3	-1.7	0.9	40/35/35
28	27	26	<20	-2.8	-2.3	0.2	40/35/35
30	36	35	24	-1.8	-1.3	0.8	40/36/35
31	33	33	24	-1.6	-1.2	0.3	40/35/35
31	31	31	23	-2.3	-1.6	0.3	40/35/35
32	35	34	24	-1.6	-1.0	0.4	40/35/35
33	31	29	25	-0.5	-0.4	0.0	40/35/35
34	33	32	23	-2.4	-1.8	0.5	40/35/35
34	34	33	26	-1.9	-1.1	0.3	40/35/35
38	35	33	23	-3.8	-3.8	4.3	40/36/35
39	26	24	<20	-1.1	-1.1	0.3	40/35/35
40	36	34	23	-2.3	-2.3	1.7	40/36/35
42	25	23	<20	-0.7	-0.6	0.1	40/35/35
44	35	33	21	-2.9	-2.4	1.5	40/35/35
50	<20	<20	<20	-3.7	-2.9	0.4	40/35/35
54	33	32	<20	-1.8	-1.6	-0.3	40/35/35
54	33	32	<20	-1.6	-1.3	-1.8	40/35/35
57	31	29	<20	-0.2	-0.1	-0.4	40/35/35

CADIA MODIFICATION 16

RWDI#2601020
16 December 2025



Rec ID	L _{Aeq,15min} Operational Noise Predictions (dB[A])			Relative Increase from Modification 15 (dB)			PA 06_0295 Noise Criteria L _{Aeq,15min} (dB[A]) D/E/N
	Day	Evening	Night	Day	Evening	Night	
Privately-Owned Residential Receivers							
59	26	24	21	-1.3	-1.0	0.1	40/35/35
60	33	33	<20	-1.1	-0.9	1.1	40/35/35
62	34	33	21	-0.7	-0.6	-2.0	40/35/35
65	<20	<20	<20	-0.2	-0.1	-0.7	40/35/35
67	24	23	21	-1.1	-0.7	0.1	40/35/35
72	23	23	21	-1.3	-0.7	0.0	40/35/35
76	23	23	21	-1.3	-0.7	0.1	40/35/35
82	<20	<20	<20	-3.8	-3.0	0.7	40/35/35
84	21	21	<20	-2.6	-1.5	0.1	40/35/35
90	22	21	<20	-3.1	-2.5	0.3	40/35/35
91	21	21	<20	-3.2	-2.3	0.2	40/35/35
92	<20	<20	<20	-3.2	-2.2	0.8	40/35/35
93	27	26	<20	-1.8	-1.2	0.4	40/35/35
94	25	24	<20	-1.9	-1.1	0.3	40/35/35
94	29	28	20	-2.0	-1.3	0.4	40/35/35
94	23	22	<20	-2.7	-1.9	0.2	40/35/35
94	27	26	<20	-1.8	-1.2	0.4	40/35/35
97	22	21	<20	-2.5	-1.6	0.6	40/35/35
98	23	23	<20	-2.6	-1.7	0.5	40/35/35
105	31	30	24	-1.3	-0.9	0.1	40/35/35
105	29	28	22	-0.9	-0.6	0.1	40/35/35
107	30	29	21	-0.9	-0.7	0.2	40/35/35
107	29	28	<20	-1.0	-0.8	0.5	40/35/35
107	29	28	<20	-1.0	-0.8	0.6	40/35/35
107	33	33	27	-0.6	-0.4	0.1	40/35/35
108	26	25	<20	-2.3	-1.3	0.5	40/35/35
108	26	25	<20	-2.2	-1.4	0.4	40/35/35
110	24	24	<20	-2.8	-1.7	0.8	40/35/35
116	30	29	21	-1.8	-1.2	0.1	40/35/35
117	31	30	20	-2.1	-1.5	0.6	40/35/35
118	31	30	<20	-2.1	-1.6	0.7	40/35/35
123	29	28	21	-1.8	-1.2	0.3	40/35/35

CADIA MODIFICATION 16

RWDI#2601020
16 December 2025



Rec ID	L _{Aeq,15min} Operational Noise Predictions (dB[A])			Relative Increase from Modification 15 (dB)			PA 06_0295 Noise Criteria L _{Aeq,15min} (dB[A]) D/E/N
	Day	Evening	Night	Day	Evening	Night	
Privately-Owned Residential Receivers							
123	29	28	<20	-1.9	-1.3	0.6	40/35/35
124	30	30	26	-0.9	-0.5	0.0	40/35/35
125	28	27	23	n/a ³	n/a ³	n/a ³	40/35/35
127	28	28	<20	-1.9	-1.4	0.6	40/35/35
131	30	29	22	-2.1	-1.6	0.5	40/35/35
133	38	37	32	0.3	0.1	0.1	40/37/35
135	35	34	27	0.0	0.0	0.2	40/35/35
137	32	31	27	-0.3	-0.2	0.1	40/35/35
138	40	38 ⁴	34	0.0	-0.1	0.0	42/38/35
140	31	30	21	-1.8	-1.2	0.6	40/35/35
141	30	29	21	-1.8	-1.2	0.4	40/35/35
147	36	35	30	0.4	0.1	0.0	40/35/35
150	30	29	24	0.1	0.1	0.0	40/35/35
150	31	30	24	-0.1	0.0	-0.1	40/35/35
150	31	30	26	0.1	0.1	-0.1	40/35/35
150	31	30	26	0.1	0.1	0.0	40/35/35
153	34	34	24	-1.5	-1.0	0.2	40/35/35
156	31	30	21	-2.2	-1.6	0.8	40/35/35
160	32	31	21	-2.0	-1.5	0.1	40/35/35
161	29	28	<20	-1.5	-0.9	0.3	40/35/35
165	30	29	20	-2.1	-1.4	0.2	40/35/35
166	31	30	22	-1.8	-1.2	0.4	40/35/35
173	29	29	20	-1.7	-1.1	0.6	40/35/35
178	33	31	21	n/a ³	n/a ³	n/a ³	40/35/35
182	28	27	<20	-1.9	-1.1	0.3	40/35/35
185	30	29	21	-2.0	-1.4	0.6	40/35/35
190	27	26	<20	-3.4	-2.4	1.8	40/35/35
190	27	26	<20	-3.1	-2.5	2.4	40/35/35
190	23	23	<20	-3.5	-2.0	0.8	40/35/35
193	32	31	25	-1.5	-1.0	0.1	40/35/35
195	34	33	26	-1.8	-1.5	0.4	40/35/35
196	35	34	27	-1.6	-1.2	0.3	40/35/35



