

Detailed Noise and Vibration Impact Statement 4

Warragamba Pipeline Works, Luddenham Roundabout Works and Full Viaduct Alignment – Cosgroves Creek to Patons Lane

Western Sydney Airport – Surface and Civil Alignment Works

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B	7 July 2023				Final – Update to First Revision
C	31 July 2023				Updated Table 16
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E	19 April 2024				Wording updates to Section 5.2 and Table 24. Corrections to noise prediction tables and appendices.
F	29 April 2024				Inclusion of mitigation measures table in Section 3. Corrections made to noise predictions in Table 21.

Distribution and Authorisation

Document Control

The CPBUI JV Project Director is responsible for ensuring this report is reviewed and approved. The Project Director is responsible for updating this plan to reflect changes to the project, legal and other requirements, as required.

The controlled master version will be maintained on TeamBinder. All circulated hard copies are deemed to be uncontrolled.

Amendments

The implementation of this report is under the authority of the CPBUI Delegated Authority Matrix. All Contract personnel will perform their duties in accordance with this report, supporting plans, and related procedures.

Revision Details

Rev.	Details
0	16 June 2023 – First Draft
A	27 June 2023 – First Revision
B	7 July 2023 – Final update to first revision
C	31 July 2023 – Updated Table 16
D	8 March 2024 – Updated sound power levels to align with Sydney Metro City & Southwest Construction Noise and Vibration Strategy (CNVS) and updated activities to reflect current equipment and locations.

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Abbreviations and definitions

Refer to Definitions, Abbreviations and Acronyms, Sydney Metro – Western Sydney Airport Surface Civil and Alignment Works Package, Schedule C1 General Specification.

Table 1 – Abbreviations and definitions

Abbreviation	Description
CEMF	Sydney Metro Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CNVS	Sydney Metro Construction Noise and Vibration Standard
Condition	Planning Minister's Conditions of Approval
CPB	CPB Contractors Pty Ltd
CPBUI JV	CPB Contractors Pty Limited and United Infrastructure Pty Limited Joint Venture
CSSI	Critical State Significant Infrastructure
CTMF	Construction Traffic Management Framework
CTMP	Construction Traffic Management Plan
dBA	A-weighted decibels is an expression of the relative loudness of sounds in the air as perceived by the human ear.
DNVIS	Detailed Noise and Vibration Impact Statement
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EM	Environmental Manager
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ER	Environmental Representative. Suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
Frequency	Frequency is synonymous to pitch. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
ICNG	Interim Construction Noise Guideline
Impulsive noise	Having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise.
Intermittent noise	The level suddenly drops to that of the background noise several times during the period of observation. The time during which the noise remains at levels different from that of the ambient is one second or more.
L _{max}	The maximum sound pressure level measured over a given period.
L _{min}	The minimum sound pressure level measured over a given period.
L ₁	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.

Abbreviation	Description
L ₁₀	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.
L ₉₀	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L ₉₀ noise level expressed in units of dB(A).
L _{eq}	The “equivalent noise level” is the summation of noise events and integrated over a selected period of time.
Minister	Minister of the NSW Department for Planning and Public Spaces
NCA	Noise Catchment Area
NML	Noise Management Level
NPI	NSW EPA’s <i>Noise Policy for Industry</i>
Non-compliance	Failure to comply with the requirements of the Infrastructure Approval or any applicable licence, permit or legal requirements.
Non-conformance	Failure to conform to the requirements of Project system documentation including this CEMP or supporting documentation.
OOH	Out-of-Hours, i.e. outside of standard construction hours
POEO Act	<i>Protection of the Environment Operations Act 1997</i> (NSW)
Principal, the	Sydney Metro
Project, the	Sydney Metro Western Sydney Airport - SCAW
Reflection	Sound wave changed in direction of propagation due to a solid object obscuring its path.
REMM	Revised Environmental Mitigation Measure
ROL	Road Occupancy Licence
SCAW	Western Sydney Airport Surface and Civil Alignment Works
SEL	Sound Exposure Level (SEL) is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain L _{eq} sound levels over any period of time and can be used for predicting noise at various locations.
Sound	A fluctuation of air pressure which is propagated as a wave through air.
Sound absorption	The ability of a material to absorb sound energy through its conversion into thermal energy.
Sound level meter	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound pressure level	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone.
Sound power level	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power.
SSI	State Significant Infrastructure
Tonal noise	Containing a prominent frequency and characterised by a definite pitch.
UI	United Infrastructure Pty Limited

Part A Overview

1. Introduction

1.1 Background

The Sydney Metro Western Sydney Airport will become the transport spine for Greater Western Sydney, connecting communities and travellers with the new Western Sydney International (Nancy-Bird Walton) Airport (referred to as Western Sydney International) and the growing region.

The Sydney Metro Western Sydney Airport EIS was prepared in October 2020 to assess the impacts of construction and operation of the Project and was placed on public exhibition between 21 October 2020 and 2 December 2020. The Project was declared a Critical State Significant Infrastructure (CSSI) Project and is listed in Schedule 5 of *State Environmental Planning Policy (State and Regional Development)*.

The Sydney Metro Western Sydney Airport was approved by the Minister for Planning and Public Spaces on 23 July 2021 (SSI 10051) under section 5.19 of the *NSW Environmental Planning and Assessment Act 1997* (EP&A Act).

1.2 Project description

The Project will be undertaken on Darug Country and will form part of the future Western Parkland City. The Project involves the construction and operation of a new 23 km metro rail line that extends from the existing Sydney Trains suburban T1 western line (at St Marys) in the north to the Aerotropolis (at Bringelly) in the south. The alignment includes a combination of tunnels and civil structures, including viaducts, bridges, and surface and open-cut troughs between the two tunnel sections. The Project also includes six new metro stations, and a stabling and maintenance facility and operational control centre at Orchard Hills. The SCAW package is the second major contract package to be procured for the Project. The successful and timely completion of the SCAW package is critical to the subsequent construction activities and ultimate completion of the entire Project.

1.2.1 SCAW scope of works

The scope for the SCAW package includes approximately 10.6 km of alignment up to the underside of track formation from Orchard Hills to the Western Sydney International (WSI) airport. This includes approximately:

- 3.6 km of viaduct
 - 400 m of viaduct over Blaxland Creek
 - 660 m of viaduct over the Patons Lane area and un-named creek
 - 2.5 km of viaduct in the Luddenham Road area including across the Warragamba pipeline, at Luddenham Station, across Luddenham Road and across Cosgrove Creek
- 205 metres of bridges
 - An over rail bridge, approximately 180 m long, over the proposed M12 Motorway
 - An over rail bridge, approximately 25 m long, over the drainage swale on the WSI airport site
- 6.9 km of at-grade alignment
 - 600 m at Orchard Hills, south of Lansdowne Road
 - 1.6 km alongside the stabling maintenance facility in Orchard Hills
 - 900 m to the north of the Warragamba pipelines
 - 1.1 km north of the proposed M12 motorway
 - 1.4 km south of the proposed M12 Motorway on Elizabeth Drive
 - 1.3 km within the Airport site from the northern boundary to the Airport Business Park Station
- Temporary and permanent access roads.

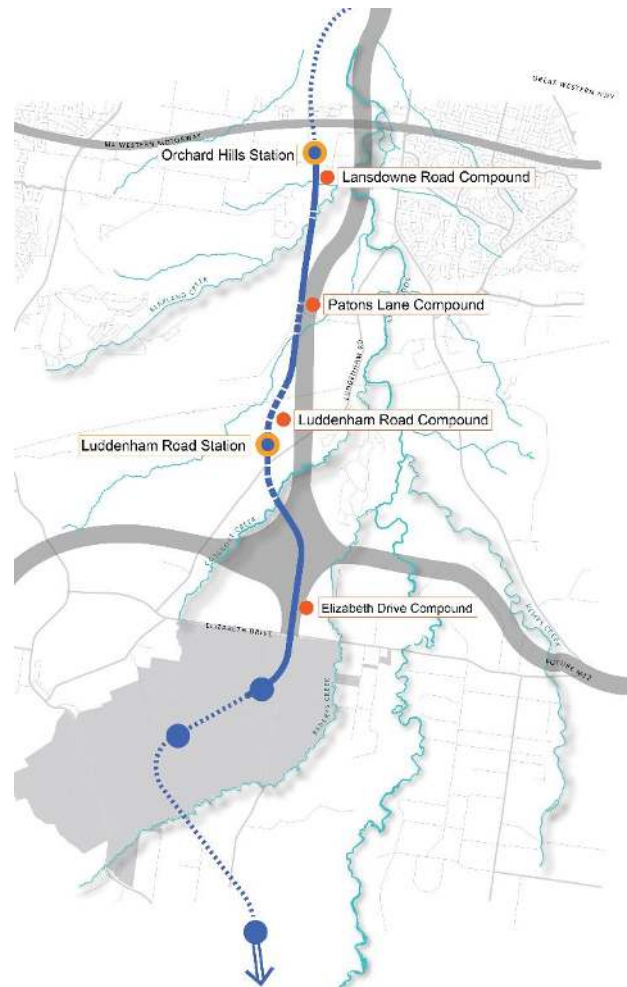


Figure 1 – SCAW Project scope

1.2.2 SCAW construction methodology

Activities that will be undertaken during construction are summarised in Table 2.

Table 2 – Activities during construction

Works	Activities
Earth works	<ul style="list-style-type: none"> ▪ Installation of environmental controls ▪ Vegetation clearing ▪ Stripping, stockpiling and management of topsoil and unsuitable material ▪ Embankment and cutting construction, including the improvement layers/treatments, general fill, structural fill zone and capping layers ▪ Importation and reuse of fill materials ▪ Placing, compacting and finishing of rail alignment sub-base and base layers ▪ Dewatering and backfilling farm dams ▪ Preparation of piling pads.
Bridge works	<ul style="list-style-type: none"> ▪ 400 metres of viaduct over Blaxland Creek ▪ 660 metres of viaduct over the Patons Lane area and unnamed creek ▪ 2.5 kilometres of viaduct in the Luddenham Road area including across the Warragamba Pipeline, at Luddenham Station, across Luddenham Road and across Cosgrove Creek ▪ 205 metres of bridges
Drainage works	<ul style="list-style-type: none"> ▪ Construction of table drains ▪ Installation of culverts and other drainage structures ▪ Construction of temporary diversion channels ▪ Construction of temporary watercourse crossings such as causeways ▪ Installation of scour protection measures.

1.3 Detailed noise and vibration impact statement

This Detailed Noise and Vibration Impact Assessment (DNVIS) has been prepared in line with the Project's Condition of Approval (CoA) E47 (reproduced below) and supplements the Construction Noise and Vibration Management Sub-plan (CNVMSP). The DNVIS establishes the location, nature and scale of proposed works and assesses the level of impact on the community's amenity. Additionally, mitigation measures are identified and evaluated.

In accordance with Condition E47, this DNVIS has been prepared for works that may exceed the NMLs, vibration criteria and / or ground-borne noise levels specified in Conditions E43 and E44 at any residence outside construction hours identified in Condition E38, or where receivers will be highly noise affected or subject to vibration levels above those otherwise determined as appropriate by a suitably qualified structural engineer under Condition E87.

CoA E47:

Detailed Noise and Vibration Impact Statements (DNVIS) must be prepared for any work that may exceed the NMLs, vibration criteria and / or ground-borne noise levels specified in Conditions E43 and E44 at any residence outside construction hours identified in Condition E38, or where receivers will be highly noise affected or subject to vibration levels above those otherwise determined as appropriate by a suitably qualified structural engineer under Condition E87. The DNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the works. A copy of the DNVIS must be provided to the ER before the commencement of the associated works. The Planning Secretary and the EPA may request a copy(ies) of the DNVIS.

This DNVIS follows the following structure:

- Section 2 – Construction Works and Hours
- Section 3 – Existing Environment and Sensitive Receivers
- Section 4 – Construction Noise and Vibration Management Levels
- Section 5 – Construction Noise and Vibration Assessment
- Section 6 – Mitigation and Management

2. Construction works and hours

2.1 Planned works

This DNVIS provides an assessment of potential noise and vibration impacts from activities associated with the early works. The area of works is shown in Appendix A – Site layout and works areas. The works include:

- Warragamba Pipeline Works – Earthworks and Structures
- Luddenham Road Roundabout service installation and works
- Full Viaduct Alignment – Earthworks and Structures - M12 Bridge to Patons Lane

A detailed list of activities and equipment is provided in Section 5.1. Works are expected to commence from June/July 2023 however may be required to be carried out up until 31 January 2025.

2.2 Approved construction hours

The approved construction hours for SCAW are in accordance with Condition E38 and E39, the CNVS and the EPL and are summarised in Table 3.

Refer to Section 1 for detail on the works permitted to be undertaken outside of approved construction hours (out of hours work (OOHW)).

Table 3 – Approved construction hours

Source	Activity	Approved construction hours		
		Monday to Friday	Saturday	Sunday / public holiday
Condition E38	Standard construction hours	7:00am to 6:00pm	8:00am to 1:00pm	At no time
Condition E39	Except as permitted by an EPL or approved in accordance with the Out-of-Hours Works Protocol required by Condition E42, highly noise intensive work that result in an exceedance of the applicable NML at the same receiver must only be undertaken during the following times:	8:00am to 6:00pm	8:00am to 1:00pm	At no time
		If continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one (1) hour. <i>'continuously' includes any period during which there is less than one (1) hour between ceasing and recommencing any of the work</i>		
SCAW EPL Conditions	L5.1 Standard construction hours	Unless permitted by another condition of this licence, works and activities must: a) only be undertaken between the hours of 7:00 am and 6:00 pm Monday to Friday; b) only be undertaken between the hours of 8:00 am and 1:00 pm Saturday; and c) not be undertaken on Sundays or Public Holidays.		

Source	Activity	Approved construction hours		
		Monday to Friday	Saturday	Sunday / public holiday
	L5.2 High Noise Impact Activities and Work	<p>the applicable Noise Management Level (NML) at a Noise Sensitive Receiver must only be undertaken:</p> <p>a) between 8:00 am and 6:00 pm Monday to Friday;</p> <p>b) between 8:00 am and 1:00 pm Saturday; and</p> <p>c) if high noise impact works are to be conducted continuously and the location of the works means that it is likely to impact the same receivers, then the works must be conducted in continuous blocks of no more than 3 hours, with at least a 1-hour respite between each block of continuous high noise impact work; except as expressly permitted by another condition of this licence.</p> <p>Note: For the purposes of this condition 'continuous' includes any period where there is a less than 1-hour respite between ceasing and recommencing of any work that is subject to this condition.</p>		
	L5.3 Exemptions to standard construction hours for low noise impact works	<p>Works and activities may be carried on outside of standard construction hours specified in condition L5.1 if the works and activities do not cause, when assessed at the boundary of the most affected Noise Sensitive Receiver:</p> <p>a) $L_{Aeq}(15 \text{ minute})$ noise levels greater than 5dB above the day, evening and night Rating Background Level (RBL) as applicable;</p> <p>b) L_{Amax} noise levels greater than 15dB above the night RBL for night works;</p> <p>c) the preferred continuous or impulsive vibration values greater than those for human exposure to vibration, set out for residences in Table 2.2 in Assessing Vibration: a technical guideline (DEC, 2006); and</p> <p>d) the preferred intermittent vibration values greater than those for human exposure to vibration, set out for residences in Table 2.4 in Assessing Vibration: a technical guideline (DEC, 2006).</p> <p>For the purposes of this condition, the RBLs are those contained in an environmental assessment for the activities subject to this licence prepared under the Environmental Planning and Assessment Act 1979. Alternatively, the licensee may use another RBL determined in accordance with the Noise Policy for Industry (EPA, 2017) and provided to the EPA prior to carrying out any works or activities under this condition.</p> <p>The notification requirements under condition L5.5 do not apply to this condition.</p>		

Source	Activity	Approved construction hours		
		Monday to Friday	Saturday	Sunday / public holiday
	L5.4 Exemptions to standard construction hours in exceptional circumstances	<p>a) The licensee may undertake works and activities outside of standard construction hours specified in condition L5.1 for:</p> <ul style="list-style-type: none"> i. emergency works required to avoid the loss of life or property, or to prevent material harm to the environment; and ii. the delivery of oversized plant, structures or materials determined by the police or other authorised authorities to require special arrangements to transport along public roads. <p>b) The licensee must, on becoming aware of the need to undertake emergency works under this condition notify the EPA's Environment Line as soon as practicable and submit a report to the EPA by 4:00 pm on the next business day after the emergency works commenced that describes:</p> <ul style="list-style-type: none"> i. the cause, time and duration of the emergency; ii. action taken by or on behalf of the licensee in relation to the emergency; and iii. details of any measures taken or proposed to be taken by the licensee to prevent or mitigate against a recurrence of the emergency. <p>For the purposes of this condition, 'material harm to the environment' has the same meaning as in section 147 of the POEO Act.</p> <p>Emergency works do not require a notification under condition L5.5</p>		
	L5.7 Works outside of standard construction hours	<p>Under this condition, works and activities may be undertaken outside of standard construction hours specified in condition L5.1 and L5.2, but only if they are required in relation to one or more of the following:</p> <ul style="list-style-type: none"> a) carrying on those works and activities during standard construction hours would result in a high risk to construction personnel or public safety, based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2018 "Risk Management"; b) the Relevant Road Network Operator has advised the licensee in writing that carrying out the works and activities during standard construction hours would result in a high risk to road network operational performance; 		

Source	Activity	Approved construction hours		
		Monday to Friday	Saturday	Sunday / public holiday
		<p>c) a relevant utility service operator has advised the licensee in writing that carrying out the works and activities during standard construction hours would result in a high risk to the operation and integrity of the utility network;</p> <p>d) the TfNSW Transport Management Centre (or other road authority) have refused to issue a road occupancy licence during standard construction hours; or</p> <p>e) Sydney Trains (or other rail authority) requires a rail possession for the activities to be performed outside of standard construction hours.</p>		
	L5.8 Works outside of standard construction hours - Regulatory Requirements	<p>In undertaking any works and activities outside of standard construction hours under condition L5.7, the licensee must comply with the following:</p> <p>a) Prepare a construction noise and vibration impact assessment in accordance with the Interim Construction Noise Guideline (DEC, 2009) that is to include:</p> <ul style="list-style-type: none"> i. a description of the proposed works and activities outside of standard construction hours; ii. predictions of LAeq (15 minute) dB noise levels at noise sensitive receivers from these works and iii. activities, where noise levels are predicted to be greater than those permitted under condition L5.3; and iv. a monitoring plan to validate the noise predictions, based on monitoring at the boundary of representative sensitive receivers during noise generating activities that are representative of the works and activities, including during the period/s predicted to have the highest noise level impacts. <p>b) Undertake noise monitoring in accordance with the monitoring plan required by condition L5.8(a)(iii).</p> <p>c) Only undertake activities between the hours of 6:00pm on Mondays, Tuesdays, Wednesdays, Thursdays, Fridays and 7:00am the following day (unless permitted by another condition of this licence).</p> <p>d) Activities are not to be undertaken between the hours of 6:00pm on Saturdays, Sundays or Public Holidays and 7:00am the following day (unless permitted by another condition of this licence).</p> <p>e) Ensure that works and activities do not result in noise levels exceeding those specified in condition L5.3 at the same noise sensitive receivers (unless specified in another condition of this licence) on more than:</p>		

Source	Activity	Approved construction hours		
		Monday to Friday	Saturday	Sunday / public holiday
		<ul style="list-style-type: none"> i. 2 consecutive evenings and/or nights at any time; and ii. 3 evenings and/or nights per week; and iii. 10 evenings and/or nights per month. <p>f) Undertake any high noise impact works before 12:00 am (midnight) where reasonable and feasible.</p> <p>g) Where high noise impact activities are undertaken, the respite provisions as per the requirements of condition L5.2(c) do not apply provided that all High Noise Impact Activities and Works are undertaken prior to 12:00 am (midnight).</p> <p>h) Where high noise impact activities are undertaken after 12:00 am (midnight), the respite provisions in condition L5.2(c) apply.</p>		
	E1.1 Work outside standard construction hours - community consultation and agreement.	<p>The licensee may work outside standard construction hours (as defined in L5.1) in circumstances other than those permitted under conditions L5.3, L5.4, or any other condition of this licence if the Licensee:</p> <ul style="list-style-type: none"> a) undertakes community consultation and agreement as described in E1.2; b) submits to the EPA a written request to work outside the standard construction hours attaching information set out in E1.3; and c) obtains approval by the EPA to work outside standard construction hours. The EPA may, in exercising its discretion to approve the works outside standard construction hours, review whether the licensee has obtained community agreement. Specifically, whether a substantial majority of the individual Noise Sensitive Receivers who together comprise the Community Affected Catchments and were contacted has consented to the planned works out of standard hours. 		

2.3 Working outside of standard construction hours

This DNVIS has been written to inform the implementation of the CPBUI Noise and Vibration Management Plan and Monitoring Program for works associated with Sydney Metro Western Sydney Airport.

The modelling for activities detailed in this DNVIS for Day, Evening and Night time periods as per the ICNG will be used to inform the community consultation process detailed in the CPBUI Community and Stakeholder Engagement Strategy to enable Out of Hours Construction Activities to be undertaken in accordance with the Project EPL.

EPL conditions pertaining to Out of Hours approvals are provided in Table 3.

3. Existing environment

3.1 Noise catchment areas

Noise Catchment Areas (NCAs) are groups of receivers that are likely to experience similar impacts from the project and are reflective of the land use of each area. The NCAs are based on the EIS and predicted impacts for each NCA are considered to represent typical noise and vibration impacts at each individual receiver within that NCA. Table 4 describes the location of the NCAs adopted for the Project, applicable to the SCAW scope and are presented in Figure 2.

Table 4 – Noise catchment areas (NCA)

NCA	Description
NCA08	Predominantly low density single storey residential dwellings. East of the project is mostly open land with scattered receivers along Samuel Marsden Road and Lansdowne Road. Ambient noise conditions are dominated by traffic along the M4 Western Motorway.
NCA09/09A	Open farmland and a grouping of low density single storey residential dwellings within 1200 metres east of the project along Luddenham Road.
NCA10/10A	Open farmland with low density single storey and multi-storey residential dwellings within the Twin Creeks area east of the project, and scattered residential dwellings along Luddenham Road.