Rec ID	L _{Aeq,15min} Operational Noise Predictions (dB[A])			Relative Increase from Modification 15 (dB)			PA 06_0295 Noise Criteria L _{Aeq,15min} (dB[A]) D/E/N
	Day	Evening	Night	Day	Evening	Night	
Privately-Owned Residential Receivers							
197	31	29	21	-2.3	-2.1	0.9	40/35/35
198	32	31	25	-1.5	-1.0	0.1	40/35/35
198	33	32	25	-2.0	-1.6	0.4	40/35/35
199	28	26	<20	-2.1	-1.8	0.3	40/35/35
199	27	27	<20	-2.0	-1.5	0.9	40/35/35
199	23	23	<20	-1.6	-0.7	0.1	40/35/35
202	32	31	22	-1.5	-1.1	0.5	40/35/35
203	29	28	<20	-1.6	-1.0	0.3	40/35/35
204	28	27	<20	-1.8	-1.0	0.3	40/35/35
205	33	32	21	-0.3	-0.2	-0.9	40/35/35
206	28	27	<20	-1.8	-1.0	0.3	40/35/35
207	24	23	<20	-2.1	-1.3	0.6	40/35/35
207	24	23	<20	-2.5	-1.6	0.6	40/35/35
208	37	33	24	-3.6	-4.1	3.7	40/37/35
257	26	24	<20	-1.1	-1.0	0.4	40/35/35
262	<20	<20	<20	-1.7	-1.6	0.1	40/35/35
280	31	30	27	-0.5	-0.3	0.0	40/35/35
281	27	26	<20	-2.6	-2.1	0.2	40/35/35
285	34	33	23	-1.8	-1.3	0.3	40/35/35
286	33	32	23	-1.7	-1.2	0.2	40/35/35
288	30	29	22	-2.0	-1.4	0.5	40/35/35
302	26	26	25	-0.3	-0.2	0.0	40/35/35
303	28	27	27	-0.2	-0.1	0.1	40/35/35
304	20	<20	<20	-0.4	-0.2	0.0	40/35/35
336	25	23	<20	-1.2	-1.0	0.3	40/35/35
338	25	23	<20	-1.1	-1.0	0.3	40/35/35
339	25	23	<20	-1.2	-1.0	0.3	40/35/35
358	25	24	21	-1.1	-0.8	0.1	40/35/35
373	23	23	22	-1.3	-0.8	0.1	40/35/35
374	<20	<20	<20	-4.3	-3.1	0.7	40/35/35
380	37	35	25	-2.2	-2.0	1.1	40/37/35
396	29	29	21	-1.7	-1.1	0.3	40/35/35



Rec ID	L _{Aeq,15min} Operational Noise Predictions (dB[A])			Relative Increase from Modification 15 (dB)			PA 06_0295 Noise Criteria L _{Aeq,15min} (dB[A]) D/E/N
	Day	Evening	Night	Day	Evening	Night	
Privately-Owned Residential Receivers							
397	26	24	<20	-3.0	-2.4	0.8	40/35/35
400	27	26	<20	-1.6	-1.0	0.4	40/35/35
403	27	26	<20	-1.6	-0.9	0.4	40/35/35
405	27	26	<20	-2.9	-2.0	1.4	40/35/35
416	23	23	<20	-3.0	-1.8	0.6	40/35/35
417	24	23	<20	-2.3	-1.4	0.7	40/35/35
423	28	26	<20	-2.5	-2.0	1.1	40/35/35
424	23	22	<20	-1.4	-0.8	0.1	40/35/35
2002	28	27	24	-0.2	-0.3	0.0	40/35/35
2002	22	21	<20	-0.7	-0.8	0.0	40/35/35
2002	<20	<20	<20	-0.4	-0.3	0.0	40/35/35
2010	27	25	20	-1.3	-1.1	0.2	40/35/35
2013	28	27	21	-1.6	-1.1	0.3	40/35/35
2014	29	29	26	-1.3	-0.8	0.0	40/35/35
2014	28	27	24	n/a ³	n/a ³	n/a ³	40/35/35
2014	27	27	23	n/a ³	n/a ³	n/a ³	40/35/35
2019	25	24	21	-1.1	-0.8	0.1	40/35/35
2024	31	31	22	-1.9	-1.3	0.7	40/35/35
2024	24	24	22	-0.3	-0.2	0.0	40/35/35
2024	32	31	28	-0.4	-0.2	0.1	40/35/35
2028	<20	<20	<20	-2.3	-1.2	0.2	40/35/35
2032	25	24	21	-1.0	-0.7	0.1	40/35/35
2034	<20	<20	<20	-2.3	-1.5	0.3	40/35/35
2035	<20	<20	<20	-3.8	-2.9	0.3	40/35/35
2036	21	21	<20	-3.6	-2.6	1.3	40/35/35
2036	22	21	<20	-3.0	-2.2	1.0	40/35/35
2039	32	31	24	-1.9	-1.4	0.1	40/35/35
2040	32	31	24	-2.0	-1.4	0.0	40/35/35
2041	29	28	<20	-0.7	-0.4	0.5	40/35/35
2042	29	28	20	-1.1	-0.6	0.1	40/35/35
2058	33	32	21	-0.5	-0.4	-1.4	40/35/35
2062	26	25	<20	-1.2	-1.0	-0.5	40/35/35



Rec ID	L _{Aeq,15min} Operational Noise Predictions (dB[A])			Relative Increase from Modification 15 (dB)			PA 06_0295 Noise Criteria L _{Aeq,15min} (dB[A]) D/E/N
	Day	Evening	Night	Day	Evening	Night	
Privately-Owned Residential Receivers							
2062	27	25	<20	-1.1	-1.0	-0.6	40/35/35
2063	<20	<20	<20	-3.4	-2.4	0.2	40/35/35
2064	26	25	21	-0.8	-0.7	0.0	40/35/35
2072	34	30	<20	-1.4	-1.6	-0.3	40/35/35
2072	36	32	<20	-1.9	-2.1	-0.1	40/35/35
2075	<20	<20	<20	-3.5	-2.4	0.3	40/35/35
2076	22	21	<20	-3.3	-2.3	1.2	40/35/35
2077	22	22	<20	-3.5	-2.3	1.4	40/35/35
2077	22	21	<20	-3.5	-2.5	1.2	40/35/35
2100	31	30	28	-0.4	-0.2	0.0	40/35/35
2101	25	24	<20	-1.4	-0.9	0.2	40/35/35
2102	29	27	20	-0.6	-0.5	0.1	40/35/35
2104	26	25	<20	-1.2	-0.8	0.2	40/35/35
2106	28	26	20	-0.8	-0.7	0.2	40/35/35
2106	27	26	<20	-0.9	-0.7	0.4	40/35/35
2112	25	24	<20	-2.8	-2.3	0.8	40/35/35
2112	22	20	<20	-1.5	-1.6	0.1	40/35/35
2113	26	26	21	-2.3	-1.7	0.3	40/35/35
2115	26	24	<20	-1.9	-1.7	0.5	40/35/35
2116	23	21	<20	-1.0	-0.8	0.1	40/35/35
2117	22	21	<20	-3.2	-2.5	0.9	40/35/35
2118	26	24	<20	-1.6	-1.6	0.6	40/35/35
2118	27	24	<20	-1.5	-1.4	0.5	40/35/35
2121	39	34	21	-1.3	-2.5	-0.5	42/37/35
2123	32	28	<20	-0.9	-1.3	-0.9	40/35/35
2124	34	32	<20	-2.1	-1.9	-1.2	40/35/35
2125	31	31	<20	-2.7	-2.1	2.2	40/35/35
2126	39	38	31	0.0	0.0	0.0	42/38/35
2127	42	41	35	-0.2	-0.1	0.1	43/41/35
2128	40	38	34	0.2	-0.1	0.1	42/38/35
2130	33	32	23	-0.8	-0.8	0.2	40/35/35
2131	28	27	23	-0.6	-0.3	0.1	40/35/35



Rec ID	L _{Aeq,15min} Operational Noise Predictions (dB[A])			Relative Increase from Modification 15 (dB)			PA 06_0295 Noise Criteria L _{Aeq,15min} (dB[A]) D/E/N
	Day	Evening	Night	Day	Evening	Night	
Privately-Owned Residential Receivers							
2132	31	30	26	0.1	0.0	0.0	40/35/35
2132	31	30	26	0.2	0.1	0.0	40/35/35
2135	32	31	<20	-0.9	-0.7	1.7	40/35/35
2136	34	32	<20	-0.7	-0.6	0.1	40/35/35
2141	29	28	20	-0.6	-0.3	0.4	40/35/35
2142	30	28	21	-0.3	-0.1	0.1	40/35/35
2147	27	26	<20	-3.0	-2.5	2.6	40/35/35
2148	29	27	<20	-2.9	-2.6	2.6	40/35/35
2149	32	30	21	-0.9	-0.7	0.1	40/35/35
2150	32	30	22	-0.9	-0.7	0.1	40/35/35
2152	29	27	<20	-1.8	-1.5	1.5	40/35/35
2155	29	27	<20	-1.2	-1.2	1.3	40/35/35
2156	30	28	<20	-0.3	-0.3	0.4	40/35/35
2160	36	35	25	-1.9	-1.3	0.7	40/35/35
2162	35	33	25	-1.9	-1.5	0.5	40/35/35
2163	38	36	28	-2.1	-1.9	0.6	41/38/35

Notes:

1. Day = 7.00 am to 6.00 pm (Monday to Saturday), and 8.00 am to 6.00 pm (Sundays and public holidays); Evening = 6.00 pm to 10.00 pm; Night = the remaining periods.
2. For receivers with the same property ID, refer to Appendix B for receiver location (same sequencing in all tables).
3. Receiver added for this assessment (Modification 15 Noise Impact Assessment did not include predictions for this receiver).
4. Evening noise level for receiver 138 incorporates pro-active noise mitigation measures (noting the evening noise level is predicted at 39 dB[A] without pro-active measures).

Table D-2: Operational Noise Predictions - Mine-Owned Residential Receivers

Rec ID	L _{Aeq,15min} Operational Noise Predictions (dB[A])			Relative Increase from Modification 15 (dB)			PA 06_0295 Noise Criteria L _{Aeq,15min} (dB[A]) D/E/N
	Day	Evening	Night	Day	Evening	Night	
Mine-Owned Residential Receivers							
104	42	43	25	-0.6	-0.3	-3.8	n/a ²
104	44	48	28	n/a ⁴	n/a ⁴	n/a ⁴	n/a ²
104	27	27	24	-0.4	-0.2	0.0	n/a ²
104	38	38	38	-0.2	-0.2	0.1	n/a ²



Rec ID	L _{Aeq,15min} Operational Noise Predictions (dB[A])			Relative Increase from Modification 15 (dB)			PA 06_0295 Noise Criteria L _{Aeq,15min} (dB[A]) D/E/N
	Day	Evening	Night	Day	Evening	Night	
Mine-Owned Residential Receivers							
104	31	31	29	-0.2	0.0	0.0	n/a ²
104	40	40	24	-0.5	-0.4	-4.9	n/a ²
104	48	47	41	0.3	0.0	0.1	n/a ²
104	25	23	<20	n/a ⁴	n/a ⁴	n/a ⁴	n/a ²
104	44	44	26	-0.4	-0.2	-5.9	n/a ²
104	36	35	29	0.4	0.3	0.0	n/a ²
104	36	35	30	0.4	0.3	-0.1	n/a ²
104	35	31	<20	-1.6	-1.9	-1.0	n/a ²
104	48	49	29	-0.2	-0.2	1.4	n/a ²
104	59	54	31	0.0	-0.2	5.5	n/a ²
104	40	39	29	-1.2	-0.7	0.2	n/a ²
104	36	35	28	-1.8	-1.2	0.4	n/a ²
125	43	43	25	-0.1	0.0	-4.0	n/a ²
125	33	32	23	-2.4	-2.0	1.6	n/a ²
125	40	40	34	-0.3	-0.1	0.0	n/a ²
125	33	32	23	-2.9	-2.4	0.9	n/a ²
125	41	41	38	-0.3	-0.3	0.0	n/a ²
125	33	32	29	-0.4	-0.5	0.1	n/a ²
125	23	21	<20	-0.7	-0.7	0.0	n/a ²
125	30	29	23	-1.5	-1.1	0.1	n/a ²
210	46	41	25	-1.5	-2.5	1.1	n/a ²

Notes:

1. Day = 7.00 am to 6.00 pm (Monday to Saturday), and 8.00 am to 6.00 pm (Sundays and public holidays); Evening = 6.00 pm to 10.00 pm; Night = the remaining periods.
2. Mine-owned residential receivers are not subject to noise impact assessment criteria and are included for information only.
3. For receivers with the same property ID, refer to Appendix B for receiver location (same sequencing in all tables).
4. Receiver added for this assessment (Modification 15 Noise Impact Assessment did not include predictions for this receiver).