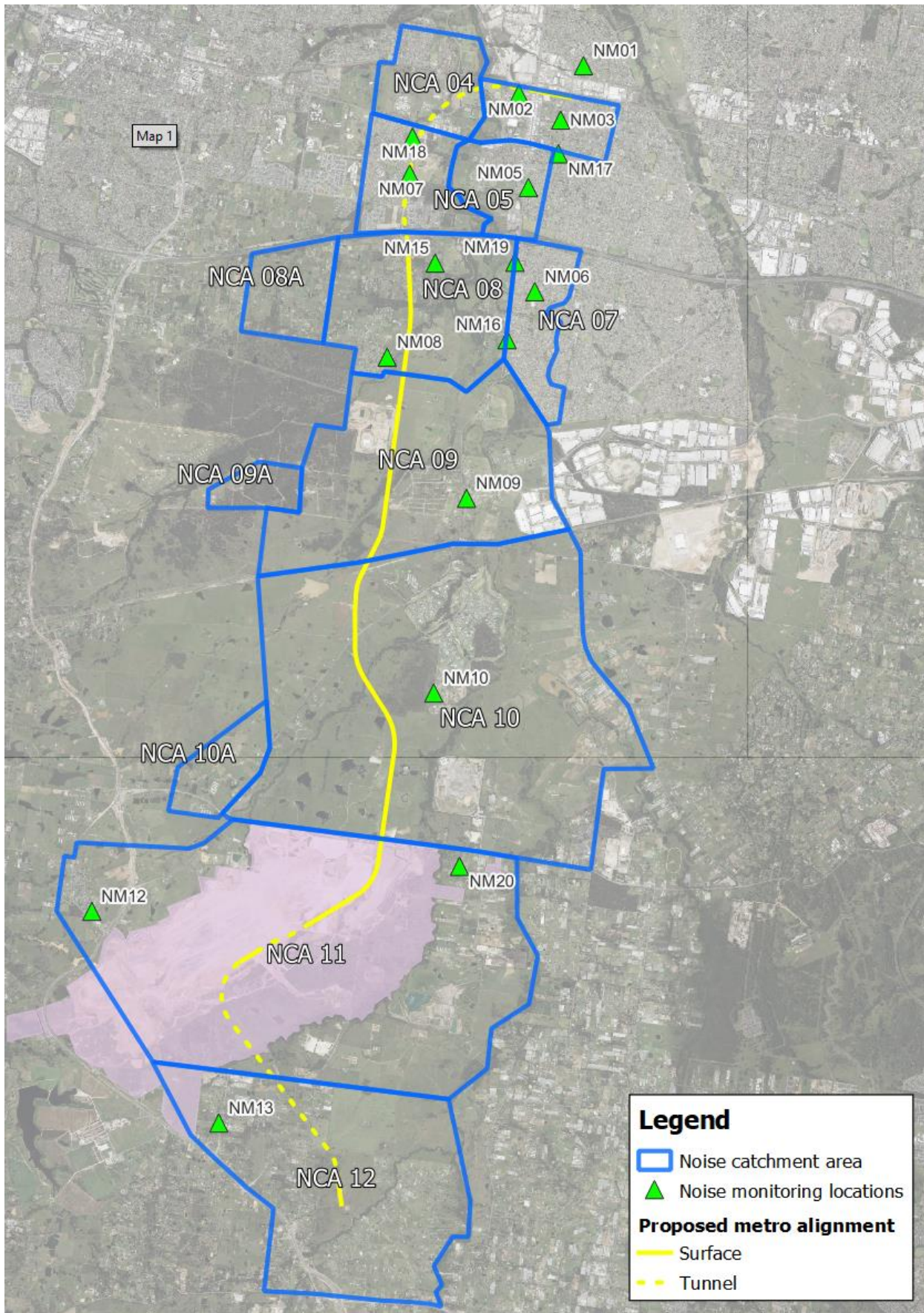


Figure 2 – Noise catchment areas and noise monitoring locations

3.2 Sensitive receivers

In accordance with Condition E37 a detailed land use survey was undertaken to confirm sensitive land use(s) (including critical working areas such as operating theatres and precision laboratories) potentially exposed to construction noise and vibration and construction ground-borne noise. The Land Use Survey is included in Appendix C2 of the SCAW Noise and Vibration Management Plan and informs the development of this DNVIS.

3.3 Ambient noise environment

The prevailing background (existing) noise levels in the study area were determined in the EIS through unattended noise monitoring. The measured Rating Background Levels (RBLs) and ambient noise levels within NCAs that are applicable for this assessment are summarised in Table 5. Refer to Figure 2 for an illustration of the noise monitoring locations.

Table 5 – Summary of unattended noise monitoring results

Noise monitoring location	Rating background level (RBL) dB(A)			Ambient noise level $L_{eq, 15 \text{ minute}}$		
	Day ⁽¹⁾	Evening ⁽¹⁾	Night ⁽¹⁾	Day ⁽¹⁾	Evening ⁽¹⁾	Night ⁽¹⁾
NM08	31	(32) 31 ⁽²⁾	30	52	48	40
NM09	40	39	34	61	57	54
NM10	(30) 35 ⁽³⁾	30	30	47	42	37
NM15	44	(47) 44 ²	40	55	53	50
NM16	47	42	(28) 30 ²	59	56	54
NM19	53	48	36	62	59	57

(1) Time periods defined as – Day: 7am to 6pm Monday to Saturday, 8am to 6pm Sunday; Evening, 6pm to 10pm; Night 10pm to 7am Monday to Saturday, 10pm to 8am Sunday

(2) Where evening or night background noise levels exceed that of the previous period, they have been set at the background noise level of the previous period, in line with the NPI, to reflect community’s expectation for greater noise control during more sensitive periods

(3) Where background levels are below the minimum assumed rating background noise levels outlined in the NPI, they have been adjusted to 35 dB(A) during the day period, and 30 dB(A) during the evening and night periods in accordance with the NPI

4. Construction noise and vibration management levels

4.1 Airborne noise

The CNVS identifies the ICNG as the reference document for the determination of construction Noise Management Levels (NMLs). Table 6 sets out the application of the management levels for noise at residential receivers.

Table 6 – ICNG noise management levels for residential receivers

Time of day	Noise management level, $L_{Aeq}(15 \text{ min})$	Application
Recommended standard hours: <ul style="list-style-type: none"> ▪ Monday to Friday 7am to 6pm ▪ Saturday 8am to 1pm ▪ No work on Sundays or public holidays 	Noise affected RBL + 10 dB	CPBUI will apply feasible and reasonable work practices to meet the noise affected level where the predicated or measured L_{Aeq} (15 min) is greater than the noise affected level.
	Highly noise affected 75 dB(A)	The highly noise affected level represents the point above which there may be strong community reaction to noise.
Outside recommended standard hours	Noise affected RBL + 5 dB	A strong justification would be required for works undertaken outside of the recommended standard hours. CPBUI will apply feasible and reasonable work practices to meet the noise affected level.

NMLs have been derived for the identified land uses, and representative RBLs for residential receivers as described in Table 5. presents the adopted NMLs for residential receivers within each NCA are derived from EIS Tech Paper 2 (Table 4-9) and are provided in Table 7.

Table 7 – Noise management levels and sleep disturbance screening criteria by NCA and period

NCA	Noise management level – dB(A)			
	Standard hours $L_{eq,15min}$	OOH – Day $L_{eq,15min}$	OOH – Evening $L_{eq,15min}$	OOH – Night $L_{eq,15min}$
NCA08	54	49	49	45
NCA09/09A	50	45	44	39
NCA10/10A	45	40	35	35

4.1.1 Sleep disturbance

Construction noise during the night (i.e. 10pm to 7am Monday to Saturday and 10pm to 8am Sunday) has the potential to awaken residents from sleep. The CNVS refers to the Road Traffic Authority's (RTA) *Environmental Noise Management Manual* (ENMM) (RTA, 2001) and DECCW's *Environmental Criteria for Road Traffic Noise* (ECRTN) (RTA, 1999) for guidance relevant to the assessment of sleep disturbance and awakening. These guidelines have been superseded by the *Road Noise Policy* (RNP) (DECCW, 2011).

The RNP notes that the ECRTN discussed a guideline, aimed at limiting sleep disturbance due to environmental noise of, $L_{AF1,1min}$ should not exceed the ambient $L_{A90} + 15$ dB. Section 5.4 of the RNP then goes on to state that:

- *Maximum internal noise levels below 50 to 55 dB(A) L_{max} would be unlikely to awaken people from sleep; and*
- *One or two noise events per night, with maximum internal noise levels of 65-70 dB(A), are not likely to affect health and wellbeing significantly.*

The guidance within the RNP indicates that internal noise levels of 50 to 55 dB(A) L_{max} are unlikely to cause sleep awakenings. It follows that at levels above 55 dB(A) L_{max} , sleep awakening would be considered likely. Assuming receivers may have windows partially open for ventilation, a +10 dB inside to outside correction has been adopted as indicated in the ICNG.

The NPI also contains guidance on sleep disturbance and awakening, using the following screening levels to identify where further investigation of sleep disturbance and awakening should be undertaken:

- $L_{eq,15min}$ 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or
- L_{fmax} 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater.

The assessment of $L_{eq,15 min}$ against the prevailing RBL plus 5 aligns with construction noise management levels (as defined in Section 4.1) and would be covered under the assessment against construction noise management levels. The assessment L_{max} against the prevailing RBL plus 15 dB aligns with the ECRTN guidance.

Therefore, sleep disturbance and awakening external noise level screening levels of the NPI L_{fmax} and the RNP L_{fmax} 65 dB(A), whichever is most conservative (lowest) within each NCA, has been adopted as the sleep disturbance criteria and is presented in Table 8.

Table 8 – Sleep disturbance criteria by NCA

NCA	Sleep disturbance L_{max} dB(A)
NCA09/09A	52
NCA10/10A	52

4.1.2 Other receivers

Table 9 presents the NMLs for non-residential sensitive receivers derived from the criteria in the ICNG. In accordance with Condition E45, noise generating work in the vicinity of potentially-affected community, religious, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) resulting in noise levels above the NMLs will not be timetabled within sensitive periods, unless other reasonable arrangements have been made with the affected institution.

Table 9 – Noise management levels for non-residential receivers

Land use	Noise management level (external) L _{eq, 15 min} – dB(A)
Educational	55 ⁽¹⁾
Commercial (offices, retail outlets)	70
Commercial (industrial)	75
Active recreation	65
Passive recreation	60
Place of worship	55 ⁽¹⁾
Child care centres	55 ⁽¹⁾
Community centres	60 ^{(1) (2)}

(1) An internal to external correction of +10 dB has been applied as per the ICNG.

(2) The maximum Leq sound design level for Municipal buildings – public spaces in AS 2107 has been applied for community centres.

4.2 Ground-borne noise

Ground-borne noise is generated by vibration transmitted through the ground and into a structure. The CNVS refers to guidance in the ICNG, which specifies ground-borne noise management levels for residences. Mitigation measures will be applied when residential ground-borne NMLs are exceeded in accordance with Condition E44. Table 10 provides the NML for residential receivers. These levels are applicable when ground-borne noise levels are higher than airborne noise levels during the evening and night periods.

Table 10 – Ground-borne NML – Residential

Period	Time of day	NML L _{eq,15min}
Evening	6pm to 10pm	40 dB(A) internal
Night	10pm to 7am	35 dB(A) internal

4.3 Construction traffic

The CNVS outlines guidance for the assessment of road traffic noise generated by construction vehicles be taken from the Road Noise Policy (RNP) (NSW EPA, 2011). As the RNP provides guidance with relation to operational noise impacts, and noise from construction traffic is non-permanent, further guidance has been taken from the *Construction Noise and Vibration Guideline* (CNVG) (Roads and Maritime, 2016).

The RNP provides guidance on the assessment of noise impacts on sensitive receivers from additional road traffic generated by the project operating on a public road network. Where vehicles operate within

the boundaries of a construction site, noise impacts generated by these vehicles are included in the overall $L_{eq,15min}$ construction site noise emissions undertaken in line with the ICNG.

The RNP makes a distinction between the assessment of freeway/arterial/sub-arterial roads and local roads. Freeway/arterial/sub-arterial roads are assessed over day (7 am to 10 pm) and night (10 pm to 7 am) periods. Table 11 presents a summary of the applicable road traffic criteria for residential receivers.

The CNVG states that ‘an initial screening test should first be applied by evaluating whether noise levels will increase by more than 2 dB(A) due to construction traffic or a temporary reroute due to a road closure. Where increases are 2 dB(A) or less then no further assessment is required’.

Therefore, if the road traffic noise levels increase by more than 2 dB(A) as a result of the proposed construction traffic, and the criteria in Table 11 are exceeded, investigation of mitigation options would be required.

Table 11 – Road traffic noise criteria for residential receivers on existing roads affected by additional traffic from land use developments

Road type	Road traffic noise criteria	
	Day (7am to 10pm)	Night (10pm to 7am)
Freeway/Arterial/Sub-arterial	60 $L_{eq,15hr}$ dB(A)	55 $L_{eq,9hr}$ dB(A)
Local roads	55 $L_{eq,1hr}$ dB(A)	50 $L_{eq,1hr}$ dB(A)

4.4 Construction Vibration Criteria

Condition E43 requires that the project be constructed with aim of achieving the following vibration criteria:

- Assessing vibration: a technical guideline (DEC, 2006) – for human exposure
- BS 7385 Part 2-1993 ‘Evaluation and measurement for vibration in buildings Part 2’ as they are applicable to Australian conditions, and
- The vibration limits set out in the German Standard DIN 4150-3: Structural Vibration – effects of vibration on structures (for structural damage).
- Guidelines for Development Adjacent to the Upper Canal and Warragamba Pipelines (WaterNSW, 2020) – for impact on the Warragamba pipeline.
-

The following sections provide detail on each criterion.

4.4.1 Cosmetic building damage

The CNVS refers to the EPA’s Assessing Vibration – A technical guideline (AVTG) which recommends the use of British Standard BS 7385-2: Evaluation and measurement for vibration in buildings, Guide to damage levels from ground-borne vibration (BS7385-2) in defining frequency dependent guideline values and assessment methods as they “are applicable to Australian conditions”. However, the SEARs specify German Standard DIN 4150-3: Structural vibration – Effects of vibration on structures (DIN 4150). DIN 4150 provides the more conservative guidance, and hence, adoption of DIN 4150 as recommended results in compliance with the CNVS. Table 12 summarises the recommended limits outlined in DIN 4150 to ensure minimal risk of cosmetic damage to residential and industrial buildings.

On this basis, conservative general vibration screening levels (Peak Particle Velocity (PPV)) is provided for intermittent vibration sources as follows:

- reinforced or framed structures: 10 mm/s
- unreinforced or light framed structures 5 mm/s.

At locations where the predicted and/or measured vibration levels are greater than shown above, monitoring should be performed during construction. A more detailed analysis of the building structure, vibration source, dominant frequencies and dynamic characteristics of the structure would also be performed to determine the applicable safe vibration level.

Table 12 – Recommended vibration limits for cosmetic damage

Type of structure	Guideline values for velocity, v_i , in mm/s, of vibration in horizontal plane of highest floor, at all frequencies ¹
Buildings used for commercial purposes, industrial buildings and buildings of similar design	10
Dwellings and buildings of similar design and/or occupancy	5
Structures that, because of their particular sensitivity to vibration, cannot be classified under lines 1 and 2 and are of great intrinsic value (e.g. listed buildings under preservation order)	2.5

(1) If a building is subjected to harmonic vibration, then the maximum values can also occur in floors other than the top floor, or in the foundation. The values given in the table also apply in these cases.

4.4.1 Human comfort

With regards to assessing loss of amenity due to perceptible vibration, the CNVS requires the assessment of vibration impacts on human comfort in accordance with Assessing Vibration – A technical guideline (DEC, 2006) (AVTG). AVTG presents preferred and maximum vibration values (vibration dose values), above which there is considered to be a risk that the amenity and comfort of people occupying buildings would be adversely affected by construction work. The preferred vibration values are not mandatory limits but should be sought to be achieved through application of all feasible and reasonable mitigation measures.

Intermittent vibration is expected to be generated from most construction works, and can be defined as interrupted periods of continuous vibration (e.g. a drill), or repeated periods of impulsive vibration (e.g. a pile driver). The applicable criteria for intermittent vibration are shown in Table 13 as vibration dose value ($m/s^{1.75}$).

The vibration guideline also specifies limits for continuous and impulsive vibration. These summarised vibration limits are expressed in acceleration (m/s^2) and PPV (mm/s) as presented in Table 2.2 and Appendix C of the AVTG and summarised in Table 14. When short-term works such as piling, demolition and construction give rise to impulsive vibrations, undue restriction on vibration values may significantly prolong these operations and result in greater annoyance. Where work is short term, feasible and reasonable mitigation measures have been applied, then higher vibration values may apply.

Table 13 – Vibration limits for human exposure from intermittent vibration

Location	Assessment period ¹	Vibration dose value (m/s ^{1.75})	
		Preferred value	Maximum value
Residences	Daytime	0.2	0.4
	Night-time	0.13	0.26
Offices, schools, educational institutions and places of worship	Anytime	0.4	0.8
Workshops	Anytime	0.8	1.6

(1) Daytime is 7.00 am to 10.00 pm and night-time is 10.00 pm to 7.00 am

Table 14 – Preferred maximum values for continuous and impulsive vibration

Location	Assessment period	¹ RMS acceleration m/s ²				² Peak Particle Velocity mm/s	
		Preferred values		Maximum values		Preferred values	Maximum values
		Z-Axis	X and Y axis	Z-axis	X and Y axis		
Continuous vibration							
Critical areas	Day or night-time	0.0050	0.0036	0.010	0.0072	0.14	0.28
Residences	Daytime ³	0.010	0.0071	0.020	0.014	0.28	0.56
	Night-time	0.007	0.005	0.014	0.010	0.20	0.40
Offices, schools, educational institutions, and places of worship	Day or night-time	0.020	0.014	0.040	0.028	0.56	1.1
Workshops	Day or night-time	0.04	0.029	0.080	0.058	1.1	2.2
Impulsive vibration							
Critical areas	Day or night-time	0.0050	0.0036	0.010	0.0072	0.14	0.28
Residences	Daytime ³	0.3	0.21	0.60	0.42	8.6	17.0
	Night-time	0.10	0.071	0.20	0.14	2.8	5.6
Offices, schools, educational institutions, and places of worship	Day or night-time	0.64	0.46	1.28	0.92	18.0	36.0
Workshops	Day or night-time	0.64	0.46	1.28	0.92	18.0	36.0

(1) Values derived from z-axis critical frequency range

(2) Values given for the most critical frequency range >8 Hz assuming sinusoidal motion. Where required, a more detailed analysis can be conducted as per AS 2670.2-1990. Sufficient justification should accompany the use of a peak velocity approach if used in an assessment.

(3) Specific values depend on social and cultural factors, psychological attitudes and expected degree of intrusion.

4.4.2 Vibration sensitive structures – heritage

Heritage listed structures should not be assumed to be more sensitive to vibration unless they are structurally unsound, which is unlikely for a regularly maintained structure. Where a historic structure is deemed to be sensitive to damage from vibration following inspection by qualified structural and/or civil engineers, more conservative superficial cosmetic damage criterion (2.5 mm/s PPV) should be considered, as noted in Table 12.

Buildings that are potentially at risk of threshold or cosmetic damage would be identified by the contractor prior to the commencement of construction works. Management at these locations will include building condition surveys before the commencement of construction activities and after construction is completed in accordance with Condition E84 and E85.

In accordance with REMM NAH8, a dilapidation survey of the Warragamba to Prospect Water Supply Pipelines would be undertaken prior to construction commencing in the vicinity of this item. In accordance with Condition E121 CPBUI will consult with WaterNSW where SCAW interacts with the Warragamba to Prospect Water Supply Pipeline to ensure that design and construction methodology is consistent with *Guidelines for Development Adjacent to the Upper Canal and Warragamba Pipelines*.

4.4.3 Utilities and other vibration sensitive structures

In accordance with Condition E82 the SCAW must be designed and constructed with the objective of minimising impacts to, and interference with third party property, and that such infrastructure and property is protected during construction.

Where structures and utilities sensitive to vibration are encountered, or where that asset provides an essential service for the community, a vibration goal, which is more stringent than structural damage goals may need to be adopted. Examples of such structures and utilities include:

- tunnels
- pipelines
- fibre optic cables.

Specific vibration criteria would be determined on a case-by-case basis. In accordance with Condition E83, the services potentially affected by construction will be identified to determine requirements for diversion, protection and / or support. In consideration of proposed civils activities works are likely to be required in close proximity to existing utilities and services. In all cases, protection requirements or alterations to services will be determined by negotiation with the service providers. This will be managed in accordance with the specific process of the asset owner, and as identified in the Project Interface Management Plan. Disruption to services resulting from construction will be avoided, wherever possible, and advised to customers where it is not possible. In lieu of specific vibration criteria being provided by the asset owner, screening criteria would be adopted from guidance provided in DIN 4150-3 for buried pipework. The screening criteria is outlined in Table 15.

Table 15 – Guideline values for vibration velocity to be used when evaluating the effects of vibration on buried pipework

Pipe Material	Guideline values for velocity measured on the pipe, v_i , in mm/s
Steel (including welded pipes)	100
Clay, concrete, reinforced concrete, pre-stressed concrete, metal (with or without flange)	80
Masonry, plastic	50

4.4.3.1 Warragamba to Prospect Water Supply Pipeline

Guidelines for Development Adjacent to the Upper Canal and Warragamba Pipelines (WaterNSW, 2020) outlines that jackhammering, piling and excavation methods must be undertaken in manner that complies with German Standard DIN 4150-3:2016 (2.5 mm/s PPV) for construction works occurring in proximity to the pipelines.

In accordance with REMM NV2, a DNVIS must be undertaken in accordance with the WaterNSW Guideline to avoid the potential for vibration impacts upon the Warragamba to Prospect Water Supply Pipeline. This DNVIS has been developed to address the requirements of REMM NV2 and a detailed vibration assessment is included in Section 5.2.3.2.

4.4.4 Safe working distance

Where vibration intensive works are required to be undertaken within the specific minimum working distances, vibration monitoring should be undertaken to ensure acceptable levels of vibration are satisfied. In relation to human comfort, the minimum working distances relate to continuous vibration. For most construction activities, vibration emissions would be intermittent in nature and for this reason, higher vibration levels, occurring over shorter periods may be allowed. Table 16 presents the recommended minimum working distances for vibration intensive plant.

Table 16 – Recommended minimum working distances for vibration intensive plant

Plant item	Rating / description	Minimum working distance – cosmetic damage (BS7385)	Minimum working distance – human response (DECC 2006)
Vibratory roller	< 50 kN (Typically 1-2 tonnes)	5 m	15 m to 20 m
	< 100 kN (Typically 2-4 tonnes)	6 m	20 m
	< 200 kN (Typically 4-6 tonnes)	12 m	40 m
	< 300 kN (Typically 7-13 tonnes)	15 m	100 m
	> 300 kN (Typically 13-18 tonnes)	20 m	100 m
	> 300 kN (> 18 tonnes)	25 m	100 m
Small Hydraulic Hammer	(300 kg - 5 to 12t excavator)	2 m	7 m
Medium Hydraulic Hammer	(900 kg – 12 to 18t excavator)	7 m	23 m
Large Hydraulic Hammer	(1600 kg – 18 to 34t excavator)	22 m	73 m
Vibratory Pile Driver	Sheet piles	2 m to 20 m	20 m
Pile Boring	≤ 800 mm	2 m (nominal)	4 m
Jackhammer	Handheld	1 m (nominal)	2 m

5. Construction noise and vibration assessment

5.1 Construction activities

Prediction of construction noise levels at sensitive receivers was modelled using the SoundPLAN (Version 8.2) noise modelling software based on the ISO9613 prediction algorithm. This three-dimensional model accounts for noise source and receiver locations, ground and air absorption as well as any acoustic shielding provided by intervening topography and structures. Conservatively, it does not include any standard or project-specific mitigation measures. Proposed mitigation measures, and their acoustical benefits are detailed in Section 6.

Construction noise activities and proposed equipment are indicated in Table 17. Sound Power Levels (L_w) of equipment were either sourced from Transport for NSW's "*Construction Noise and Vibration Strategy*", the UK's Department for Environment, Food and Rural Affairs "*Update of Noise Database for Prediction of Noise On Construction and Open Sites*", or Resonate's construction plant & equipment noise database.