The background features a large, light gray circular shape on the right side, partially overlapping a blue triangular shape on the left. A white curved line separates the two shapes.

APPENDIX E

NOISE CONTOURS – OPERATIONAL NOISE ASSESSMENT

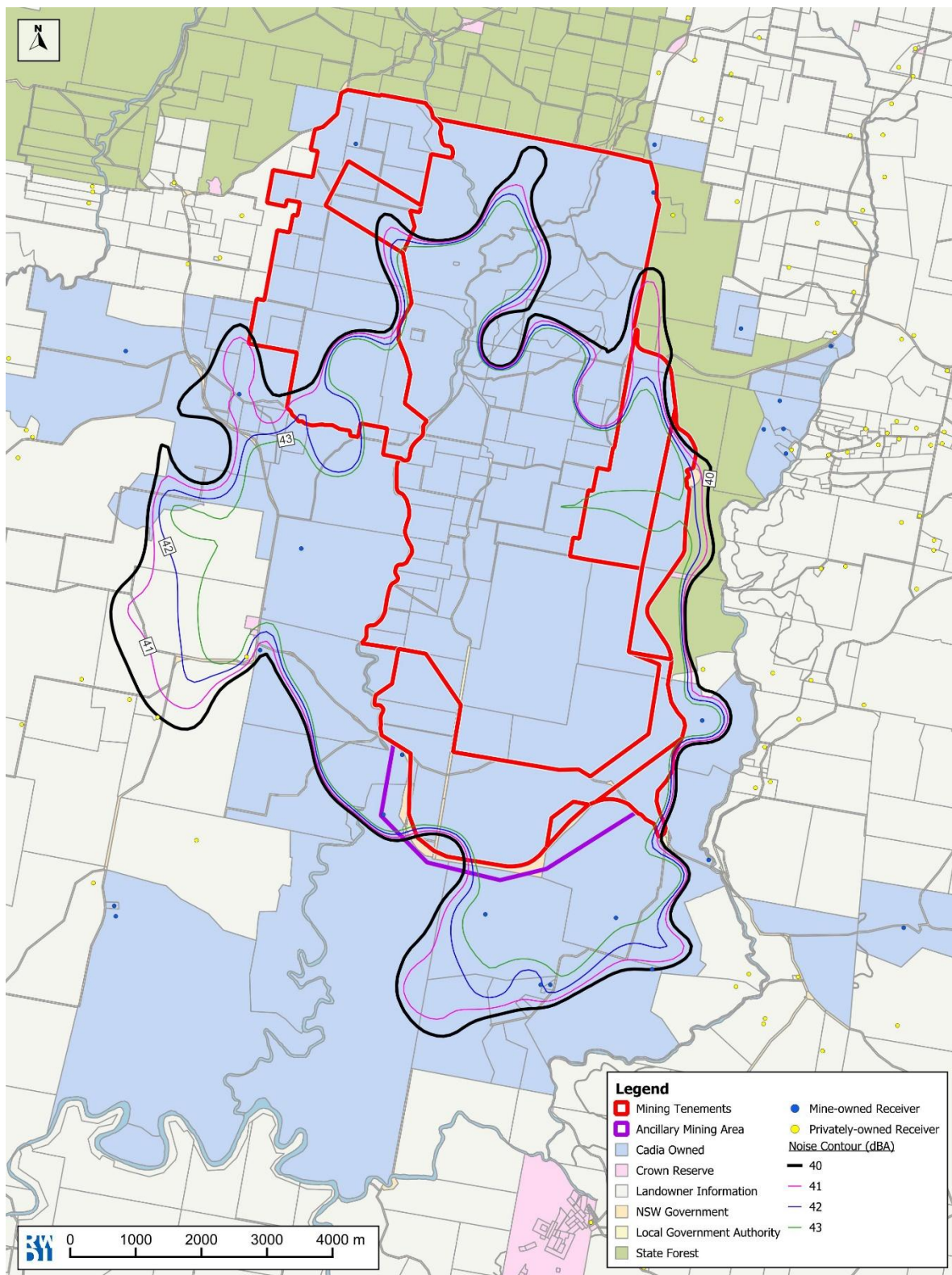


Figure E-1 Operational Noise Assessment - Noise Contours - Day

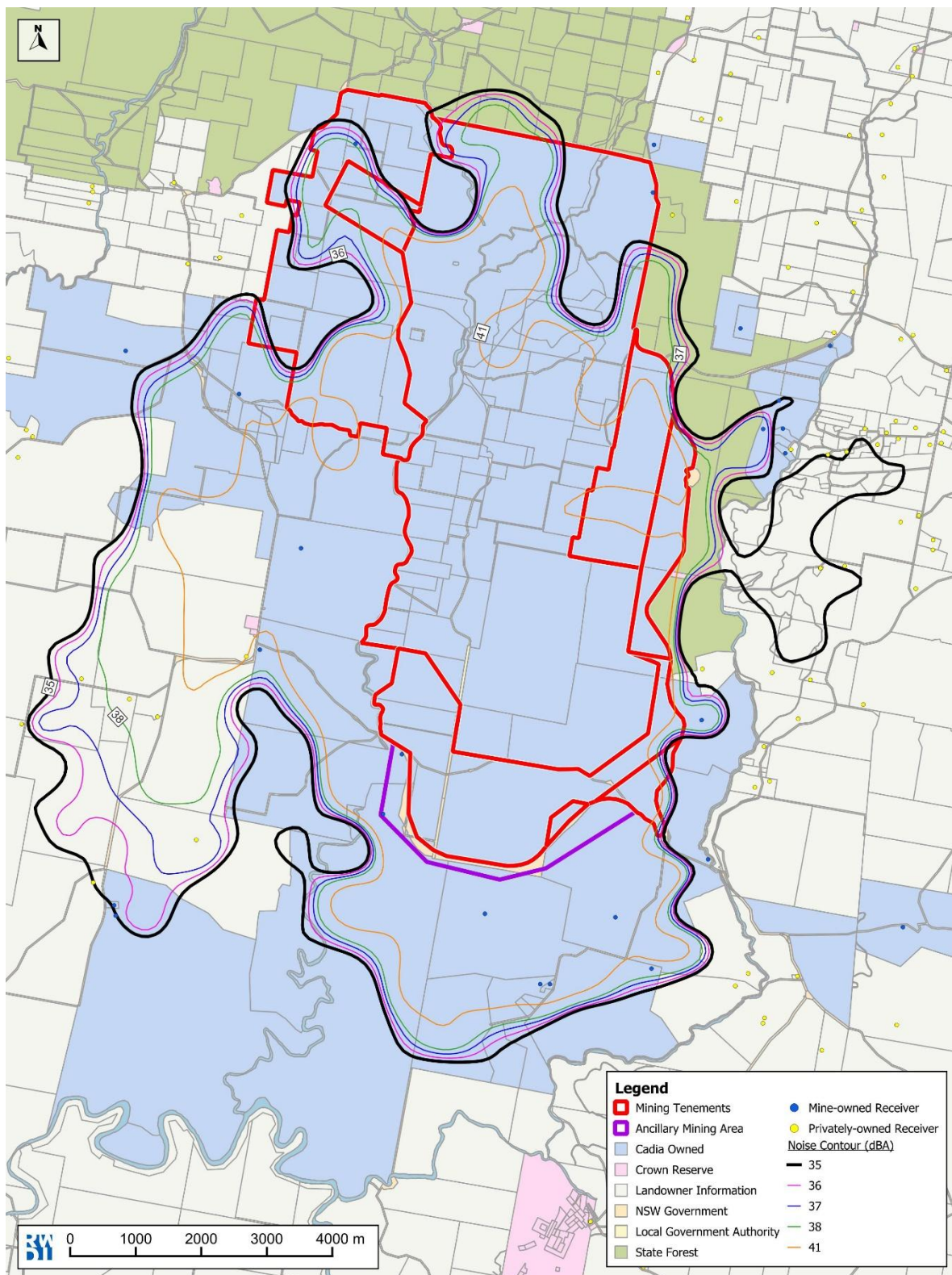


Figure E-2 Operational Noise Assessment - Noise Contours - Evening

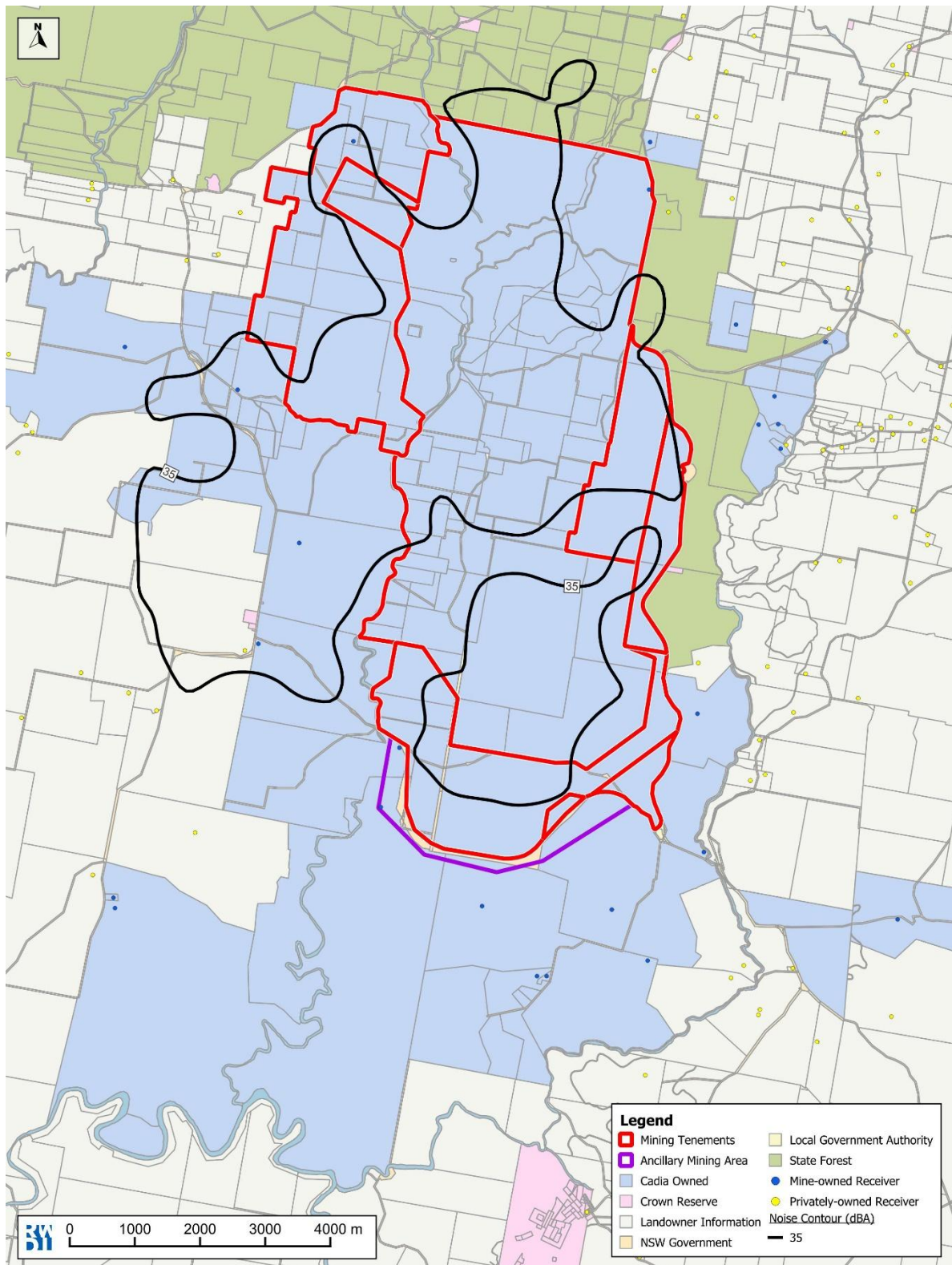


Figure E-3 Operational Noise Assessment - Noise Contours - Night-time

The background features a large, light gray circular shape on the right side, partially overlapping a blue triangular shape on the left. A white curved line separates the two shapes.