Table 17 - Construction stages and sound power levels used in the modelling of construction noise

Stage	OOHW period (D/E/N) ⁽¹⁾	Activity	Plant and equipment	Individual plant item L _w , dB(A) ⁽²⁾⁽³⁾	Plant items total	Plant operating time (%)	Individual plant item L _{eq 15min} , dB(A)	Individual plant item L _{max} , dB(A) ⁽³⁾
Warragamba Pipeline – Activity 1 – Earthworks	D/E/N	Topsoil stripping	Grader	110	1	50	110	110
		Fencing installation	Post driver	116	1	50	113	121
		Cut/ fill material	D6 Dozer (Dozer (tracking) - equiv. CAT D8) ²	118	1	50	115	118
		Place sandstone crane / piling pads						
		Cut/ fill material	Padfoot roller	109	1	25	103	111
		Place sandstone crane / piling pads						
Stormwater trenching and laying	20T Excavator	105	1	25	99	105		
Warragamba Pipeline – Activity 2a – Structures (piling activities)	D/E/N	Pile drilling	Piling rig (Bored)	110	1	50	107	110
		Moving pile cage	Crane mobile	110	1	50	107	110
		Pile trimming	Excavator (Approx. 10T)	100	1	66	98	100
			Compressor 4.5 m ³ /min	105	1	50	102	105

Stage	OOHW period (D/E/N) ⁽¹⁾	Activity	Plant and equipment	Individual plant item L _w , dB(A) ⁽²⁾⁽³⁾	Plant items total	Plant operating time (%)	Individual plant item L _{eq 15min} , dB(A)	Individual plant item L _{max} , dB(A) ⁽³⁾
			Jackhammer	113	1	50	110	113
Warragamba Pipeline – Activity 2b – Structures (FRP activities)	D/E/N	Install reo cage and formwork	Crane mobile	110	1	50	107	110
		Concrete truck delivery and placement	Concrete agitator	109	1	100	109	109
		Concrete vibration	Concrete vibrator	105	1	50	102	105
		Relocating materials	Forklift	100	1	50	97	105
Activity 3 – Roundabout service installation works	D/E/N	Potholing services	Sucker truck (Vacuum truck)	109	1	50	106	109
		Service / stormwater installation crew	14T Excavator	100	1	50	97	100
			22T Wheeled excavator	105	1	50	102	105
			CC10 roller (smooth drum roller)	107	1	50	104	112
			Plate compactor (Jumping jack)	106	1	50	103	111
			Hand tools	94	2	50	94	102
		Asphalt cutting	Road saw	118	1	25	112	118
		Other	Bogie tippers	103	2	50	103	108
			Lighting towers	80	1	100	80	80
			Traffic control vehicle	103	3	33	103	111
	N	Barrier installation	Road truck 39T	108	1	25	102	108
			Franna crane	98	1	50	95	103

Stage	OOHW period (D/E/N) ⁽¹⁾	Activity	Plant and equipment	Individual plant item L _w , dB(A) ⁽²⁾⁽³⁾	Plant items total	Plant operating time (%)	Individual plant item L _{eq 15min} , dB(A)	Individual plant item L _{max} , dB(A) ⁽³⁾
Activity 4 – Barrier installation			Lighting tower	80	1	100	80	80
			Traffic control vehicle	103	3	33	103	111
Activity 5 – Road box out and pavement placement	D	Pavement placement	24T wheeled excavator	110	1	50	107	-
			25T excavator	110	1	50	107	-
			Grader	110	1	50	110	-
			Smooth drum roller	107	1	66	105	-
			Watercart	107	1	100	107	-
			Moxie	110	3	66	113	-
			30T excavator at Celestino's	110	1	50	107	-
Activity 6 – FRP crew	D/E/N	FRP crew	Concrete agitator	109	1	25	103	109
			Kerb machine	114	1	25	108	116
			Hand tools	94	1	66	92	100
			Traffic control vehicle	103	3	33	103	111
			Lighting tower	80	1	100	80	80
Activity 7 – Road asphalting	D/E/N	Road asphalting	Pavement machine	114	1	66	112	120
			Road truck 39T	108	1	25	102	108
			Smooth drum roller	107	1	66	105	113
			Bobcat (Skid steer ½ tonne)	107	1	66	105	107
			Multi tyre roller	107	1	66	105	113

Stage	OOHW period (D/E/N) ⁽¹⁾	Activity	Plant and equipment	Individual plant item L _w , dB(A) ⁽²⁾⁽³⁾	Plant items total	Plant operating time (%)	Individual plant item L _{eq 15min} , dB(A)	Individual plant item L _{max} , dB(A) ⁽³⁾
			Buggy (Skid steer ½ tonne)	107	1	66	105	107
			Lighting tower	80	1	100	80	80
			Traffic control vehicle	103	3	33	103	111
Activity 8a - Line marking and signage installation. Luddenham Rd Roundabout works – Lighting	D/E/N	Line marking	Line marking machine	108	1	66	106	114
			Hand tools	94	1	50	91	99
			Light vehicles	103	2	33	101	109
			Traffic control vehicle	103	3	33	103	111
		Lighting	Lighting tower	80	4	100	86	80
		Lighting within Celestino's	Lighting tower	80	4	100	86	80
Activity 9 – Viaduct alignment earthworks	D/E/N	Fill / Placement	D6 Dozer (Dozer (tracking) - equiv. CAT D8) ²	118	1	50	115	118
			Grader	110	1	50	107	110
			Excavator	110	3	66	113	116
			Landfill compactor (equiv. 20 T excavator)	105	1	100	105	113
			Dump truck	108	2	66	109	108
			Truck and Dogs (x5 per 15 mins)	108	1	66	106	108
			Lighting tower	80	2	100	80	80

Stage	OOHW period (D/E/N) ⁽¹⁾	Activity	Plant and equipment	Individual plant item L _w , dB(A) ⁽²⁾⁽³⁾	Plant items total	Plant operating time (%)	Individual plant item L _{eq 15min} , dB(A)	Individual plant item L _{max} , dB(A) ⁽³⁾
Activity 10 – Viaduct alignment earthworks	D	Haul road	D6 Dozer (Dozer (tracking) - equiv. CAT D8) ²	118	1	50	115	-
			Grader	110	1	50	107	-
			30T Excavator	110	1	66	108	-
			Padfoot/ smooth drum roller	109	1	50	106	-
			Dump truck	108	2	66	109	-
			Truck and Dogs (x2 per 15 mins – 100 loads)	108	1	100	108	-
			Water cart	107	1	100	107	-
Activity 11 – Viaduct alignment	D/E	Piling works	110T crawler crane	110	1	50	107	-
			Piling rig	110	1	33	105	-
			Excavator	105	1	66	103	-
			Lighting tower	80	2	100	83	-
			EWP	98	1	33	93	-
Activity 12 – Viaduct alignment	D/E/N	Oversized deliveries	110T crawler crane	110	1	50	107	110
			Lighting tower	80	2	100	83	80
			Trucks	108	2	25	105	108
Activity 13 – Viaduct alignment	D/E	Piling (while pouring)	110T Crawler crane	110	1	50	107	-
			Lighting tower	80	1	100	80	-
			EWP	98	1	33	93	-

Stage	OOHW period (D/E/N) ⁽¹⁾	Activity	Plant and equipment	Individual plant item L _w , dB(A) ⁽²⁾⁽³⁾	Plant items total	Plant operating time (%)	Individual plant item L _{eq 15min} , dB(A)	Individual plant item L _{max} , dB(A) ⁽³⁾
			Concrete truck discharging (Concrete agi)	112	1	100	112	-
			Concrete pump truck	109	2	50	109	-
Activity 14 – Viaduct alignment	D/E/N	FRP works – Steel fixing	Welding equipment	105	1	25	99	107
			Battery grinders	102	1	25	96	104
			Hand tools (electric)	102	1	25	96	104
			300T Crawler crane	110	1	100	110	110
			6T telehandler	100	1	25	94	102
			Lighting tower	80	2	100	83	80
Activity 15 – Viaduct alignment	D/E/N	FRP works – formwork installation	110T Crawler crane	110	1	50	107	110
			6T telehandler	100	1	33	95	103
			Impact wrench	111	1	33	106	114
			Hand tools	94	1	25	88	96
			Lighting tower	80	2	100	83	80
			Elevated work platform	98	1	66	96	104
Activity 16 – Viaduct alignment	D/E/N	FRP works - concreting	Concrete truck discharging (Concrete agi)	109	1	100	109	109
			Concrete pump truck	109	2	50	109	109
			Concrete vibrators	105	2	66	106	114

Stage	OOHW period (D/E/N) ⁽¹⁾	Activity	Plant and equipment	Individual plant item L_w , dB(A) ⁽²⁾⁽³⁾	Plant items total	Plant operating time (%)	Individual plant item $L_{eq\ 15min}$, dB(A)	Individual plant item L_{max} , dB(A) ⁽³⁾
			6T telehandler	100	1	33	95	103
			Hand tools	94	1	25	88	96
			Lighting tower	80	1	100	80	80

(1) Outside of Hours Work (OOHW) periods defined as:

- a. Day (D): 7am to 8am and 1pm to 6pm Saturday, 7am to 6pm Sunday
- b. Evening (E): 6pm to 10pm Monday to Sunday
- c. Night (N): 10pm to 7am Monday to Sunday

(2) 5 dB penalty applied for high noise impact activities (where applicable), having the qualities of being Impulsive, intermittent, tonal, or low frequency. Penalty not included in displayed value

(3) Maximum allowable Sound Power Levels for construction equipment from the Sydney Metro Construction Noise and Vibration Strategy 2018 applied.

(4) The $L_{eq\ 15\ min}$ dB(A) has been derived from the plant item L_w , total plant items and operating time.

5.2 Out of hours Works Discussion

Construction activities as detailed in Table 16 are assessed as part of this DNVIS across both Standard Construction and Out of Hours Periods to inform the project OOHW process and facilitate compliance with the Project EPL.

Viaduct Construction / Structures works (Activities 9-16) will be conducted within the area's identified in Appendix A for approximately 12 months. The works have been assessed during the day, evening, and night periods to help facilitate the CPBUI Community Engagement Team's consultation process if Out of Hours works are required.

Should the project need to operate outside of standard construction hours this assessment will be used to determine the impacted receivers to allow CPBUI to complete a negotiated agreement in accordance with EPL condition E1.1 or be used to support the application for an EPL variation.

Specific detail on mitigation measures and consultation, including E57 compliance, will be addressed on a case by case basis for each proposed OOHW activity, captured by the OOHW Permit process.

5.3 Noise and vibration impacts

5.3.1 Construction noise assessment

L_{Aeq} noise contours from the construction activity are presented in Appendix B – Noise contours. Detailed predictions of noise levels from construction activities at individual residences are presented in Appendix C – Detailed noise predictions. The degree to which the NMLs are exceeded dictates the extent of additional noise mitigation measures (refer to Section 6.2).

5.3.1.1 Day OOHW assessment summary

Table 18 summarises the worst case predicted noise levels and the number of receivers where the NMLs are likely to be exceeded for each construction activity during the out of hours daytime period (OOH Period 1) as presented in Appendix C.

Table 18 - Construction noise assessment out of hours daytime summary

Construction stage	Number of receivers exceeding NMLs (Day OOHW)	Worst case predicted noise level dB(A)	Number of receivers predicted to be in the highly noise affected category (> 75 dB(A))
Activity 1	64	54	0
Activity 2a	13	49	0
Activity 2b	3	46	0
Activity 3	194	60	0
Activity 5	134	56	0
Activity 6	78	54	0
Activity 7	123	56	0
Activity 8	25	49	0
Activity 9	192	57	0
Activity 10	199	58	0
Activity 11	15	51	0
Activity 12	8	50	0
Activity 13	36	53	0
Activity 14	9	50	0
Activity 15	17	52	0
Activity 16	12	51	0

5.3.1.2 Evening OOHW assessment summary

Table 19 summarises the worst case predicted noise levels and the number of receivers where the NMLs are likely to be exceeded for each construction activity during the out of hours evening period (OOH Period 1) as presented in Appendix C.

Table 19 - Construction noise assessment evening summary

Construction stage	Number of receivers exceeding NMLs (Evening OOHW)	Worst case predicted noise level dB(A)	Number of receivers predicted to be in the highly noise affected category (> 75 dB(A))
Activity 1	224	54	0
Activity 2a	70	49	0
Activity 2b	32	46	0
Activity 3	266	60	0
Activity 6	215	54	0
Activity 7	250	55	0
Activity 8	69	49	0
Activity 9	286	57	0
Activity 11	132	51	0
Activity 12	81	50	0
Activity 13	198	53	0
Activity 14	90	50	0
Activity 15	139	52	0
Activity 16	111	51	0

5.3.1.3 Night-time OOHW assessment summary

Table 20 summarises the worst case predicted noise levels and the number of receivers where the NMLs are likely to be exceeded for each construction activity during the most stringent out of hours night-time (OOH Period 2) as presented in Appendix C.

Table 20 - Construction noise assessment night-time summary

Construction stage	Number of receivers exceeding NMLs (Night OOHW)	Worst case predicted noise level dB(A)	Number of receivers predicted to be in the highly noise affected category (> 75 dB(A))
Activity 1	225	54	0
Activity 2a	70	49	0
Activity 2b	32	46	0
Activity 3	266	60	0
Activity 4	59	48	0
Activity 6	215	54	0
Activity 7	251	56	0
Activity 8	69	49	0
Activity 9	287	57	0

Construction stage	Number of receivers exceeding NMLs (Night OOHW)	Worst case predicted noise level dB(A)	Number of receivers predicted to be in the highly noise affected category (> 75 dB(A))
Activity 12	81	50	0
Activity 14	90	50	0
Activity 15	139	52	0
Activity 16	111	51	0

5.3.1.4 Sleep disturbances

A summary of exceedances by construction activity is provided in Table 21 and the detailed predictions for individual residences are presented in Appendix D – Sleep disturbance.

Table 21 – Sleep disturbance noise assessment

Activity	Number of receivers exceeding sleep screening criteria - L_{Fmax} dB(A)	Worst case predicted noise level - L_{Fmax} dB(A)
Activity 1	2	56
Activity 2a	0	49
Activity 2b	0	47
Activity 3	43	63
Activity 4	3	63
Activity 6	19	67
Activity 7	44	72
Activity 8	13	66
Activity 9	6	59
Activity 12	0	50
Activity 14	0	50
Activity 15	1	54
Activity 16	1	54

As shown in Table 21 the maximum noise levels are predicted to exceed the screening trigger levels for sleep disturbance at some surrounding residences during the proposed night time construction activities.

However, the RNP's sleep disturbance research concludes the following:

- Maximum internal noise levels below 50 to 55 dB(A) L_{max} would be unlikely to awaken people from sleep; and
- One or two noise events per night, with maximum internal noise levels of 65-70 dB(A), are not likely to affect health and wellbeing significantly.

Based on the above RNP research the receivers shown in Table 21 and Appendix D that exceed the sleep screening criteria are unlikely to awaken people from sleep.

5.3.1.5 Subjective Classification of Noise Impact

In consideration of the assessed noise impacts, land use zoning, likelihood of sleep disturbance, proximity to sensitive receivers and existing ambient noise levels, activities assessed in this DNVIS are generally considered to be classified as low impact in line with Section 3.1 of the Sydney Metro CNVS. Subjective classification for each activity is shown in Table 22.

Table 22 – Subjective Noise Impact Classification

Activity	Subjective Noise Impact Classification
Activity 1	Low
Activity 2a	Low
Activity 2b	Low
Activity 3	Low
Activity 4	Low
Activity 5	Low
Activity 6	Low
Activity 7	Low
Activity 8	Low
Activity 9	Low
Activity 10	Low
Activity 11	Low
Activity 12	Low
Activity 13	Low
Activity 14	Low
Activity 15	Low
Activity 16	Low

The standard and additional mitigation measures identified in Section 6 are considered appropriate to mitigate potential impacts based on the above classifications.

5.3.2 Construction traffic

The results of the construction traffic assessment presented in Table 4-31 of the EIS, and shown in Figure 3 indicate that construction road traffic noise levels are predicted to comply with relevant RNP noise criteria at the majority of project affected roads. SCAW construction traffic will access worksites via the designated heavy vehicle routes illustrated in Figure 3. Therefore, no additional noise mitigation or management measures would be required at these locations.

Primary Haul Roads for this DNVIS include:

- Great Western Highway,
- M4 Motoroway,
- Mamre Road,
- Elizabeth Drive,
- Luddenham Road,
- The Northern Road.

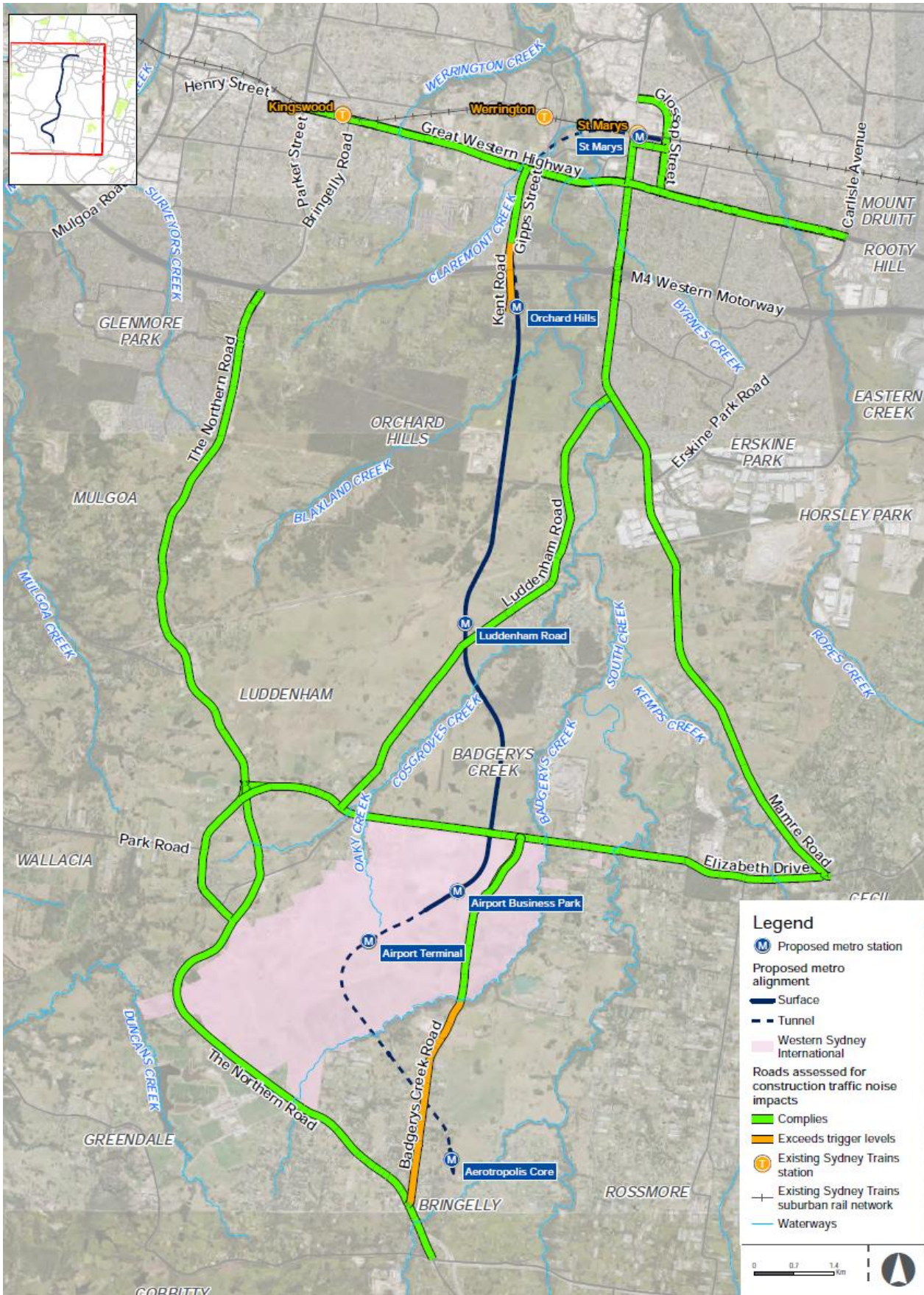


Figure 3 – Roads considered for EIS construction traffic noise assessment

5.3.2.1 Ground-borne noise

Ground-borne noise results from the transmission of vibration rather than the direct transmission of noise through the air. Ground-borne (or regenerated) construction noise is often of primary concern on tunnelling projects when vibration from activities such as rock-breaking, road heading, rotary cutting, tunnel boring and rock drilling/sawing can be transmitted through the ground and into the habitable areas of nearby buildings. Ground-borne noise occurs when this vibration in the ground and/or building elements is regenerated as audible noise within areas of occupancy inside the building.

The ICNG defines internal ground-borne noise goals for residential receivers of 40 dB(A) $L_{eq(15min)}$ during the evening (6 pm to 10 pm) and 35 dB(A) $L_{eq(15min)}$ during the night-time (10 pm to 7 am). These goals are only applicable when ground-borne noise levels are higher than airborne noise levels.

Due to the distance between construction works and receivers, ground-borne noise impacts are expected to be negligible in comparison to airborne noise impacts. For this reason, ground-borne noise is not anticipated to be the controlling factor for these proposed works and therefore further assessment is not warranted. As identified in the EIS, the application of standard mitigation measures for the control of airborne noise emissions and vibration is expected to adequately address ground-borne noise.

5.3.3 Construction vibration assessment

5.3.3.1 Cosmetic damage and human response assessment

Vibration intensive plant have been proposed for two activities, i.e. Activity 2a and Activity 11. There are no vibration intensive plant items proposed for the rest of the activities. The plant items proposed for the two activities include:

- Activity 2a – pile boring rig and jackhammer
- Activity 11 – pile boring rig

The construction vibration assessment of the proposed vibration intensive plant has been conducted and is summarised in Table 23 below.

Table 23 – Construction vibration assessment summary

Activity	Plant item	Nearest receiver(s)	Distance between activity and nearest receiver (m)	Cosmetic damage assessment		Human response assessment	
				Minimum working distance (m)	Compliance with minimum distance (Yes / No)	Minimum working distance (m)	Compliance with minimum distance (Yes / No)
2a	Pile boring rig	NCA10.RES.292	500	2	Yes	4	Yes
	Jackhammer		500	1	Yes	2	Yes
11	Pile boring rig	NCA10.RES.302, NCA10.RES.311	300	2	Yes	4	Yes

Based on the vibration assessment summary presented in Table 23, the vibration intensive plant items proposed for Activity 2a and Activity 11 will not adversely impact on any surrounding noise sensitive receivers. Therefore, additional vibration mitigation measures will not be required. There are no heritage structures in proximity to Activity 2a and Activity 11.

5.3.3.2 Warragamba pipeline construction vibration assessment

Activities 1, 2a and 2b have been proposed to be conducted in close proximity of the Warragamba pipelines. However, only Activity 2a will require the use of vibration intensive plant items. Activities 1 and 2b works will not consist of vibration intensive plant. The vibration intensive plant items proposed for Activity 2a works include:

- Pile boring rig
- Jackhammer

The usage of the pile boring rig and jackhammer would be at the proposed location of the viaduct support structures. Based on a review the viaduct structural drawing, the nearest distances from the Activity 2a works to the northern pipeline (diameter 3000 mm) and southern pipeline (diameter 2100 mm) have been determined to be approximately 12 metres and 16 metres respectively. These distances are above the 4 metres minimum working distance as assessed in the *Noise and Vibration Management Sub-plan*. This would mean that the usage of a pile boring rig and jackhammer as part of Activity 2a works would likely achieve the 2.5 mm/s vibration limit at the Warragamba pipelines.

Nevertheless, attended vibration measurements must be undertaken at the commencement of pile boring and jackhammering to confirm vibration velocity levels are less than the vibration limit.

The vibration measurements will be conducted at the pipelines at the commencement of vibration intensive works and where the works are located at the maximum distances from the pipelines. Monitoring should continue until it has been demonstrated that the works at the nearest locations to the pipelines would remain below the vibration limit.

6. Mitigation and management

6.1 Standard construction noise mitigation measures

The CNVG outlines standard mitigation measures that should be incorporated by default in all construction projects. Those most relevant to the construction of the project are listed below.

- Restricting works to standard construction hours as far as practicable, considering safety and traffic management requirements
- Selecting quieter plant and equipment
- Maximising offset distances between receivers and noisy plant or activities
- Orientating plant and processes away from residences
- Regularly maintaining and monitoring plant and equipment to ensure that their noise emissions are not excessive
- Minimising the annoyance from reversing alarms by either fitting closed circuit monitors or non-tonal reversing alarms (“quackers”) on vehicles or deploying ‘spotters’ to oversee reversing movements. Sites should be designed to minimise or remove the need for plant to undertake reversing manoeuvres
- Reducing throttle settings and switching off equipment when it’s not being used.
- Screening noise-intensive processes such as jackhammering by the use of mobile screens Such screens can reduce noise levels by approximately 5-10 dB(A) where the line of sight to a receiver from the works is blocked.

Table 24 below details the reasonable or feasible mitigation measures proposed for each activity assessed in this DNVIS. Noting additional specific mitigation measures may be considered or altered where possible during the Out of Hours Permit process.