APPENDIX F

NOISE CONTOURS – LAND AREA NOISE ASSESSMENT

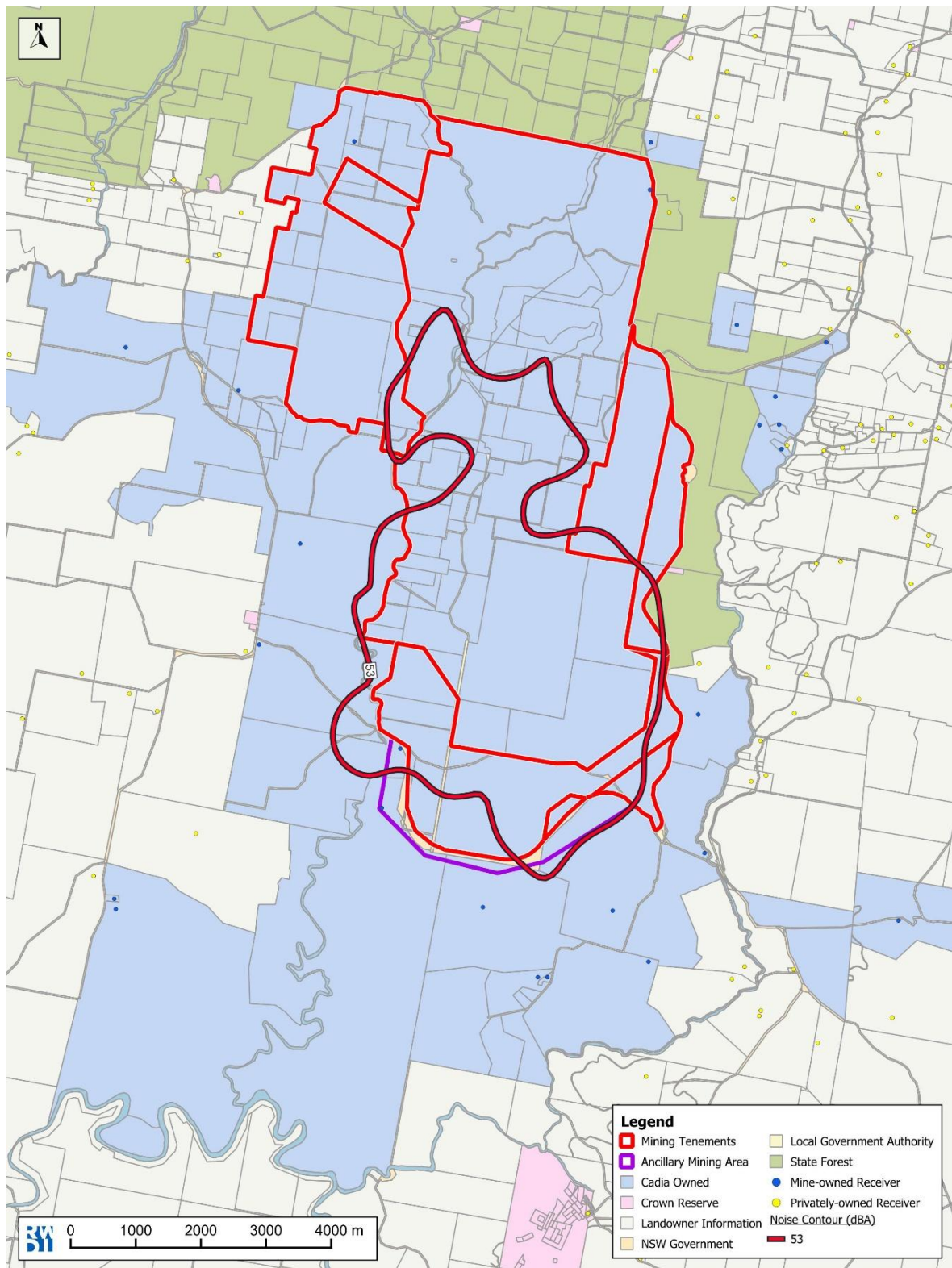


Figure F-1 Land Area Noise Assessment - Noise Contours - Day

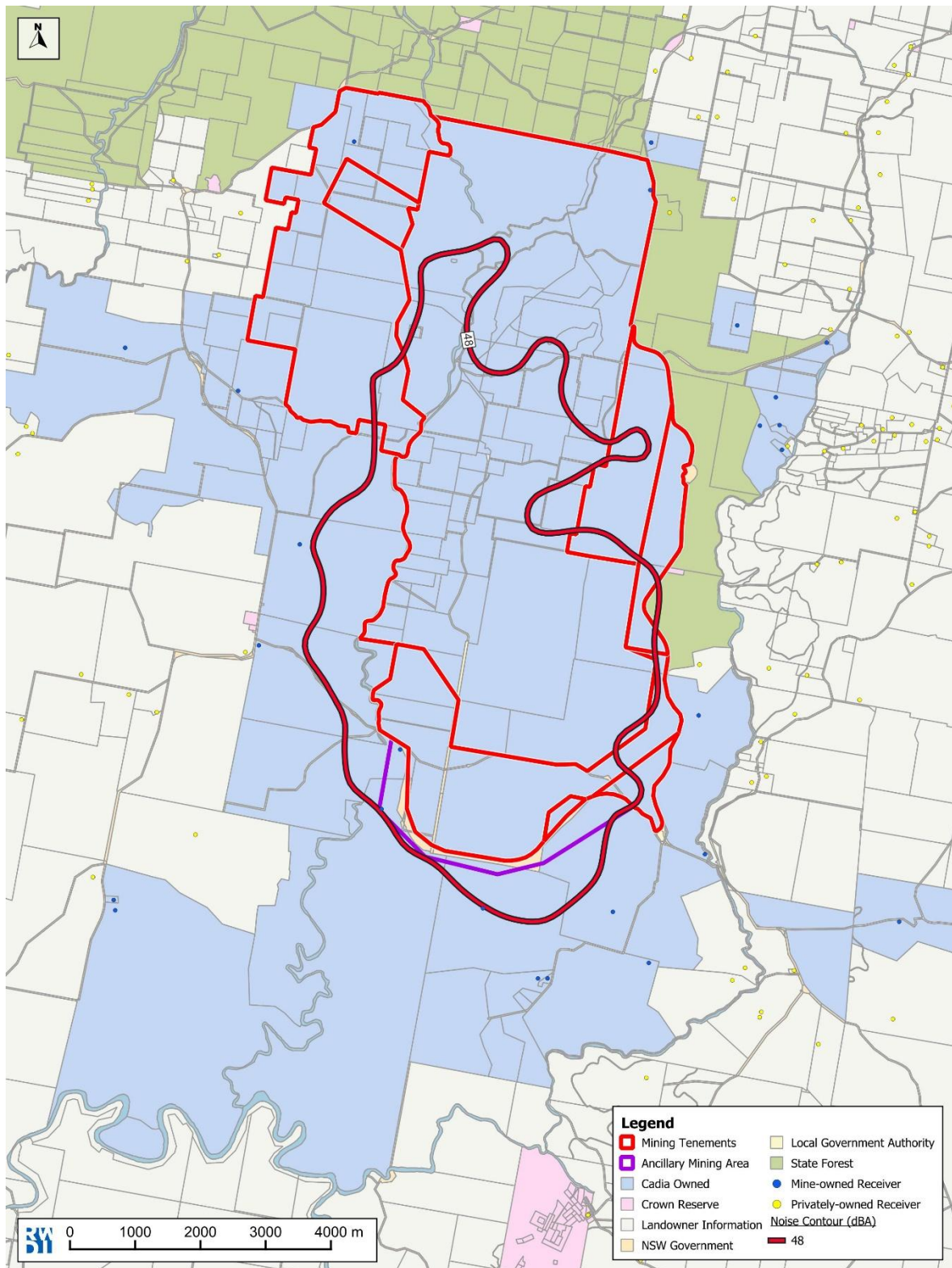


Figure F-2 Land Area Noise Assessment - Noise Contours - Evening