Table 24 - Reasonable or feasible standard mitigation measures

Mitigation Measure	Reasonable for Activities	Feasible for Activities	Comment
Restricting work to standard construction hours	1-16	1-16	Proposed activities are primarily to be undertaken during standard construction hours. Works outside of hours will be undertaken by exception when necessitated by the project and approved in accordance with the project EPL.
Selecting quieter plant and equipment	1-16	1-16	Plant and equipment utilised on the project is subject to an onboarding process to review equipment performance and routinely reviewed during inspection.
Maximising offset distances between receivers and noisy plant	1-16	1-16	Will be implemented where possible.
Orientating plant and processes away from residences	1-16	1-16	Will be implemented where possible.
Regularly maintaining and monitoring plant and equipment	1-16	1-16	Plant and equipment utilised on the project is subject to an onboarding process to review equipment performance and routinely reviewed during inspection.
Fitting non tonal reversing alarms	1-16	1-16	Plant and equipment utilised on the project is subject to an onboarding process, equipment utilised during OOHW to be fit with non-tonal alarms.

Mitigation Measure	Reasonable for Activities	Feasible for Activities	Comment
Switching off equipment when not in use	1-16	1-16	To be implemented and subject to routine inspection
Screening noise-intensive processes	1-16	2 and 3	While it is reasonable to consider the use of screening for all activities, in consideration of the transient nature, distance to receivers and dimensions of proposed plant and equipment, screening is not considered a feasible option to reduce the noise of the dominant noise source for the majority of the proposed activities.

6.2 Additional construction noise mitigation measures

Table 25 presents the additional mitigation measures that are recommended in the Sydney Metro *Construction Noise and Vibration Standard* that are based on the extent of NML exceedance. These predicted levels are shown by receiver for each construction stage in Appendix C – Detailed noise predictions.

Table 25 – Additional mitigation measures – Airborne construction noise

Time Period		Mitigation Measures Predicted $L_{Aeq(15\text{ minute})}$ noise level above NML			
		0 to 10 dB	10 to 20 dB	20 to 30 dB	> 30 dB
Approved construction hours	Mon-Fri (7.00 am - 6.00 pm)	-	LB	LB, M, SN	LB, M, SN
	Sat (8.00 am - 1.00 pm)				
	Sun/Pub Hol (Nil)				
OOHW (Day/Evening)	Mon-Fri (6.00 pm - 10.00 pm)	LB	LB, M	LB, M, SN, RO	LB, M, SN, IB, PC, RO
	Sat (1.00 pm - 10.00 pm)				
	Sun/Pub Hol (8.00 am - 6.00 pm)				
OOHW (Night)	Mon-Fri (10.00 pm - 7.00 am)	LB	LB, M, SN, RO	LB, M, SN, IB, PC, RO, AA	LB, M, SN, IB, PC, RO, AA
	Sat (10.00 pm - 8.00 am)				
	Sun/Pub Hol (6.00 pm - 7.00 am)				

Note: Phone calls (PC), Monitoring (M), Individual briefings (IB), alternative accommodation (AA), specific notification (SN), letterbox drop (LB), duration reduction (DR), Project specific respite offer (RO)

Based on the predicted construction noise levels, receivers requiring additional mitigation measures have been identified and are indicated (colour coded) in Appendix C. A summary of the number of receivers requiring additional mitigation measures by construction stage is presented in Table 26 below.

Table 26 – Additional mitigation measures by construction activity

Construction Activity		Number of Properties Identified (NCA 9 and 10)
Activity 1		
OOHW Daytime	LB	2
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	213
	LB, M	11
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	214
	LB, M, SN, RO	11
	LB, M, SN, IB, PC, RO, AA	-
Activity 2a		
OOHW Daytime	LB	-
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	69
	LB, M	1
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	69
	LB, M, SN, RO	1
	LB, M, SN, IB, PC, RO, AA	-
Activity 2b		
OOHW Daytime	LB	-
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	31
	LB, M	1
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	31
	LB, M, SN, RO	1
	LB, M, SN, IB, PC, RO, AA	-
Activity 3		
OOHW Daytime	LB	26
	LB, M	-

Construction Activity		Number of Properties Identified (NCA 9 and 10)
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	200
	LB, M	55
	LB, M, SN, RO	11
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	200
	LB, M, SN, RO	55
	LB, M, SN, IB, PC, RO, AA	11
Activity 4		
OOHW Night-time	LB	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO, AA	-
Activity 5		
OOHW Daytime	LB	17
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
Activity 6		
OOHW Daytime	LB	8
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	190
	LB, M	25
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	190
	LB, M, SN, RO	25
	LB, M, SN, IB, PC, RO, AA	-
Activity 7		
OOHW Daytime	LB	14
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	217
	LB, M	33
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	217

Construction Activity		Number of Properties Identified (NCA 9 and 10)
	LB, M, SN, RO	33
	LB, M, SN, IB, PC, RO, AA	1
Activity 8		
OOHW Daytime	LB	-
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	62
	LB, M	7
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	62
	LB, M, SN, RO	7
	LB, M, SN, IB, PC, RO, AA	-
Activity 9		
OOHW Daytime	LB	7
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	243
	LB, M	41
	LB, M, SN, RO	2
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	244
	LB, M, SN, RO	41
	LB, M, SN, IB, PC, RO, AA	2
Activity 10		
OOHW Daytime	LB	5
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
Activity 11		
OOHW Daytime	LB	1
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	127
	LB, M	5
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-

Construction Activity		Number of Properties Identified (NCA 9 and 10)
Activity 12		
OOHW Daytime	LB	-
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	77
	LB, M	4
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	77
	LB, M, SN, RO	4
	LB, M, SN, IB, PC, RO, AA	-
Activity 13		
OOHW Daytime	LB	3
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	193
	LB, M	5
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
Activity 14		
OOHW Daytime	LB	0
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	86
	LB, M	4
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	86
	LB, M, SN, RO	4
	LB, M, SN, IB, PC, RO, AA	-
Activity 15		
OOHW Daytime	LB	1
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	134
	LB, M	5

Construction Activity		Number of Properties Identified (NCA 9 and 10)
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	134
	LB, M, SN, RO	5
	LB, M, SN, IB, PC, RO, AA	-
Activity 16		
OOHW Daytime	LB	1
	LB, M	-
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Evening	LB	106
	LB, M	5
	LB, M, SN, RO	-
	LB, M, SN, IB, PC, RO	-
OOHW Night-time	LB	106
	LB, M, SN, RO	5
	LB, M, SN, IB, PC, RO, AA	-

Note: Phone calls (PC), Monitoring (M), Individual briefings (IB), alternative accommodation (AA), specific notification (SN), letterbox drop (LB), duration reduction (DR), Project specific respite offer (RO)

Receivers that have been assessed to be eligible for alternative accommodation are presented in Table 27 below.

Table 27 – Receivers that trigger additional mitigation measure AA for night works

Construction stage	NCA	Unique ID	Receiver address	Predicted Impact (LAeq)
Activity 3	NCA10	288	425A LUDDENHAM RD, LUDDENHAM NSW 2745	56
	NCA10	292	443-457 LUDDENHAM RD, LUDDENHAM NSW 2745	58
	NCA10	557	19 PORTRUSH CR, LUDDENHAM NSW 2745	57
	NCA10	561	21 PORTRUSH CR, LUDDENHAM NSW 2745	56
	NCA10	583	38 PORTRUSH CR, LUDDENHAM NSW 2745	57
	NCA10	588	42 PORTRUSH CR, LUDDENHAM NSW 2745	56
	NCA10	589	44 PORTRUSH CR, LUDDENHAM NSW 2745	57
	NCA10	591	46 PORTRUSH CR, LUDDENHAM NSW 2745	60
	NCA10	593	48 PORTRUSH CR, LUDDENHAM NSW 2745	59
	NCA10	600	52 PORTRUSH CR, LUDDENHAM NSW 2745	58
	NCA10	603	54 PORTRUSH CR, LUDDENHAM NSW 2745	56
Activity 7	NCA10	591	46 PORTRUSH CR, LUDDENHAM NSW 2745	56
Activity 9	NCA10	311	644-652 LUDDENHAM RD, LUDDENHAM NSW 2745	57

6.3 Construction vibration

The assessments of construction vibration found that the risk of impact at surrounding receivers was low due to the large intervening distances between the construction works and surrounding receivers. As such, no specific mitigation measures are proposed, barring the limitation of use of vibratory compaction equipment within two metres of underground services.

Attended vibration measurements will be undertaken at the Warragamba Pipelines. The vibration measurements will be conducted at the pipelines at the commencement of vibration intensive works and where the works are located at the maximum distances from the pipelines. Monitoring should continue until it has been demonstrated that the works at the nearest locations to the pipelines would remain below the vibration limit.

7. Conclusion

This DNVIS has been completed to support the implementation of the CPBUI Noise and Vibration Management Plan and Monitoring Program. Regarding construction noise, an assessment was carried out as per guidance presented in the Sydney Metro Construction Noise and Vibration Standard and the Construction Noise and Vibration Management Plan.

The assessment identified the activities would potentially exceed the day, evening and night-time NMLs at a number of receivers, which are presented in Table 18, Table 19 and Table 20. The significance of these exceedances was evaluated and additional mitigation measures as presented in Table 26 should be implemented if these activities are undertaken outside of standard construction hours.

A number of exceedances of the night-time NMLs have been predicted for Activities 3, 7 and 9 and the receivers that could potentially require alternative accommodation in accordance with the Sydney Metro CNVS is shown in Table 27. While some receivers have been identified as requiring alternate accommodation, the predicted exceedances of the sleep disturbance criteria for the assessed activities as presented in Table 21 and Appendix D – Sleep disturbance, are considered unlikely to awaken people from sleep.

All activities during the daytime, evening and night-time periods have been predicted to not exceed the higher noise affected criteria of 75dB.

Due to the distance between construction works and receivers, ground-borne noise impacts are expected to be negligible in comparison to airborne noise impacts. For this reason, ground-borne noise is not anticipated to be the controlling factor for these proposed works and therefore further assessment is not warranted. As identified in the EIS, the application of standard mitigation measures for the control of airborne noise emissions and vibration is expected to adequately address ground-borne noise.

The assessments of construction vibration found that the risk of impact at surrounding receivers was low due to the large intervening distances between the construction works and surrounding receivers. As such, no specific mitigation measures are proposed, barring the limitation of use of vibratory compaction equipment within two metres of underground services.

Construction vibration is also assessed to achieve compliance with German Standard DIN 4150-3:2016 (2.5 mm/s PPV). Nevertheless, attended vibration measurements will be undertaken at the commencement of pile boring and jackhammering until it has been demonstrated that the works at the nearest locations to the pipelines would remain below the vibration limit.

Appendix A – Site layout and works areas

PROJECT NUMBER	S220189
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DATE ISSUED	March 2024



Legend

- Noise Catchment Areas
- Warragamba Pipeline
- Proposed Alignment
- Activities 1, 2a and 2b
- Activity 3
- Activities 4, 5, 6, 7 and 8
- Earthworks
- Activities 9 and 10
- Viaduct Alignment
- Activities 11, 12, 13, 14, 15 and 16
- Receivers**
- Commercial
- Industrial
- Residential



Datum GDA2020, Projection MGA ZONE 56

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Appendix B – Noise contours

Sydney Metro SCAW
OOHW Activity 1
Day, Evening and Night Noise
Contours










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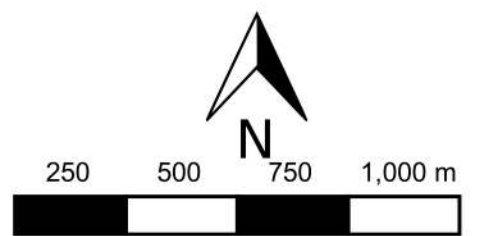
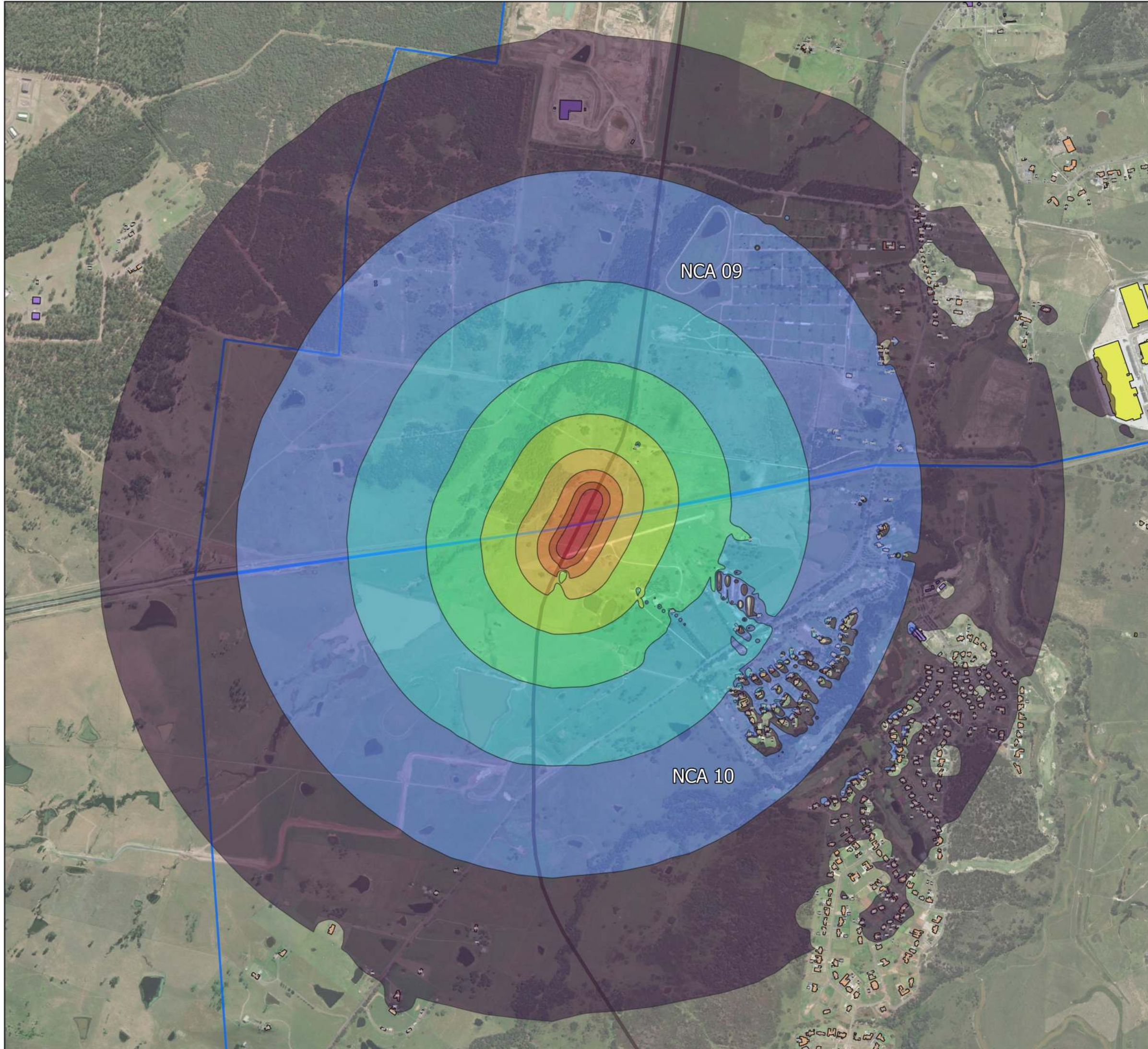
PROJECT NUMBER	S220189
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DATE ISSUED	March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56

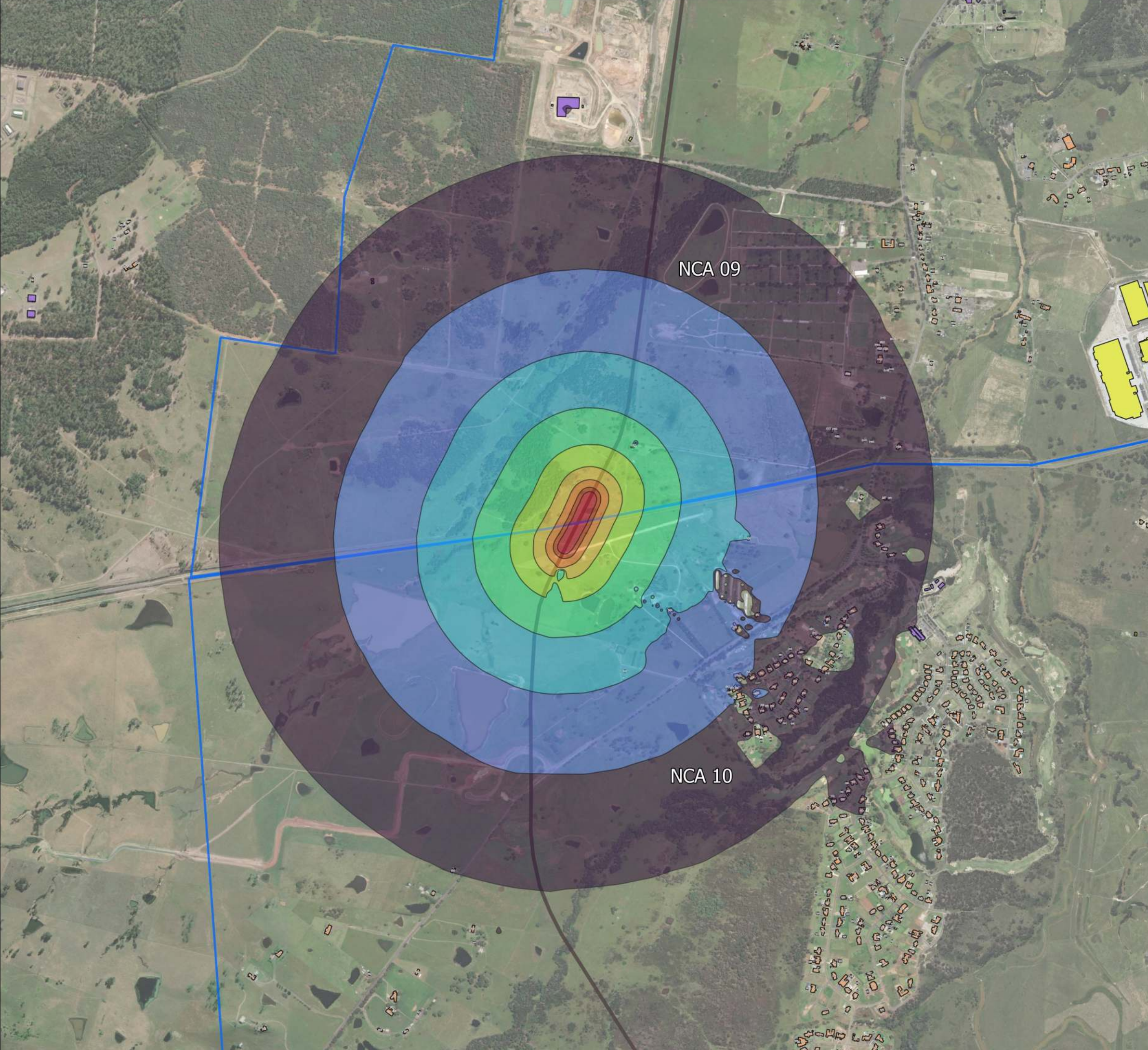
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Sydney Metro SCAW
OOHW Activity 2a
Day, Evening and Night Noise
Contours

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Legend

- Noise Catchment Areas
- Proposed Alignment

Predicted noise level, Leq dB(A)

- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- > 75



250 500 750 1,000 m



Datum GDA2020, Projection MGA ZONE 56

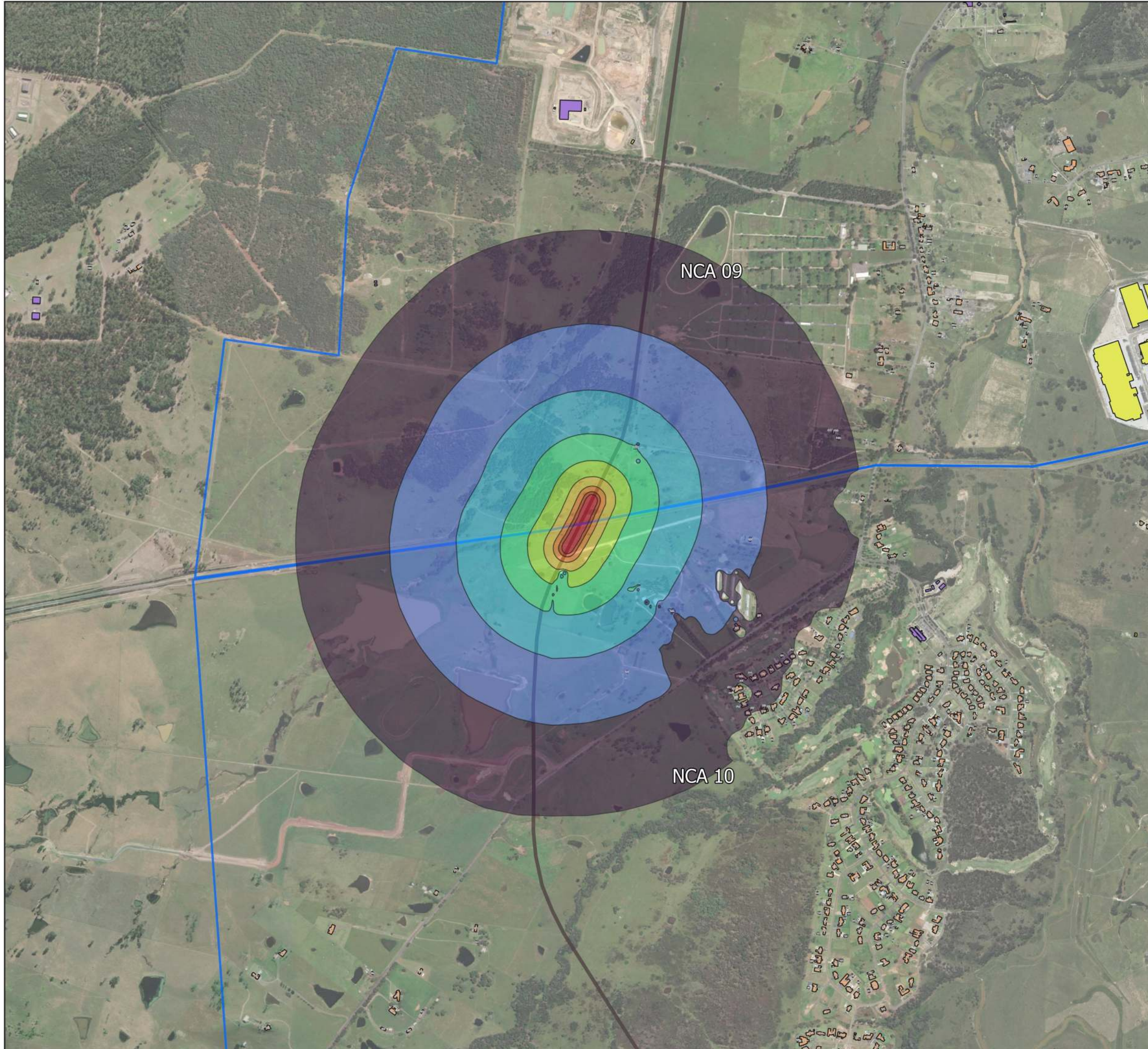
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Sydney Metro SCAW
OOHW Activity 2b
Day, Evening and Night Noise
Contours

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PROJECT NUMBER	S220189
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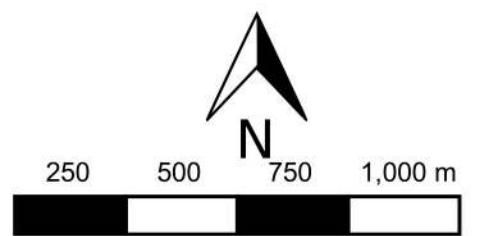


Legend

- Noise Catchment Areas
- Proposed Alignment

Predicted noise level, Leq dB(A)

- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- > 75



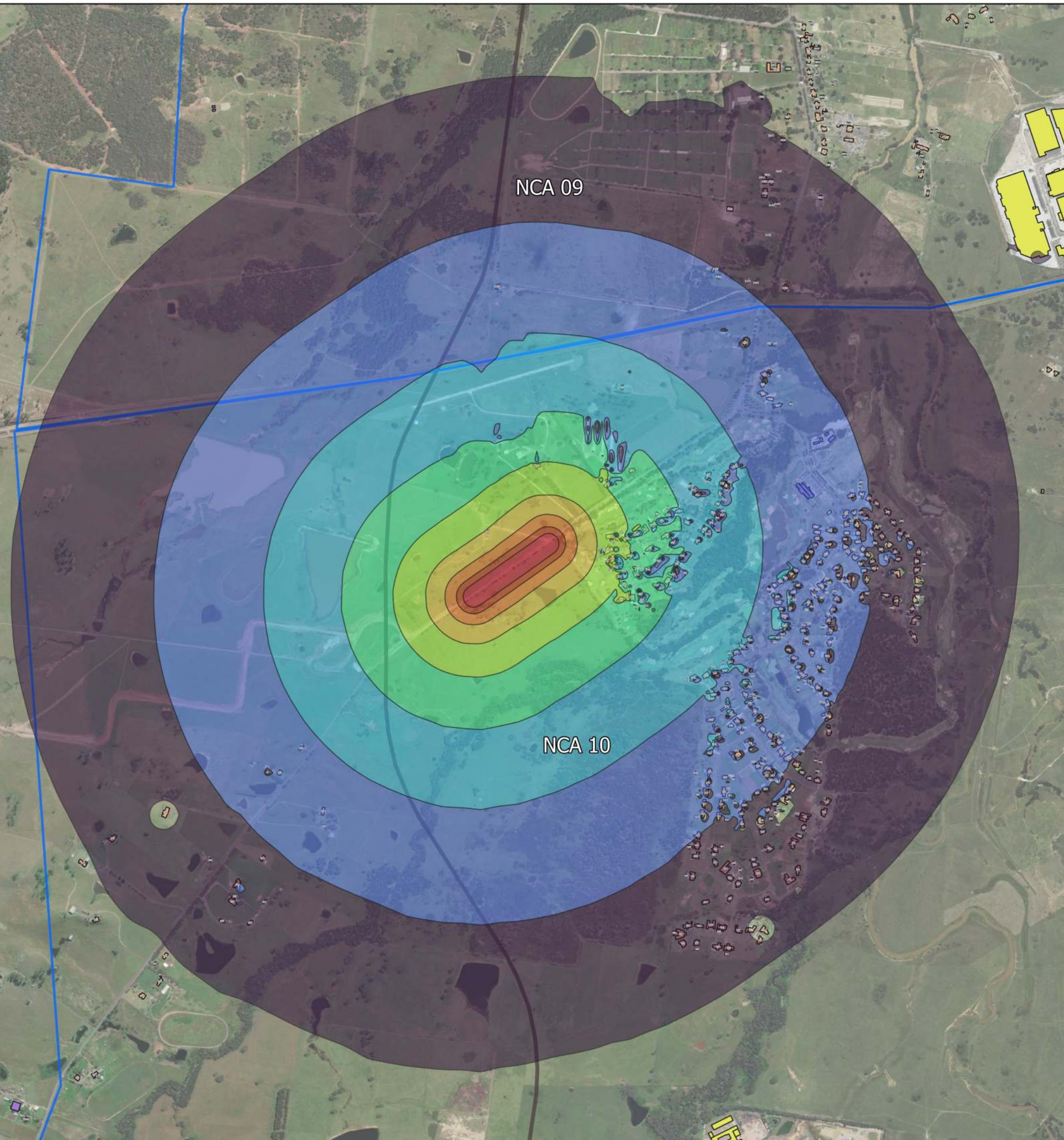
Datum GDA2020, Projection MGA ZONE 56

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Sydney Metro SCAW
OOHW Activity 3
Day Noise Contours

PROJECT NUMBER	S220189
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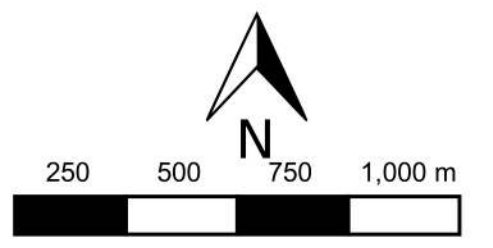


Legend

- Noise Catchment Areas
- Proposed Alignment

Predicted noise level, Leq dB(A)

- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- > 75

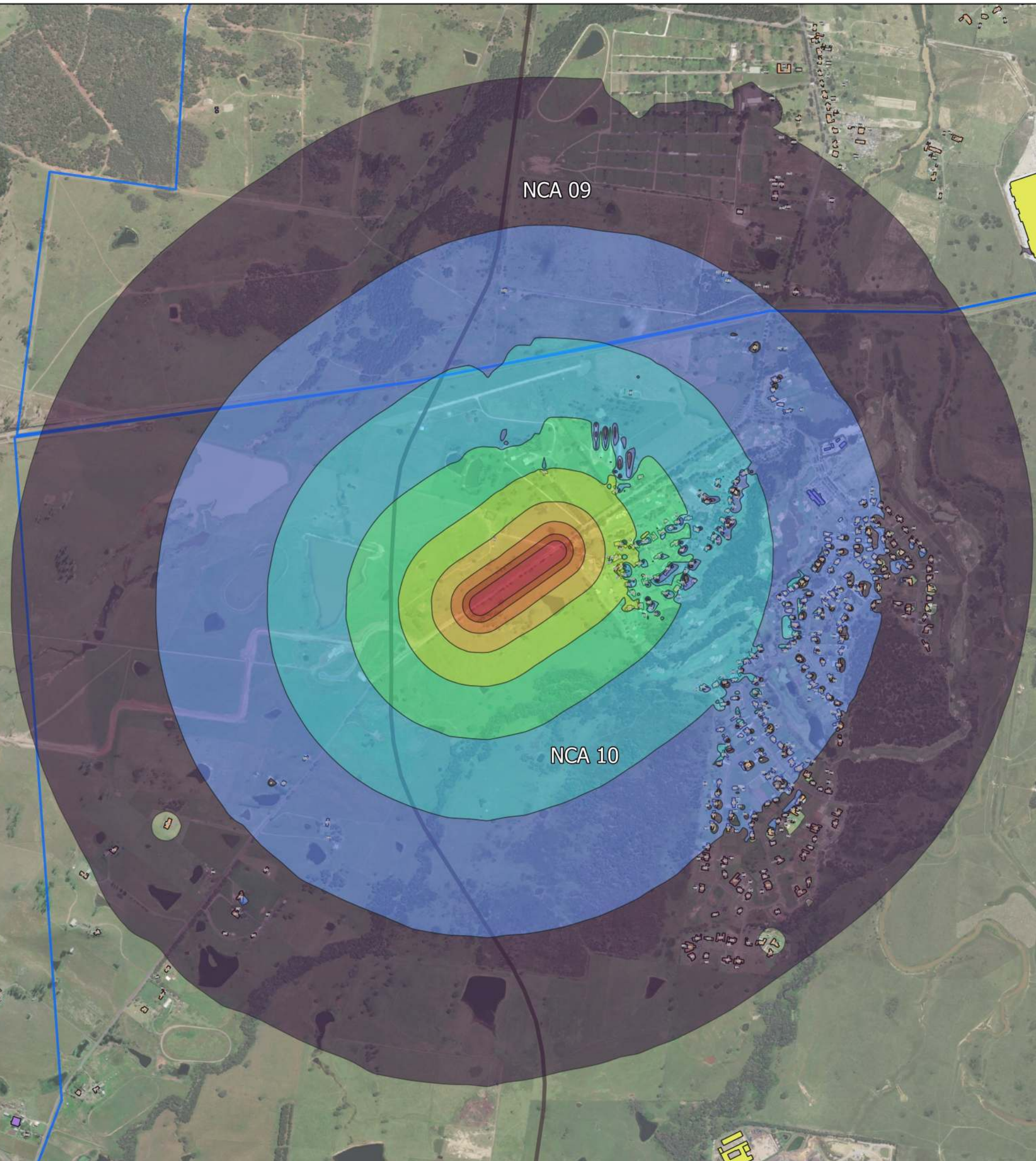


Datum GDA2020, Projection MGA ZONE 56



Sydney Metro SCAW
OOHW Activity 3
Evening and Night Noise
Contours

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DATE ISSUED	March 2024

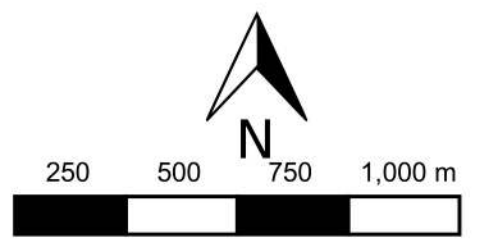


Legend

- Noise Catchment Areas
- Proposed Alignment

Predicted noise level, Leq dB(A)

- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- > 75





Datum GDA2020, Projection MGA ZONE 56










Sydney Metro SCAW
OOHW Activity 4
Night Noise Contours

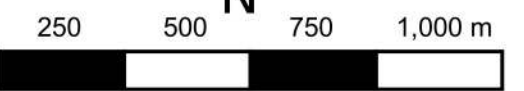
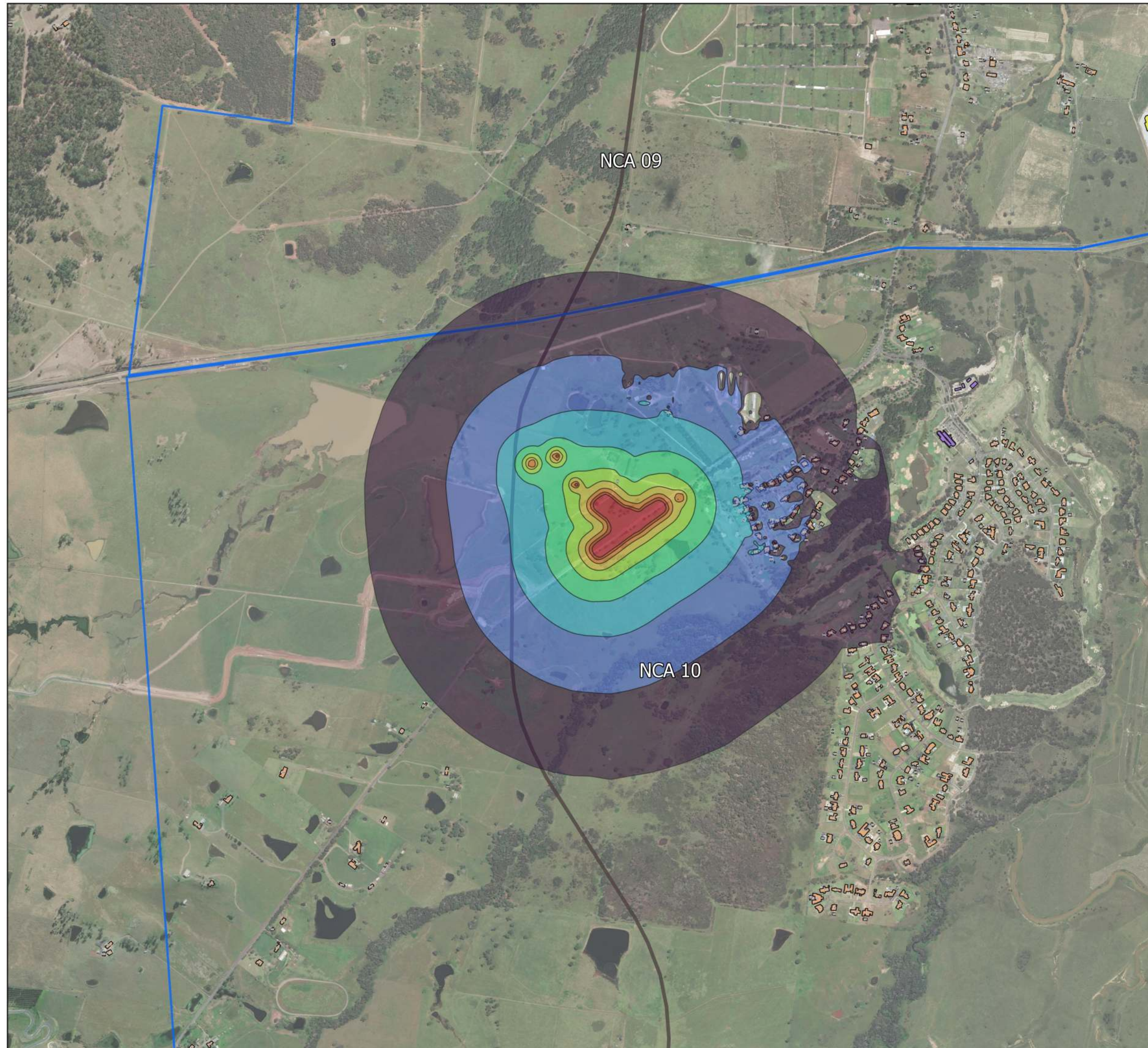
PROJECT NUMBER S220189
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DATE ISSUED March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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Sydney Metro SCAW
OOHW Activity 5
Day Noise Contours






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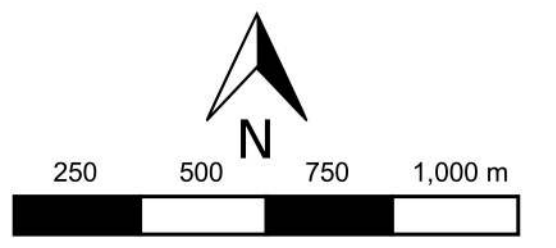
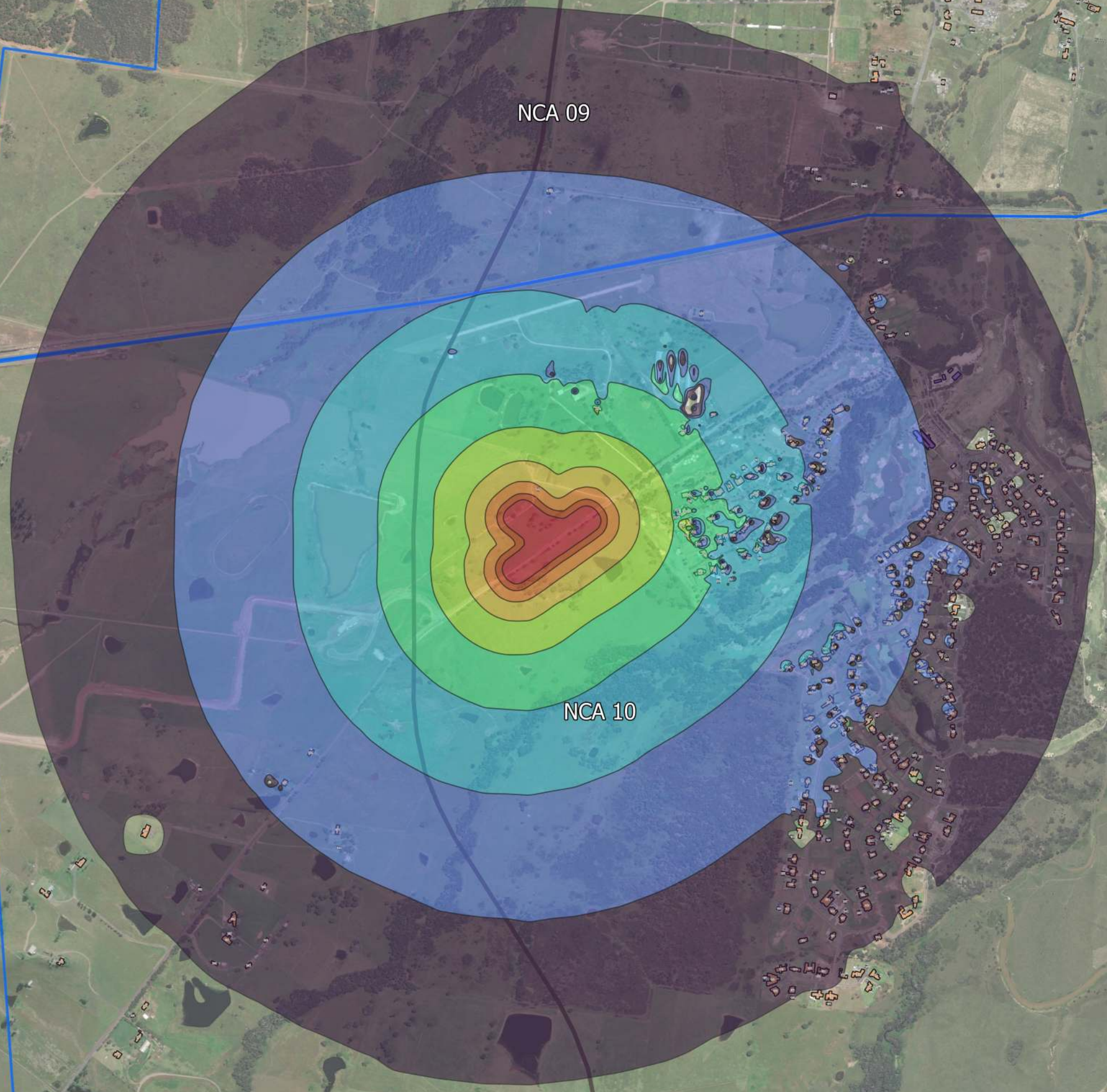
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DATE ISSUED	March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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Sydney Metro SCAW
OOHW Activity 6
Day Noise Contours










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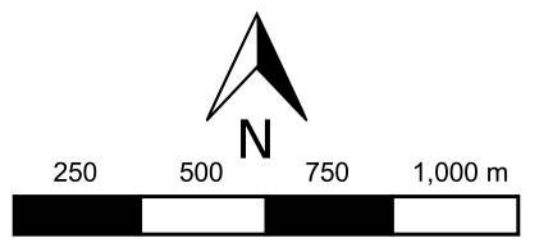
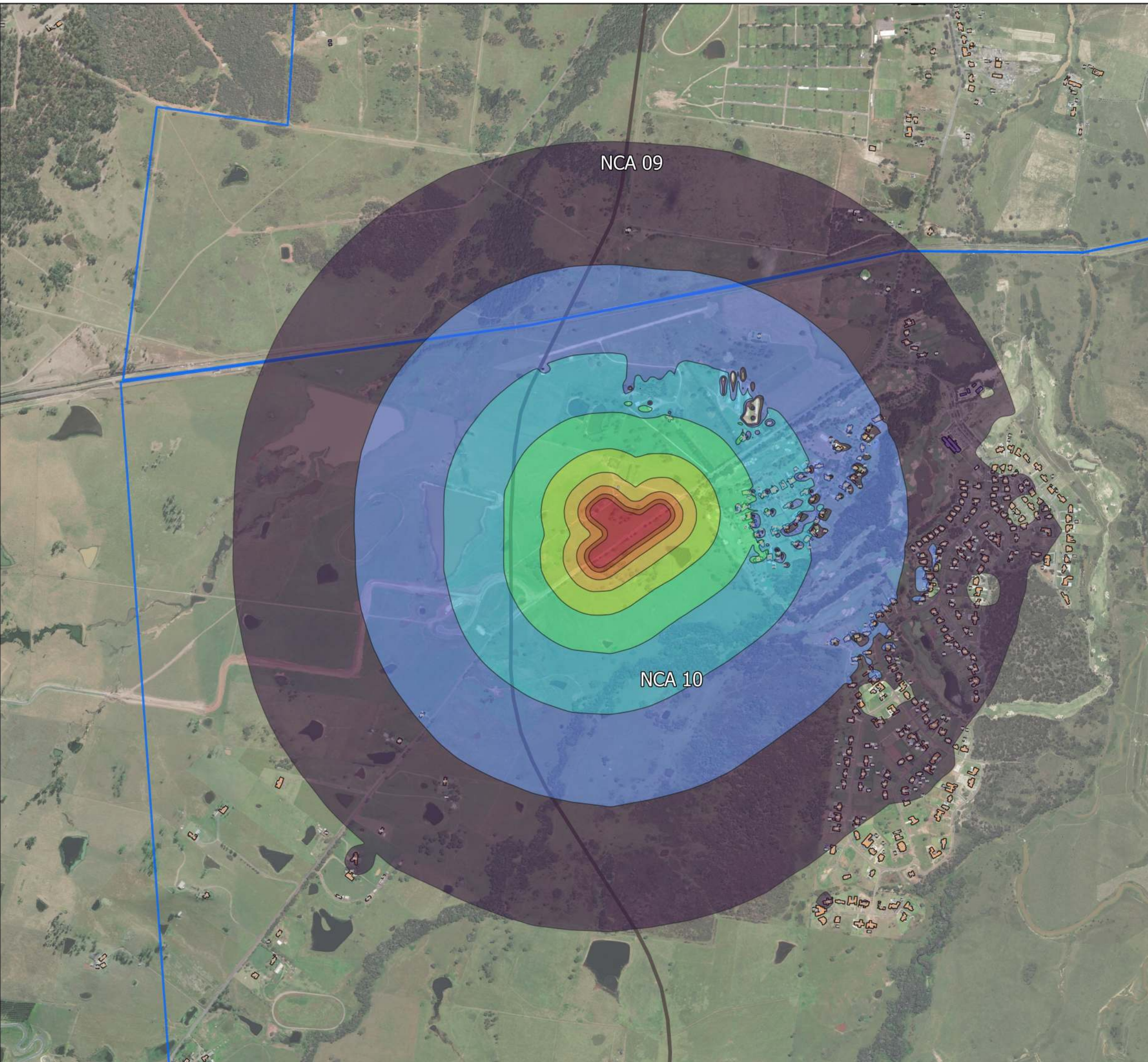
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DATE ISSUED	March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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


Sydney Metro SCAW
OOHW Activity 6
Evening and Night Noise
Contours

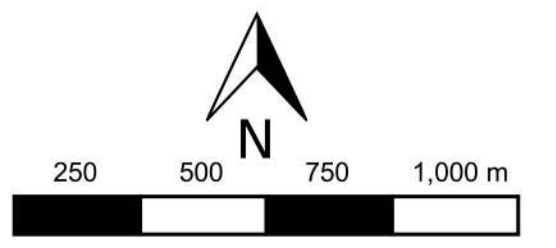
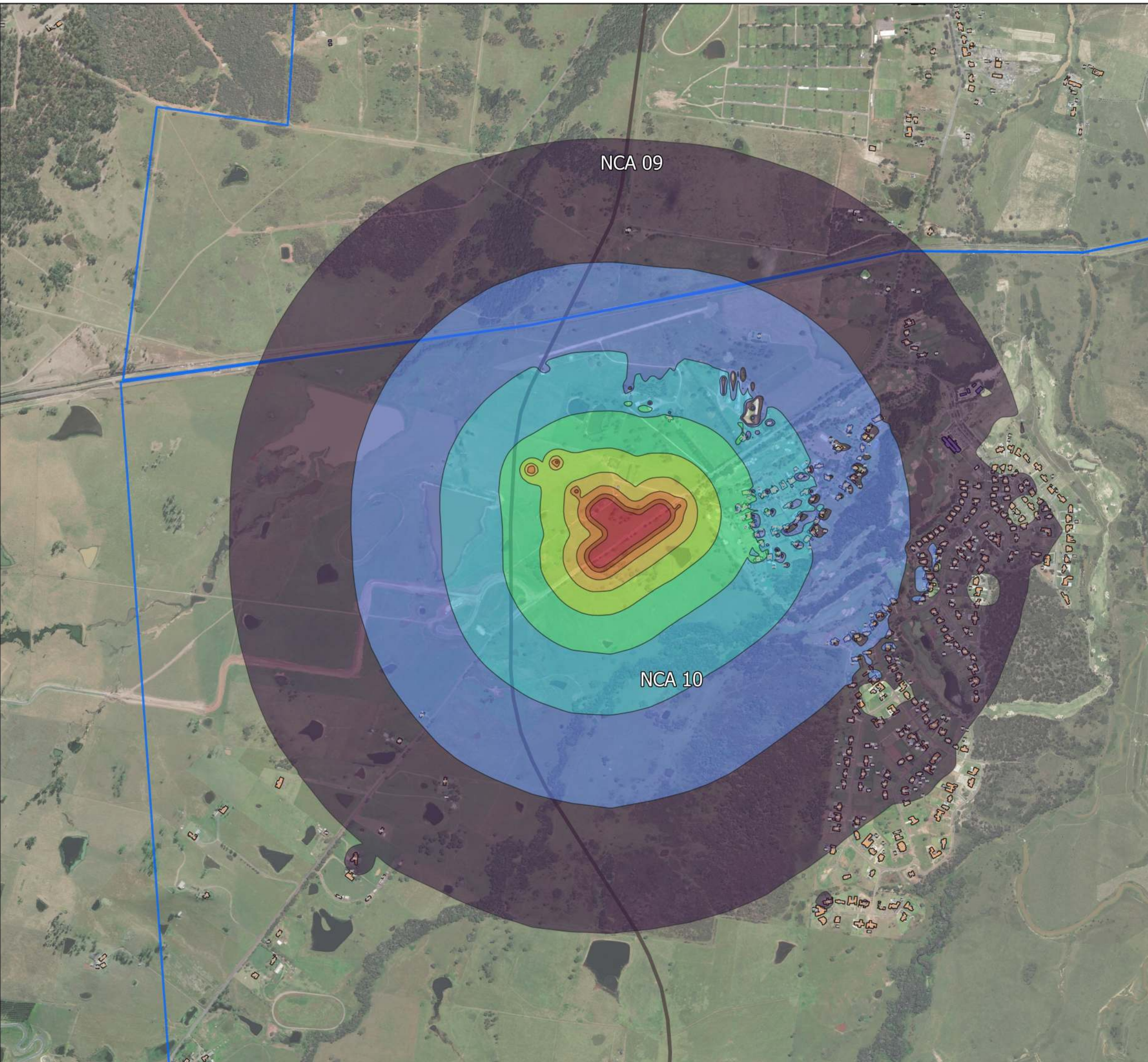
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



Sydney Metro SCAW
OOHW Activity 7
Day Noise Contours








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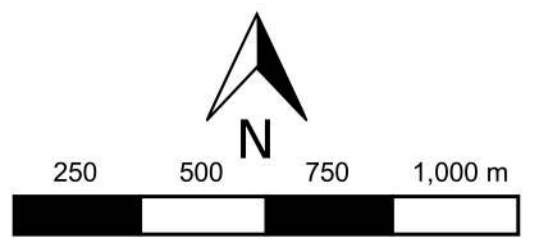
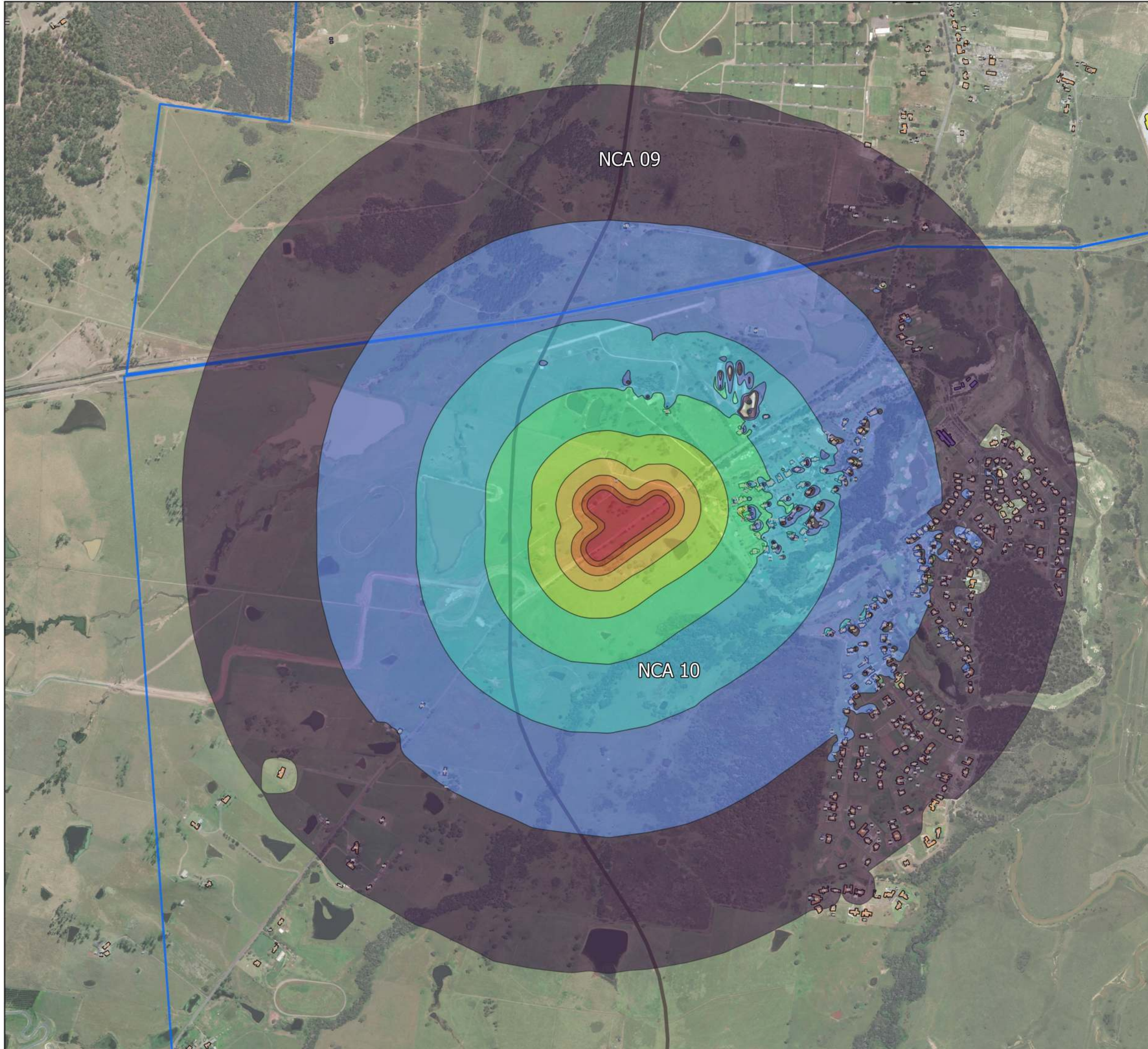
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DATE ISSUED	March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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Sydney Metro SCAW
OOHW Activity 7
Evening and Night Noise
Contours







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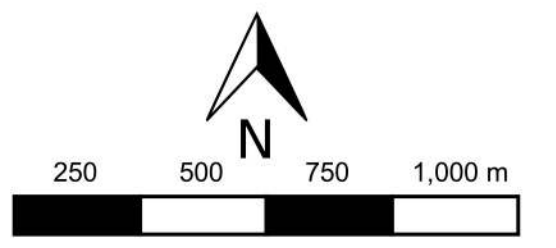
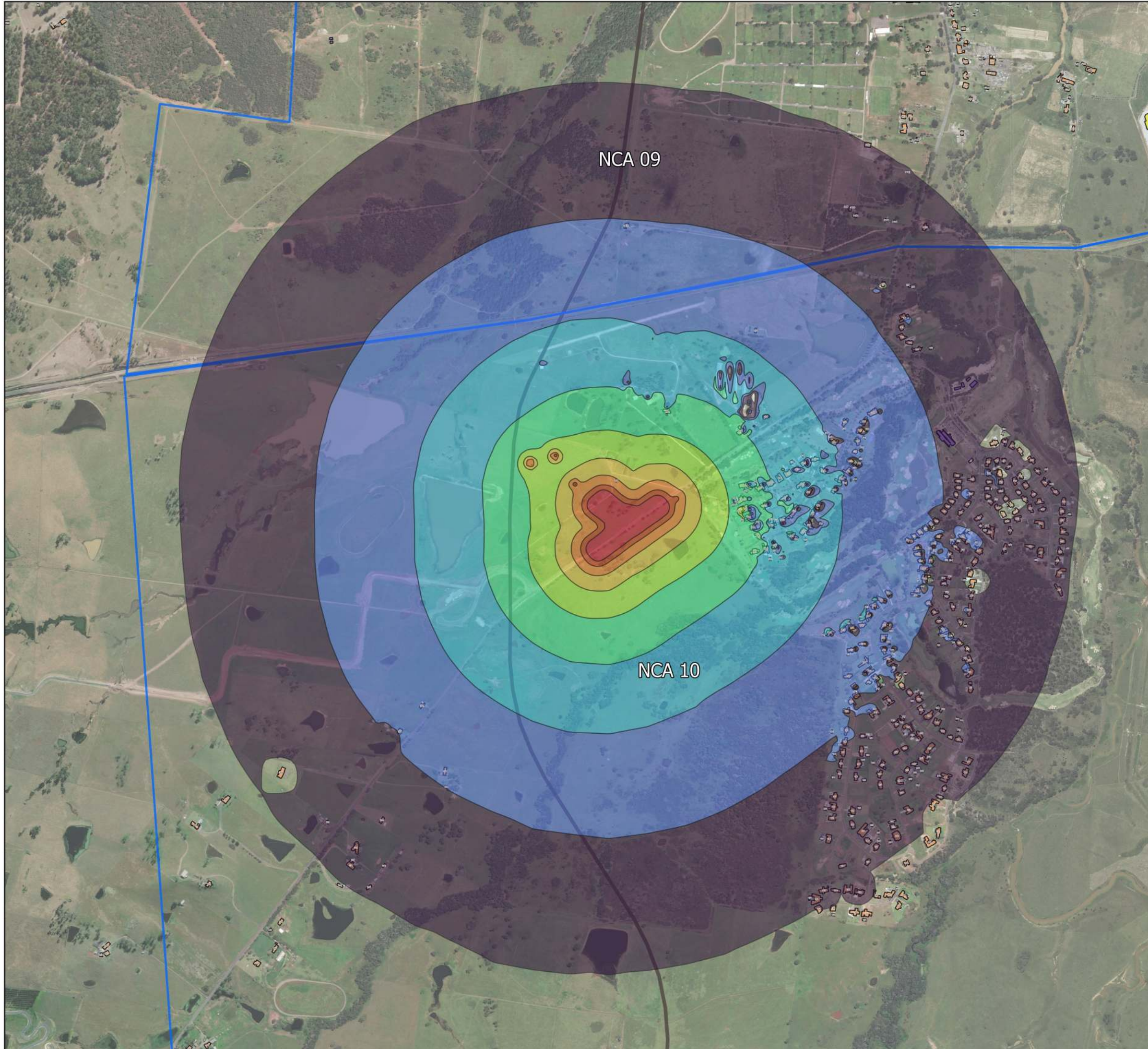
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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Sydney Metro SCAW
OOHW Activity 8
Day Noise Contours








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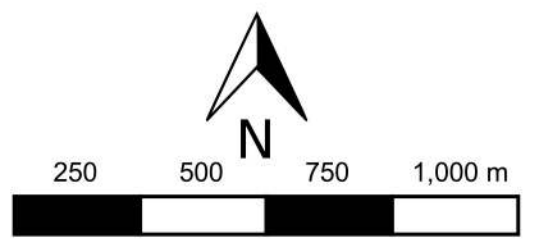
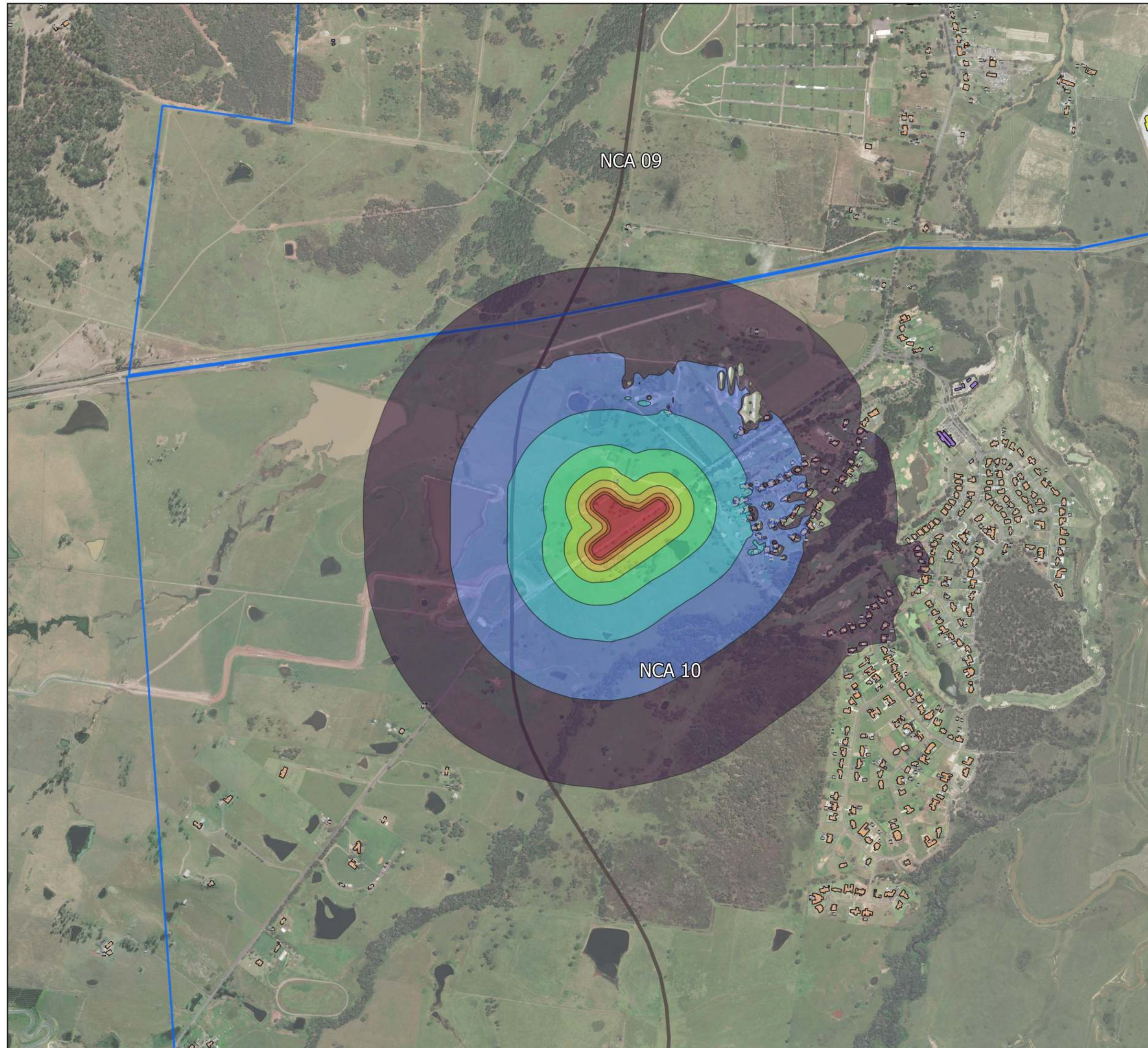
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



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



Sydney Metro SCAW
OOHW Activity 8
Evening and Night Noise
Contours

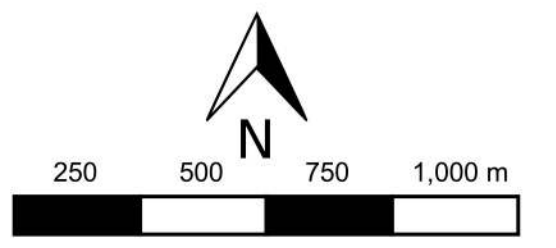
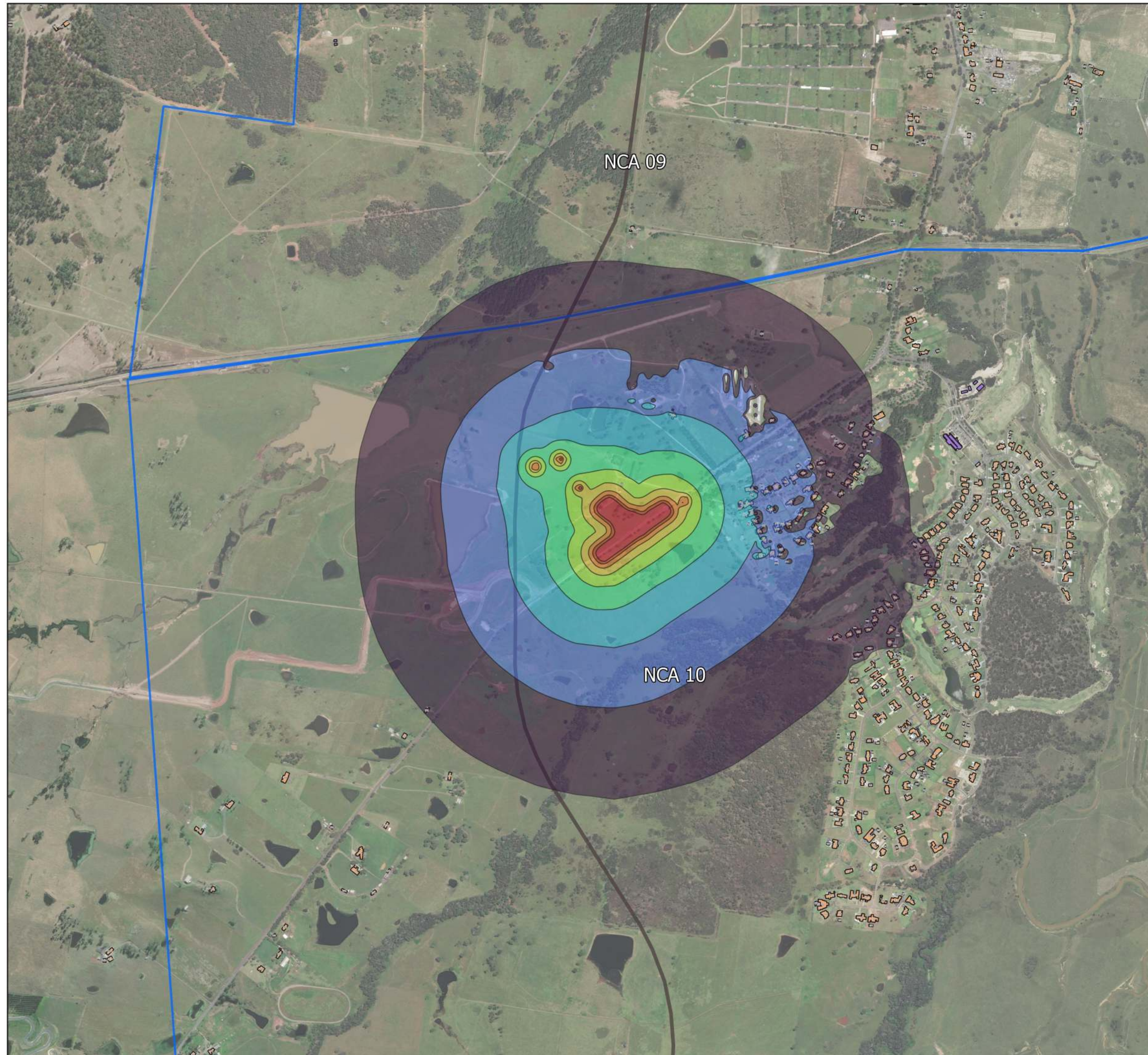
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75





Datum GDA2020, Projection MGA ZONE 56







Sydney Metro SCAW
OOHW Activity 9
Day Noise Contours

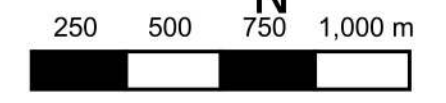
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DATE ISSUED March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

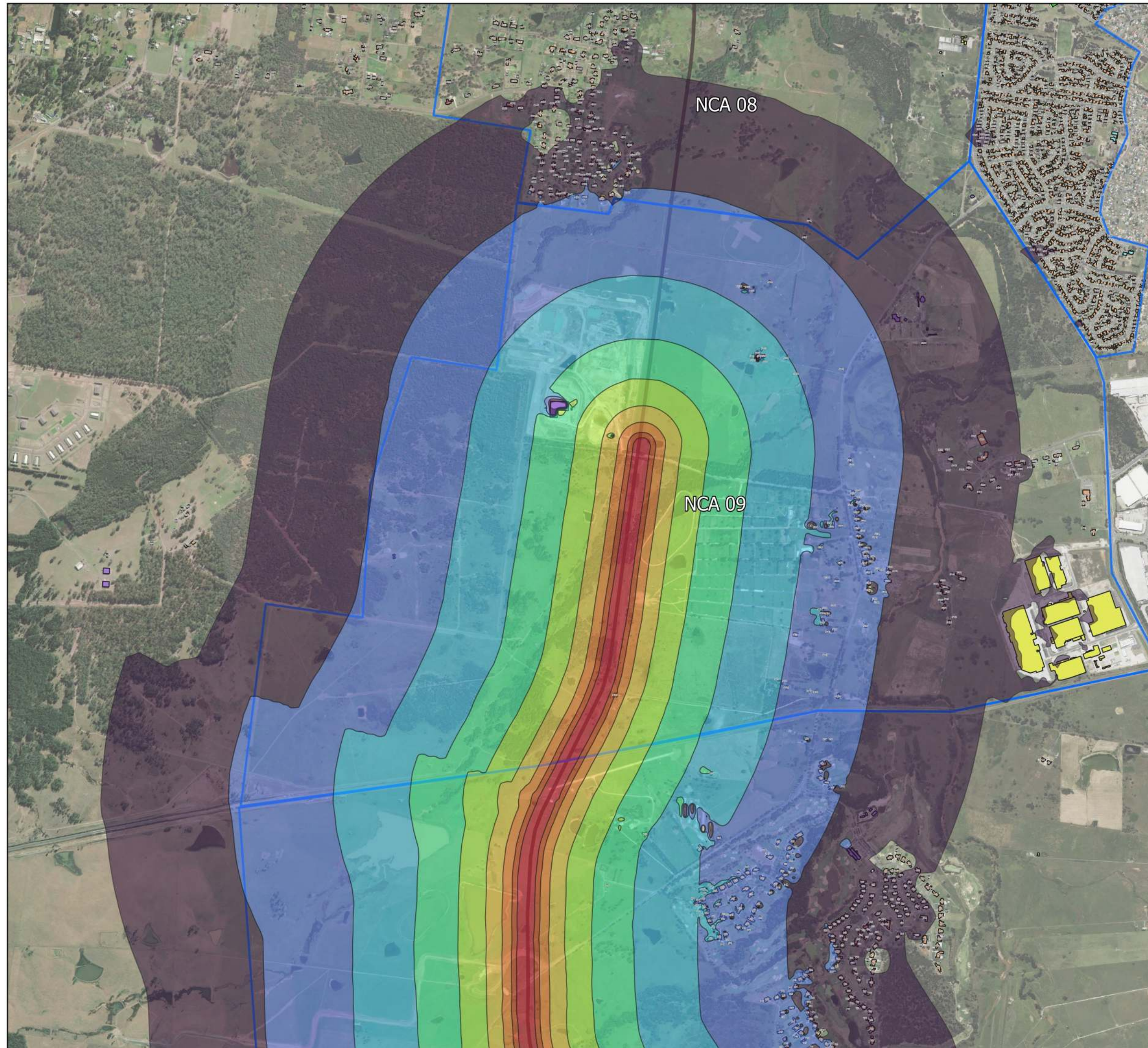
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-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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Sydney Metro SCAW
OOHW Activity 9
Day Noise Contours










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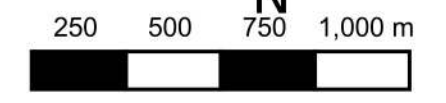
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