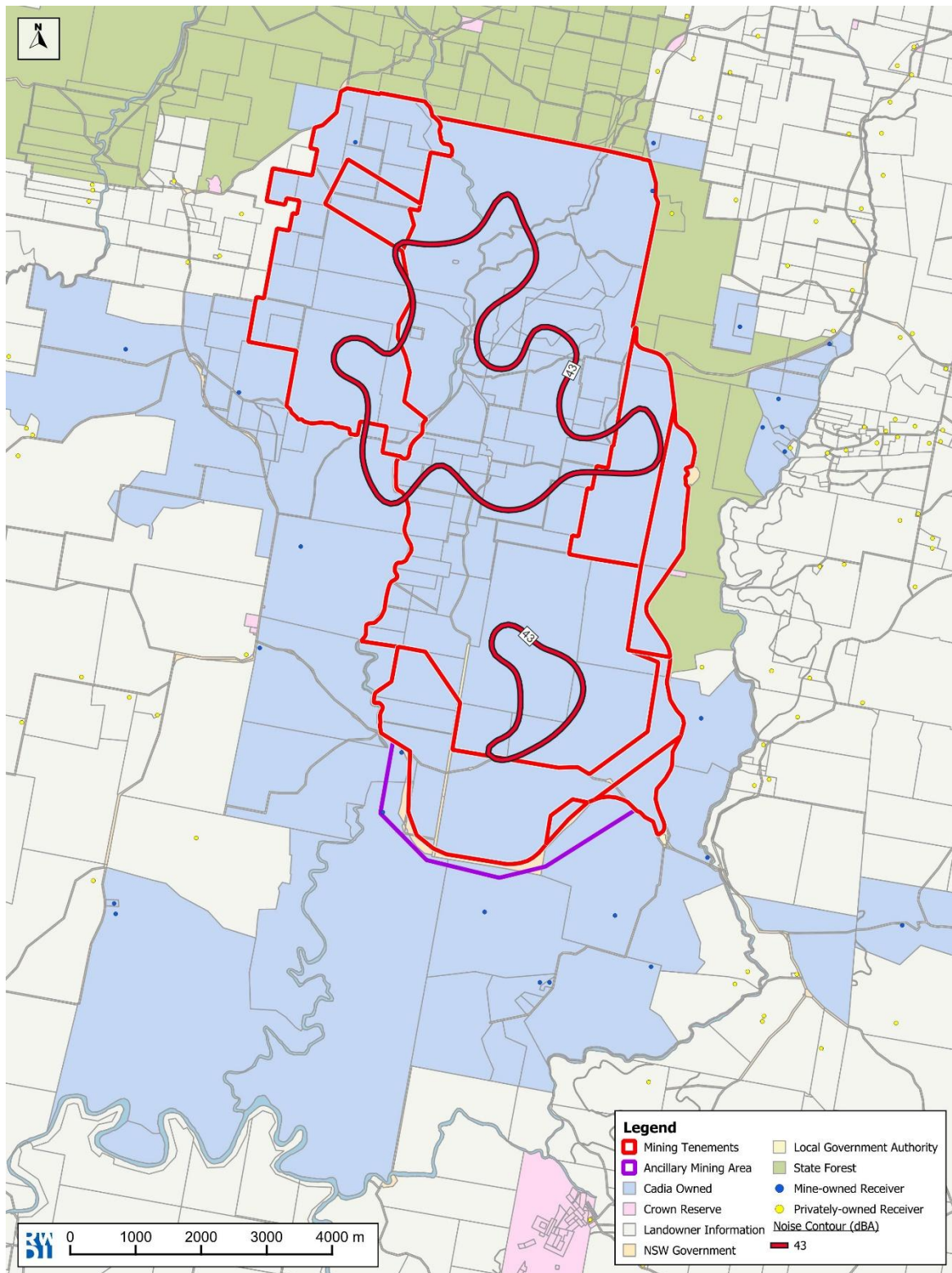


Figure F-3 Land Area Noise Assessment - Noise Contours - Night-time

The background features a large, light grey circular shape on the right side, partially overlapping a blue triangular shape on the left. A white curved line separates the two shapes.