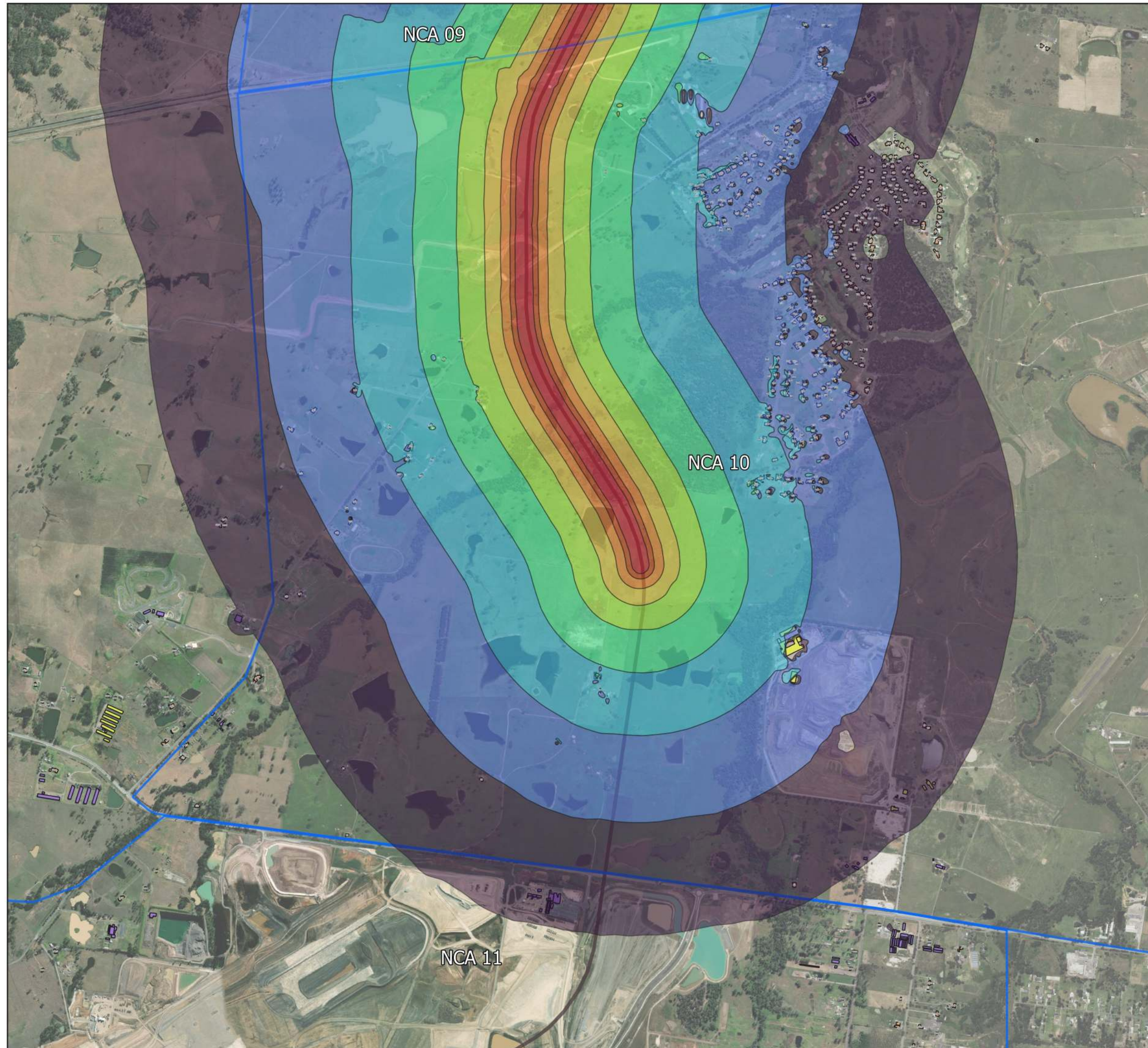
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-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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


Sydney Metro SCAW
OOHW Activity 9
Evening and Night Noise
Contours

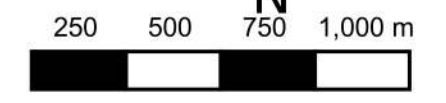
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

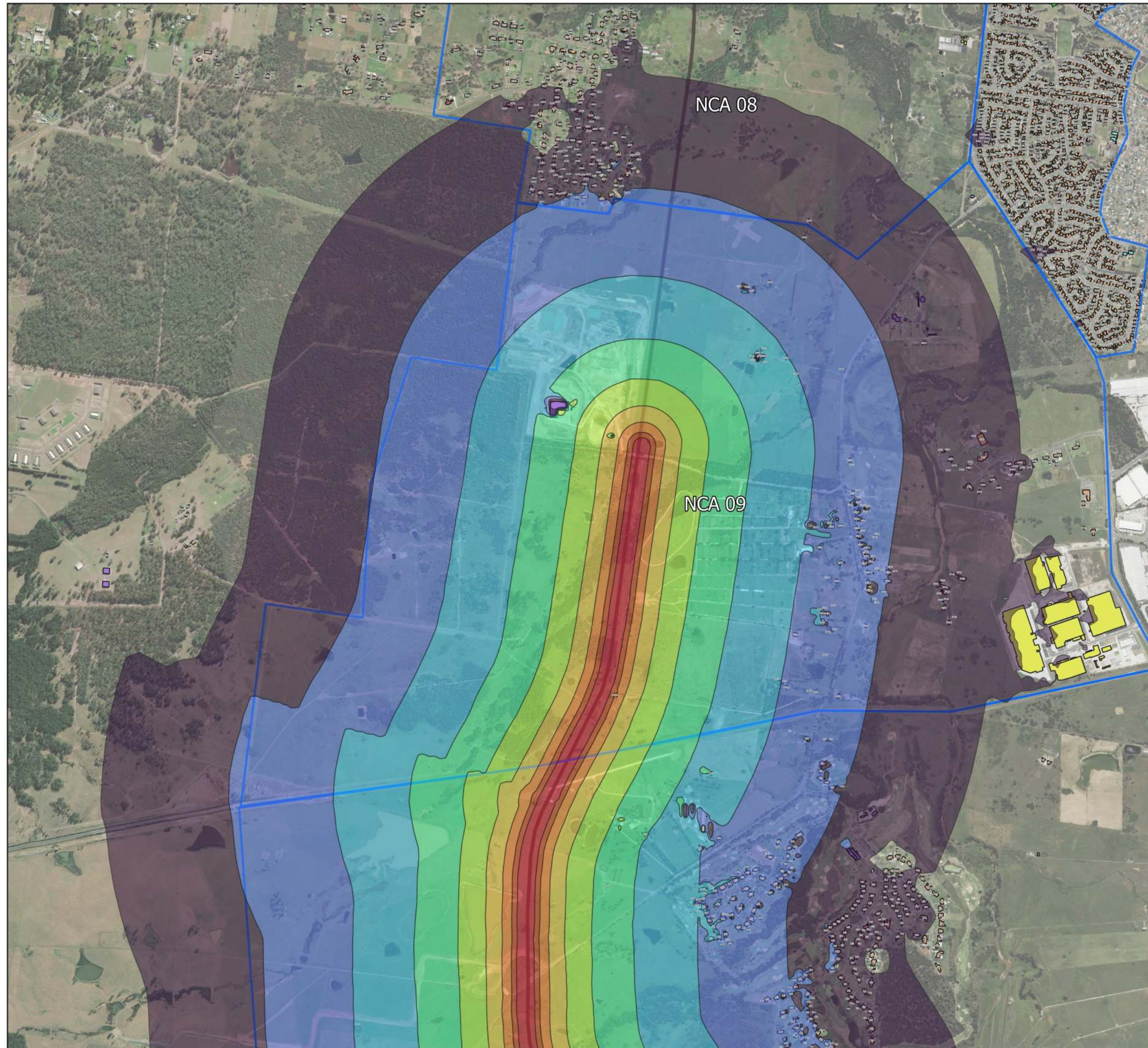
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-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75

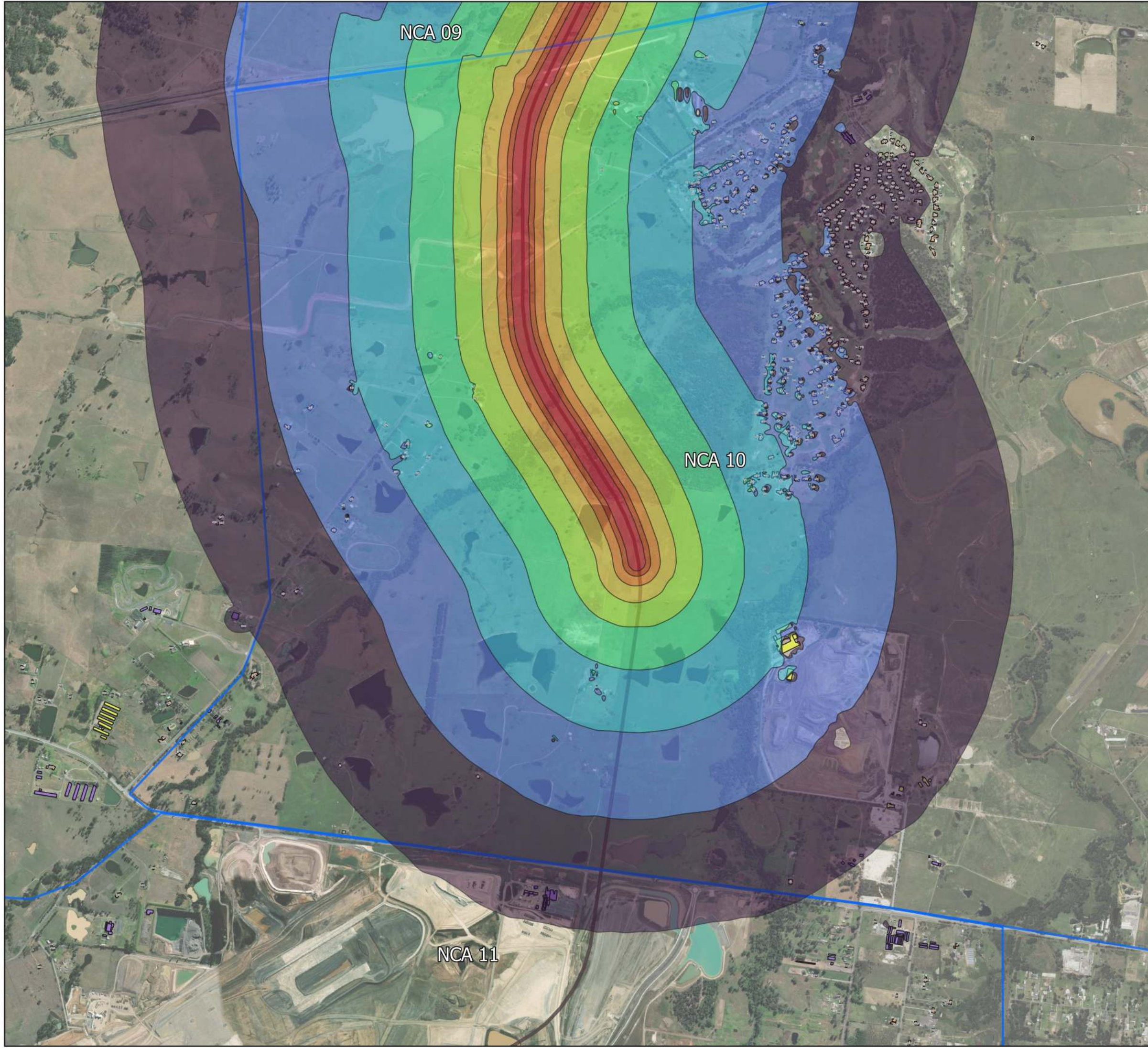


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








Sydney Metro SCAW
OOHW Activity 9
Evening and Night Noise
Contours

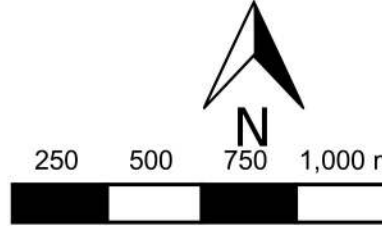
PROJECT NUMBER	S220189
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DATE ISSUED	March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



Sydney Metro SCAW OOHW Activity 10 Day Noise Contours










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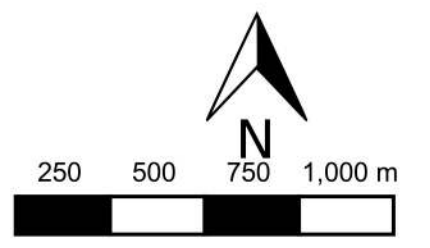
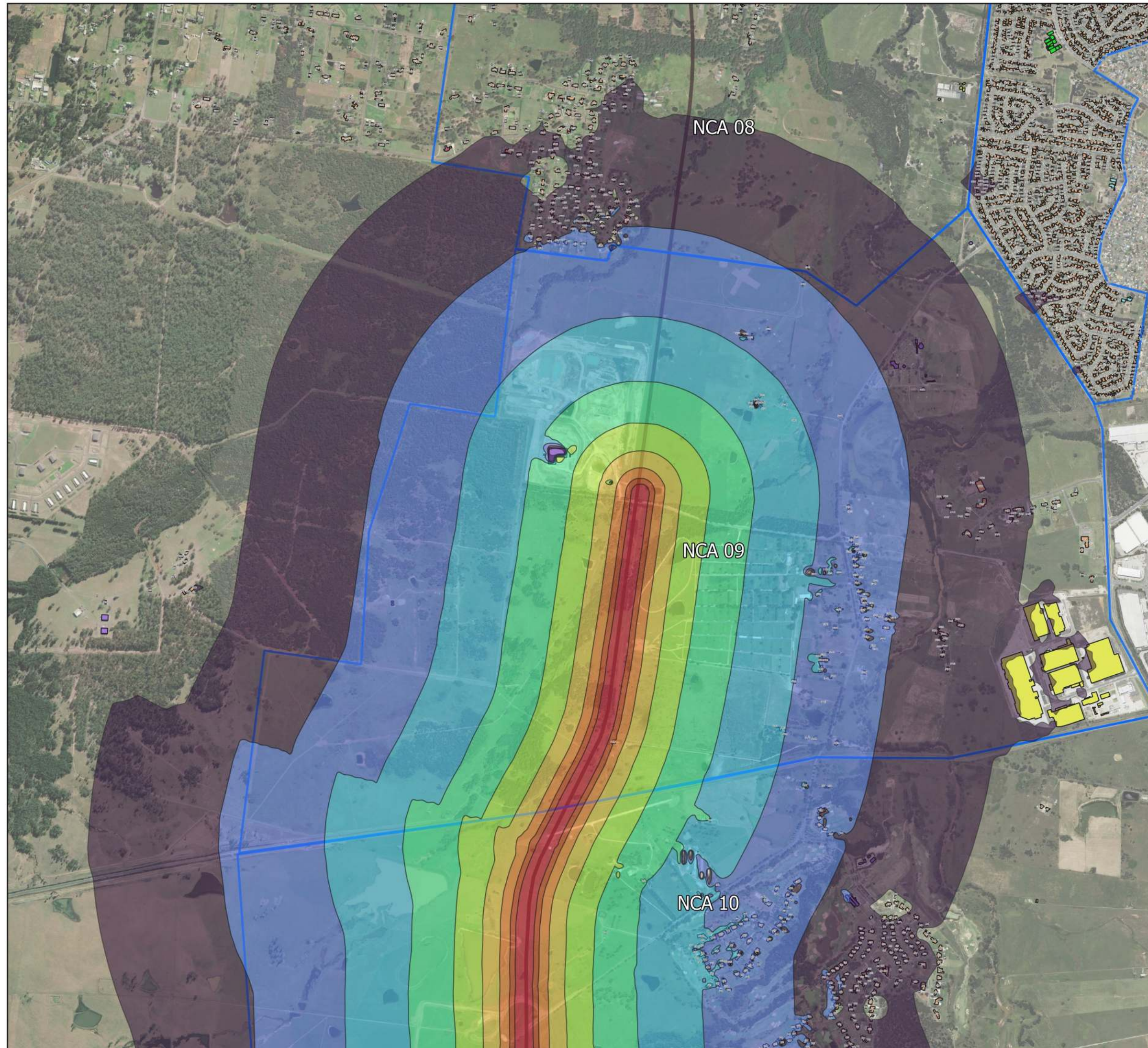
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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




Sydney Metro SCAW
OOHW Activity 10
Day Noise Contours

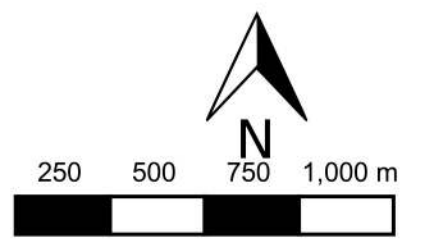
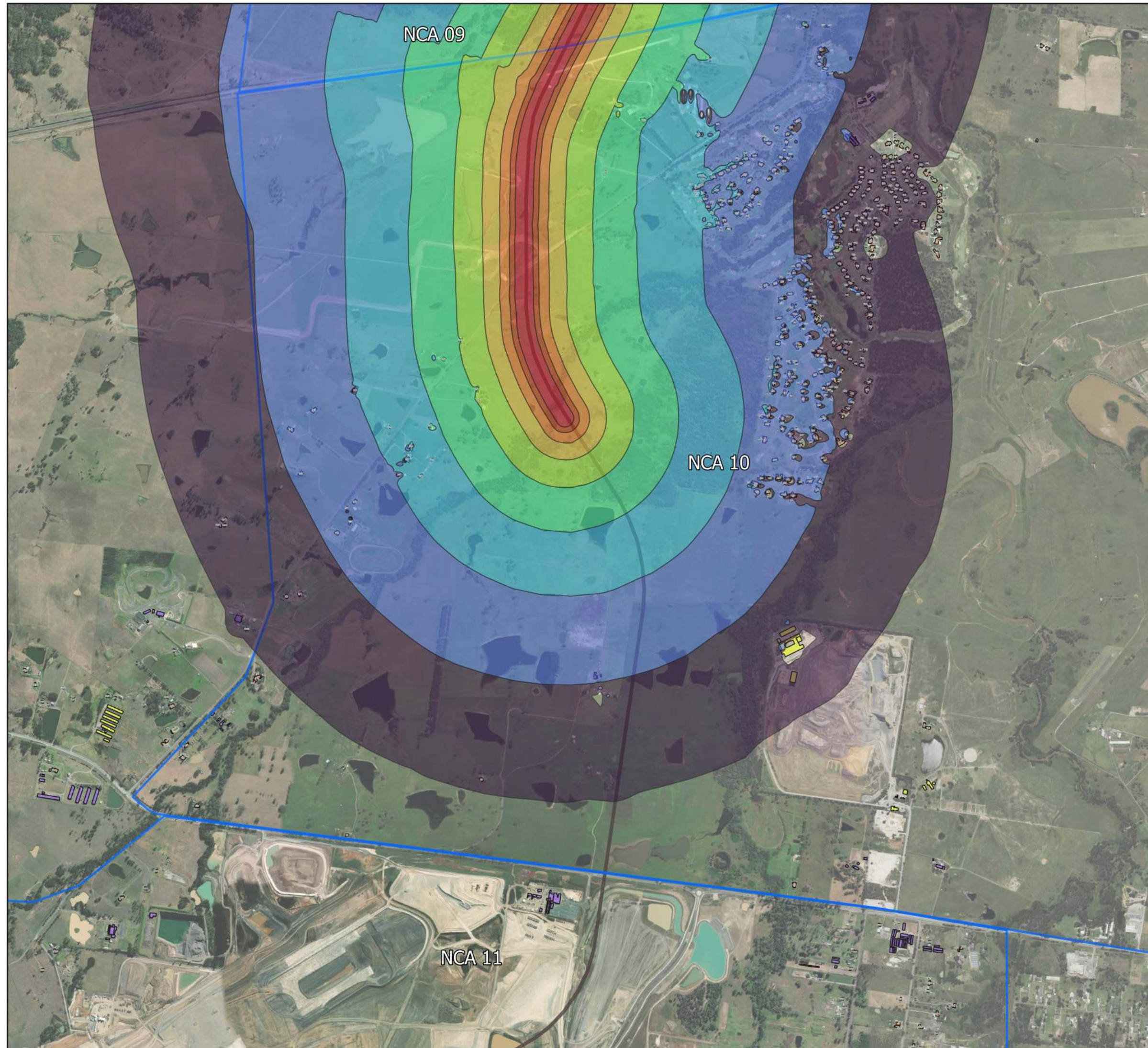
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56





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




Sydney Metro SCAW
OOHW Activity 11
Day Noise Contours

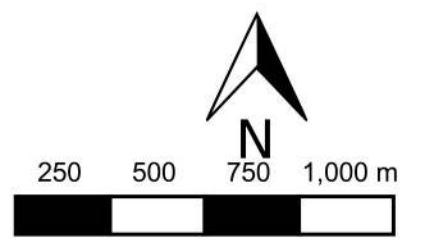
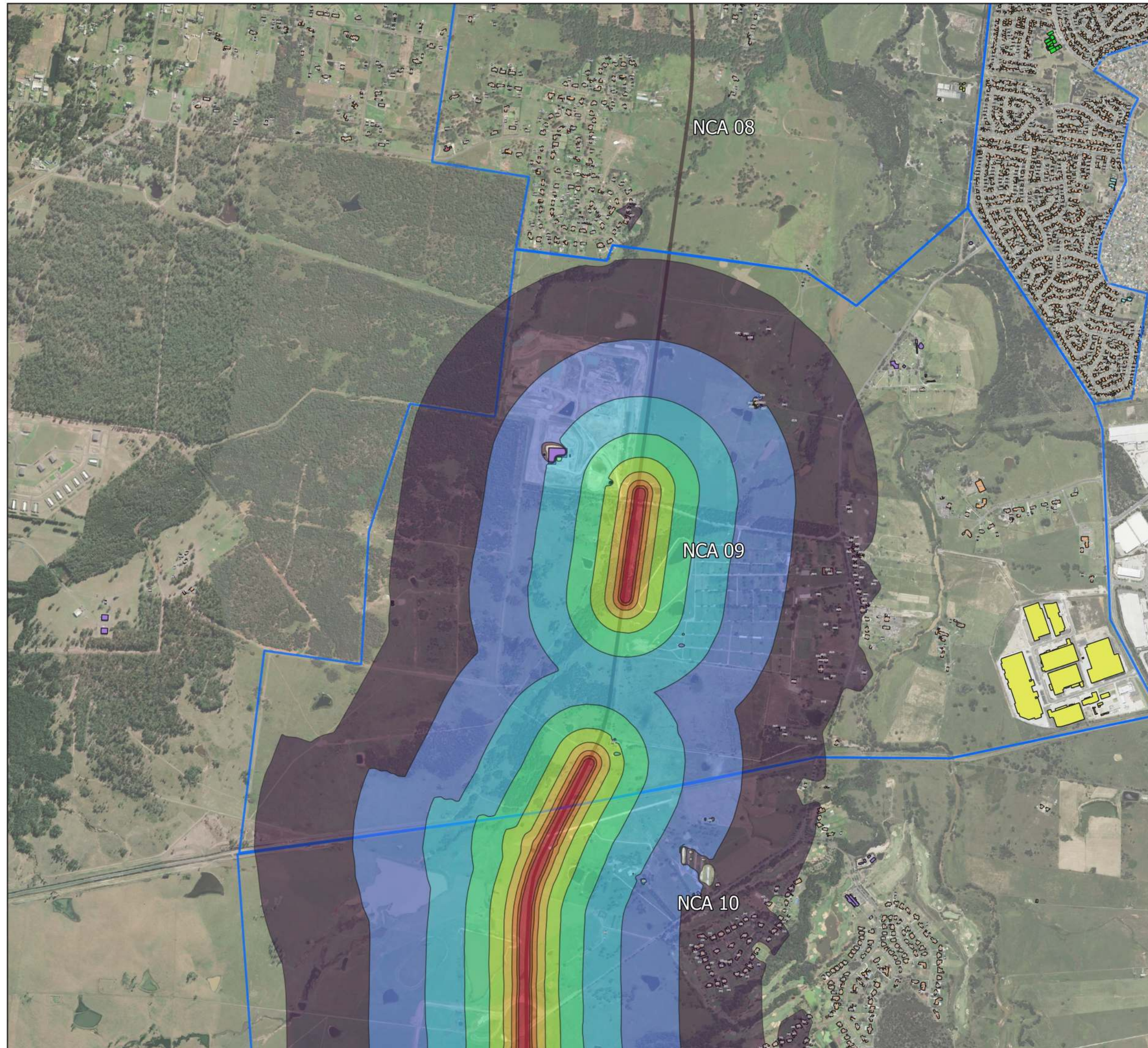
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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Sydney Metro SCAW
OOHW Activity 11
Day Noise Contours










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PROJECT NUMBER	S220189
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