APPENDIX G

MAXIMUM NIGHT-TIME NOISE LEVEL PREDICTIONS



Table G-1: Maximum Noise Predictions – Privately-Owned Residential Receivers

Rec ID	L _{A1,1min} Night-Time Noise Predictions (dB[A])	PA 06_0295 Maximum Noise Criteria L _{A1,1min} (dB[A])
Privately-Owned Residential Receivers		
1	22	45
1	28	45
2	25	45
4	20	45
6	21	45
7	<20	45
8	21	45
9	21	45
13	20	45
14	22	45
15	<20	45
20	22	45
23	29	45
28	27	45
30	36	45
31	33	45
31	29	45
32	32	45
33	27	45
34	32	45
34	33	45
38	27	45
39	24	45
40	27	45
42	<20	45
44	27	45
50	<20	45
54	25	45
54	25	45
57	24	45
59	26	45
60	21	45

CADIA MODIFICATION 16

RWDI#2601020
16 December 2025



Rec ID	$L_{A1,1min}$ Night-Time Noise Predictions (dB[A])	PA 06_0295 Maximum Noise Criteria $L_{A1,1min}$ (dB[A])
Privately-Owned Residential Receivers		
62	25	45
65	<20	45
67	23	45
72	24	45
76	24	45
82	<20	45
84	21	45
90	21	45
91	20	45
92	<20	45
93	22	45
94	24	45
94	27	45
94	21	45
94	28	45
97	20	45
98	22	45
105	26	45
105	24	45
107	24	45
107	21	45
107	<20	45
107	29	45
108	24	45
108	24	45
110	23	45
116	28	45
117	27	45
118	30	45
123	27	45
123	27	45
124	29	45
125	26	45

CADIA MODIFICATION 16

RWDI#2601020
16 December 2025



Rec ID	L _{A1,1min} Night-Time Noise Predictions (dB[A])	PA 06_0295 Maximum Noise Criteria L _{A1,1min} (dB[A])
Privately-Owned Residential Receivers		
127	27	45
131	30	45
133	34	45
135	29	45
137	28	45
138	35	45
140	29	45
141	28	45
147	32	45
150	26	45
150	26	45
150	27	45
150	27	45
153	33	45
156	30	45
160	32	45
161	26	45
165	28	45
166	29	45
173	28	45
178	28	45
182	22	45
185	29	45
190	<20	45
190	<20	45
190	<20	45
193	29	45
195	34	45
196	34	45
197	31	45
198	28	45
198	28	45
199	<20	45

CADIA MODIFICATION 16

RWDI#2601020
16 December 2025



Rec ID	L _{A1,1min} Night-Time Noise Predictions (dB[A])	PA 06_0295 Maximum Noise Criteria L _{A1,1min} (dB[A])
Privately-Owned Residential Receivers		
199	<20	45
199	<20	45
202	29	45
203	25	45
204	23	45
205	26	45
206	23	45
207	<20	45
207	<20	45
208	31	45
257	23	45
262	<20	45
280	29	45
281	27	45
285	33	45
286	33	45
288	30	45
302	27	45
303	29	45
304	<20	45
336	22	45
338	22	45
339	23	45
358	26	45
373	24	45
374	<20	45
380	38	45
396	27	45
397	22	45
400	24	45
403	24	45
405	<20	45
416	<20	45

CADIA MODIFICATION 16

RWDI#2601020
16 December 2025



Rec ID	L _{A1,1min} Night-Time Noise Predictions (dB[A])	PA 06_0295 Maximum Noise Criteria L _{A1,1min} (dB[A])
Privately-Owned Residential Receivers		
417	<20	45
423	22	45
424	<20	45
2002	25	45
2002	22	45
2002	<20	45
2010	25	45
2013	26	45
2014	30	45
2014	27	45
2014	26	45
2019	24	45
2024	30	45
2024	24	45
2024	31	45
2028	21	45
2032	24	45
2034	20	45
2035	<20	45
2036	21	45
2036	<20	45
2039	27	45
2040	27	45
2041	23	45
2042	24	45
2058	26	45
2062	<20	45
2062	<20	45
2063	<20	45
2064	23	45
2072	24	45
2072	26	45
2075	<20	45

CADIA MODIFICATION 16

RWDI#2601020
16 December 2025



Rec ID	L _{A1,1min} Night-Time Noise Predictions (dB[A])	PA 06_0295 Maximum Noise Criteria L _{A1,1min} (dB[A])
Privately-Owned Residential Receivers		
2076	<20	45
2077	21	45
2077	<20	45
2100	30	45
2101	<20	45
2102	23	45
2104	<20	45
2106	25	45
2106	24	45
2112	22	45
2112	20	45
2113	24	45
2115	25	45
2116	<20	45
2117	21	45
2118	25	45
2118	25	45
2121	29	45
2123	26	45
2124	24	45
2125	22	45
2126	33	45
2127	37	45
2128	35	45
2130	25	45
2131	25	45
2132	27	45
2132	27	45
2135	<20	45
2136	23	45
2141	23	45
2142	24	45
2147	<20	45



Rec ID	L _{A1,1min} Night-Time Noise Predictions (dB[A])	PA 06_0295 Maximum Noise Criteria L _{A1,1min} (dB[A])
Privately-Owned Residential Receivers		
2148	<20	45
2149	24	45
2150	24	45
2152	<20	45
2155	<20	45
2156	21	45
2160	37	45
2162	29	45
2163	39	45

Notes:

1. Night = 10.00 pm to 7.00 am (Monday to Saturday), and 10.00 pm to 8.00 am (Sundays and public holidays).
2. For receivers with the same property ID, refer to Appendix B for receiver location (same sequencing in all tables).

Table G-2: Maximum Noise Predictions – Mine-Owned Residential Receivers

Rec ID	L _{A1,1min} Night-Time Noise Predictions (dB[A])	PA 06_0295 Maximum Noise Criteria L _{A1,1min} (dB[A])
Mine-Owned Residential Receivers		
104	29	n/a ²
104	32	n/a ²
104	26	n/a ²
104	39	n/a ²
104	33	n/a ²
104	28	n/a ²
104	43	n/a ²
104	<20	n/a ²
104	28	n/a ²
104	31	n/a ²
104	31	n/a ²
104	22	n/a ²
104	30	n/a ²
104	32	n/a ²
104	36	n/a ²
104	34	n/a ²



Rec ID	$L_{A1,1min}$ Night-Time Noise Predictions (dB[A])	PA 06_0295 Maximum Noise Criteria $L_{A1,1min}$ (dB[A])
Mine-Owned Residential Receivers		
125	30	n/a ²
125	29	n/a ²
125	37	n/a ²
125	31	n/a ²
125	41	n/a ²
125	31	n/a ²
125	<20	n/a ²
125	27	n/a ²
210	33	n/a ⁴

Notes:

1. Night = 10.00 pm to 7.00 am (Monday to Saturday), and 10.00 pm to 8.00 am (Sundays and public holidays).
2. Mine-owned residential receivers are not subject to noise impact assessment criteria and are included for information only.
3. For receivers with the same property ID, refer to Appendix B for receiver location (same sequencing in all tables).