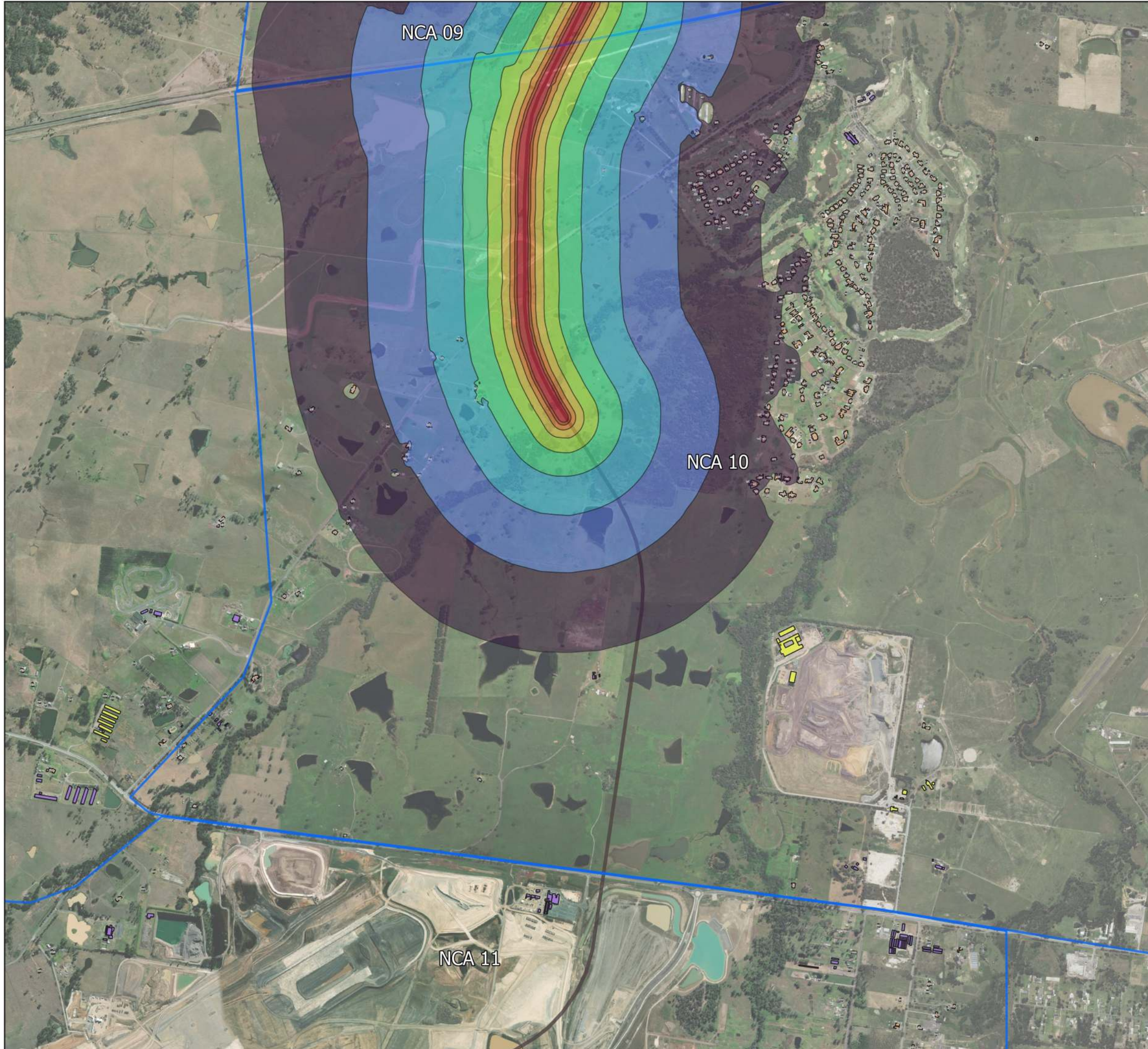
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-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56

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Sydney Metro SCAW
OOHW Activity 11
Evening Noise Contours










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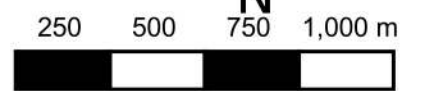
PROJECT NUMBER S220189
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

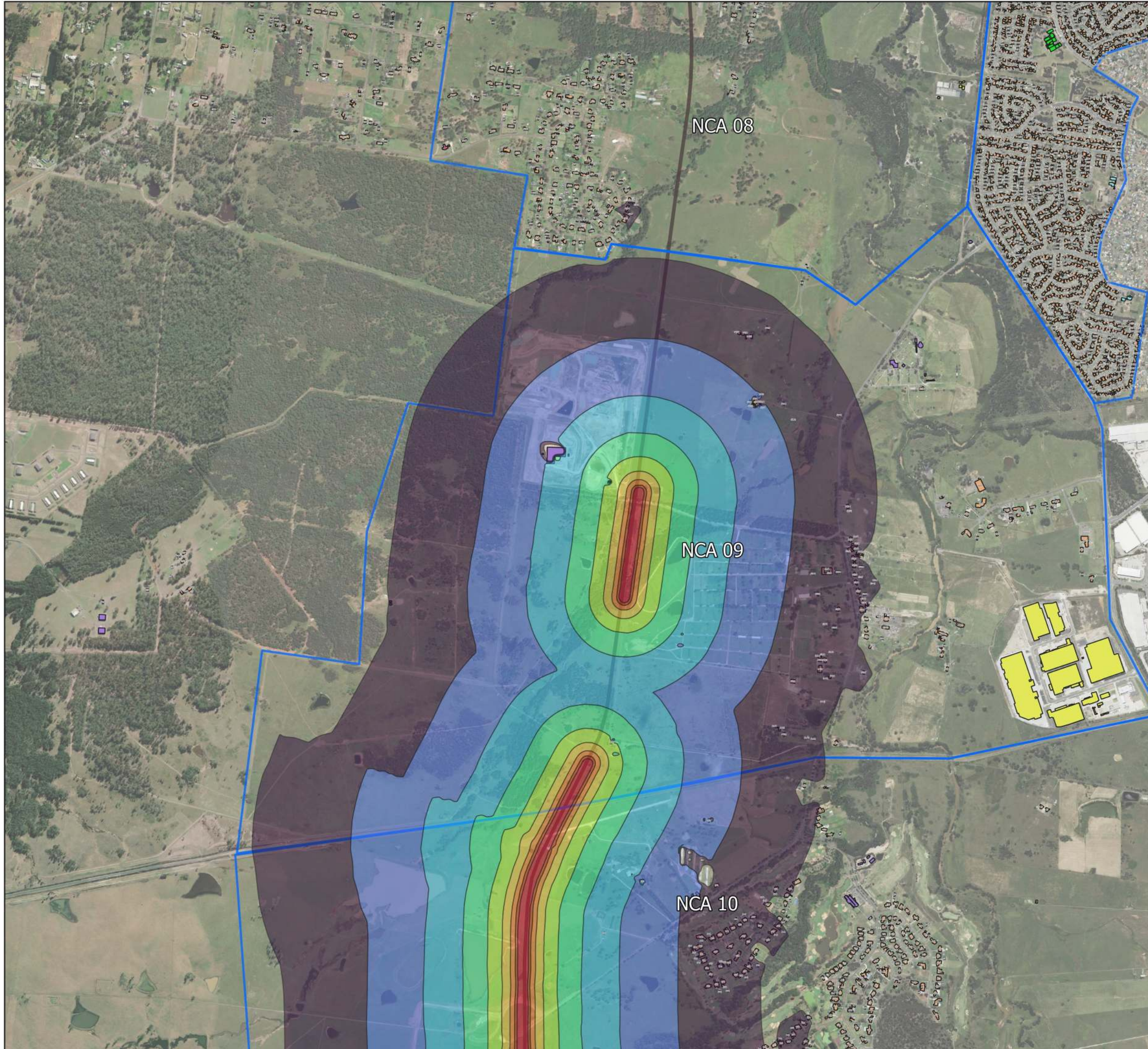
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-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56

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






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-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

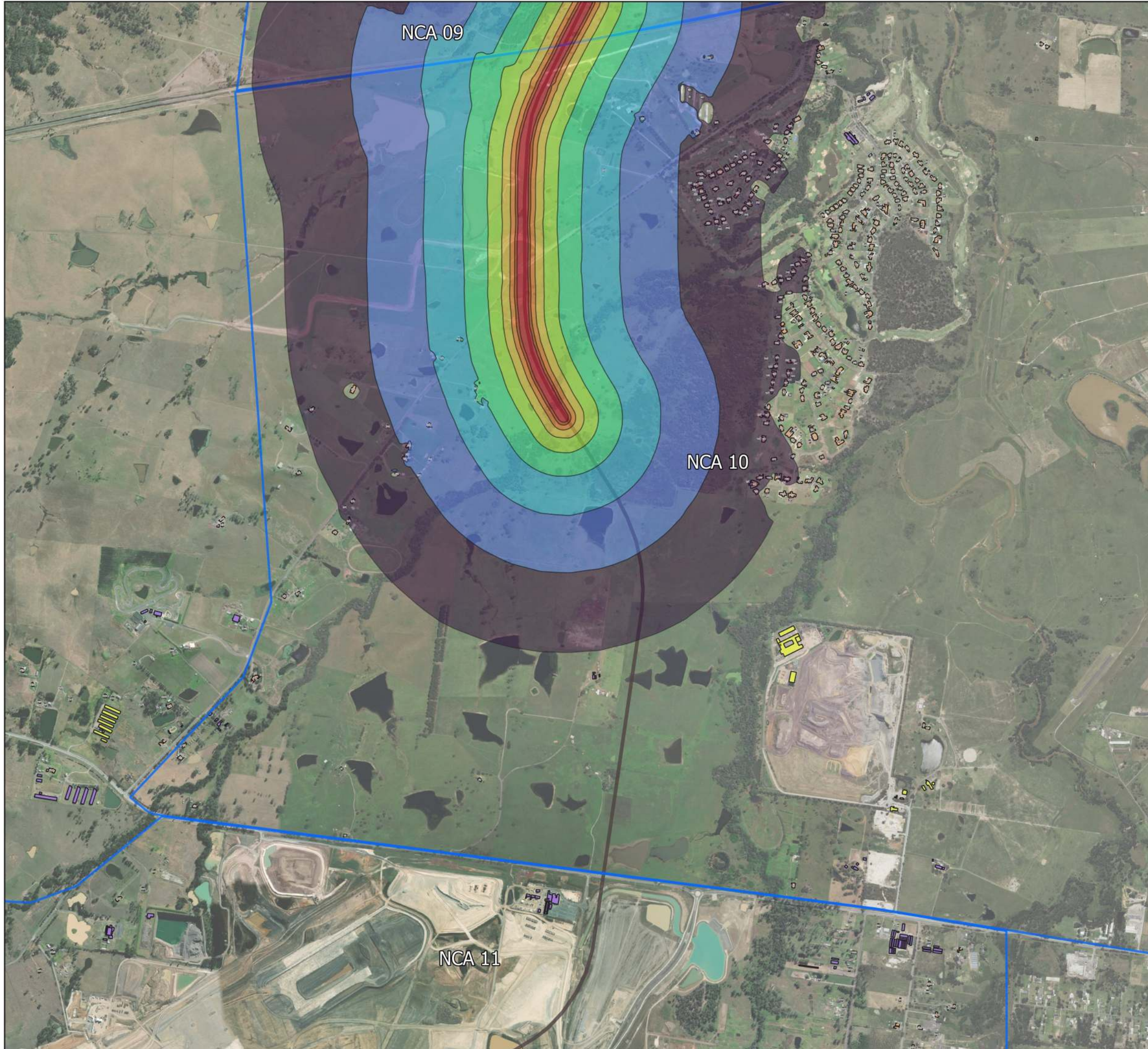
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-  55 - 60
-  60 - 65
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-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56

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





Sydney Metro SCAW
OOHW Activity 12
Day Noise Contours

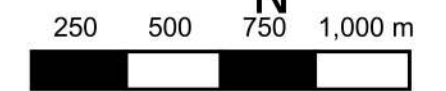
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

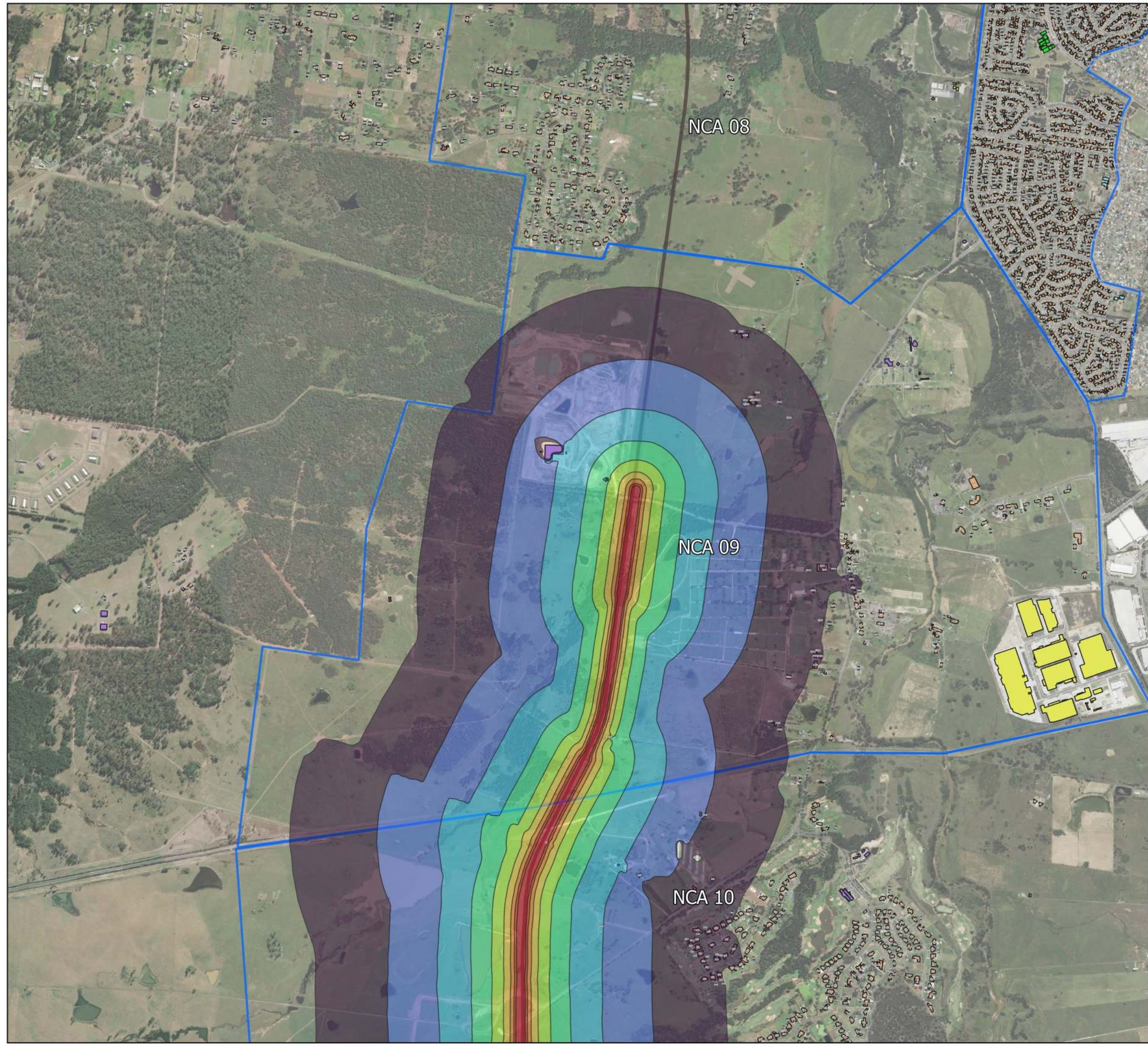
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-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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Sydney Metro SCAW
OOHW Activity 12
Day Noise Contours










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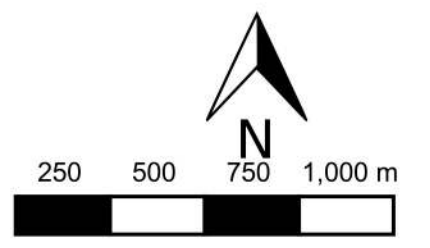
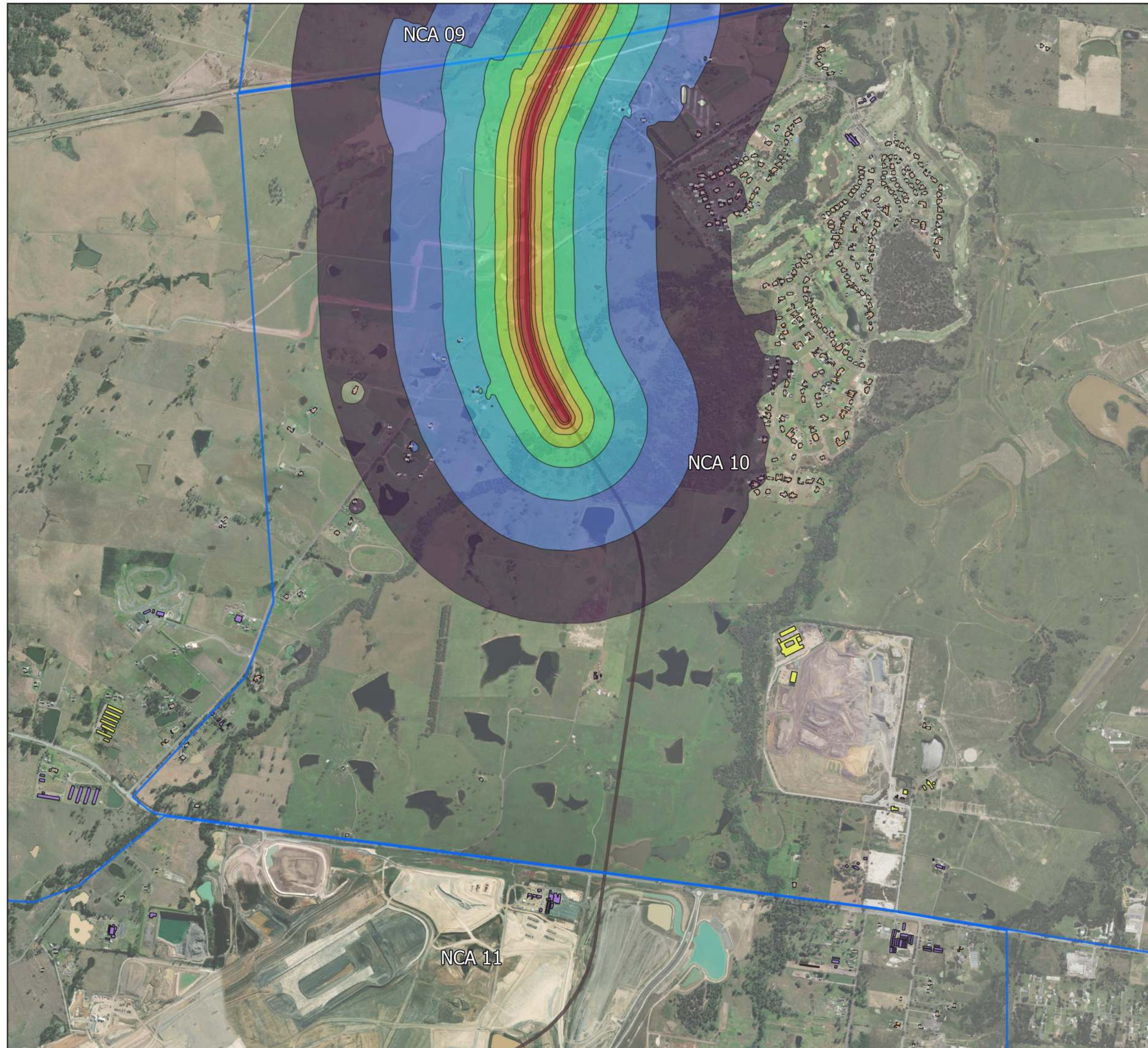
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



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Evening and Night Noise
Contours

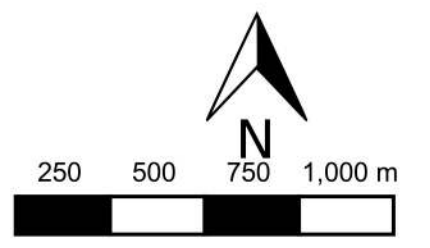
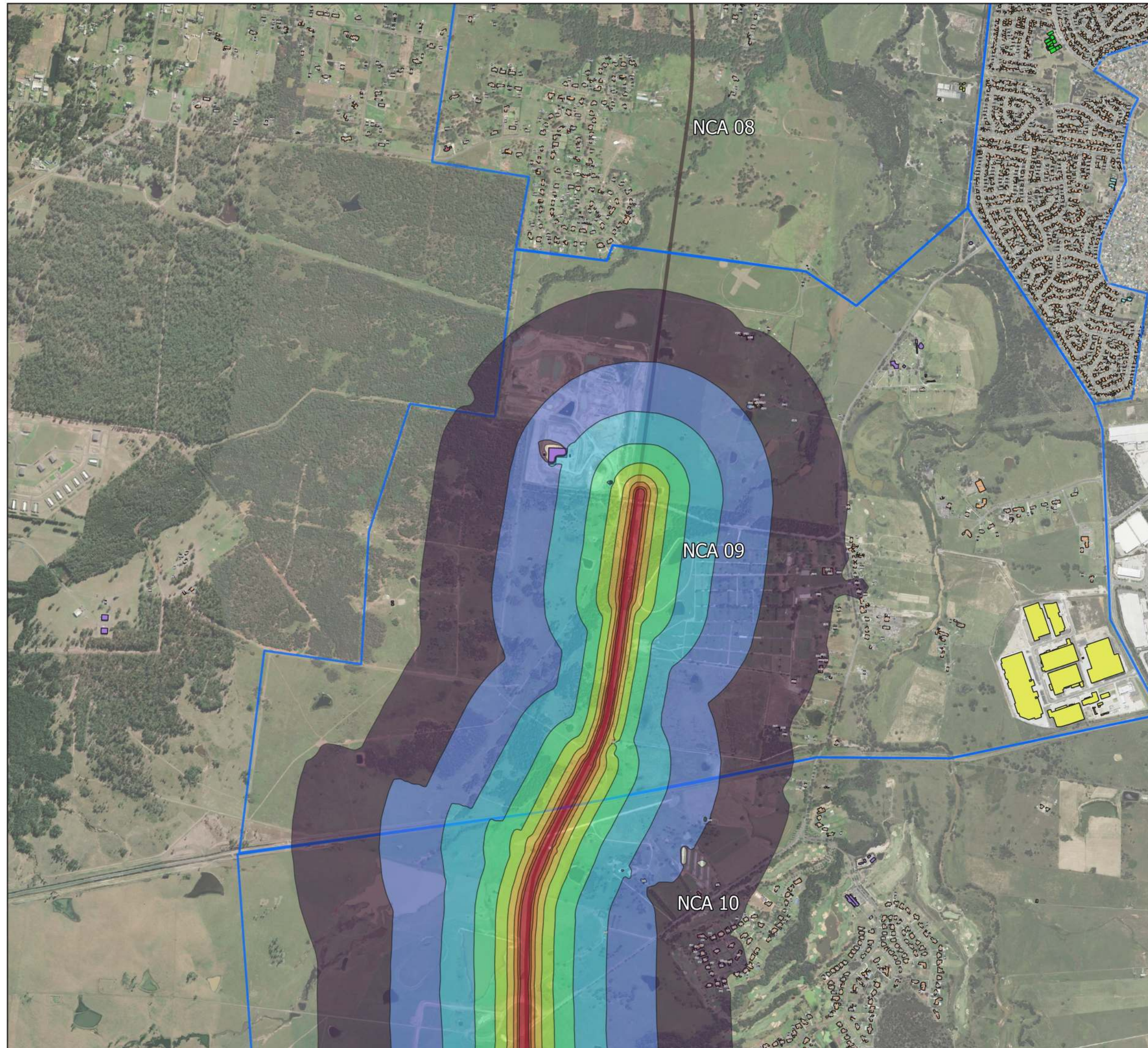
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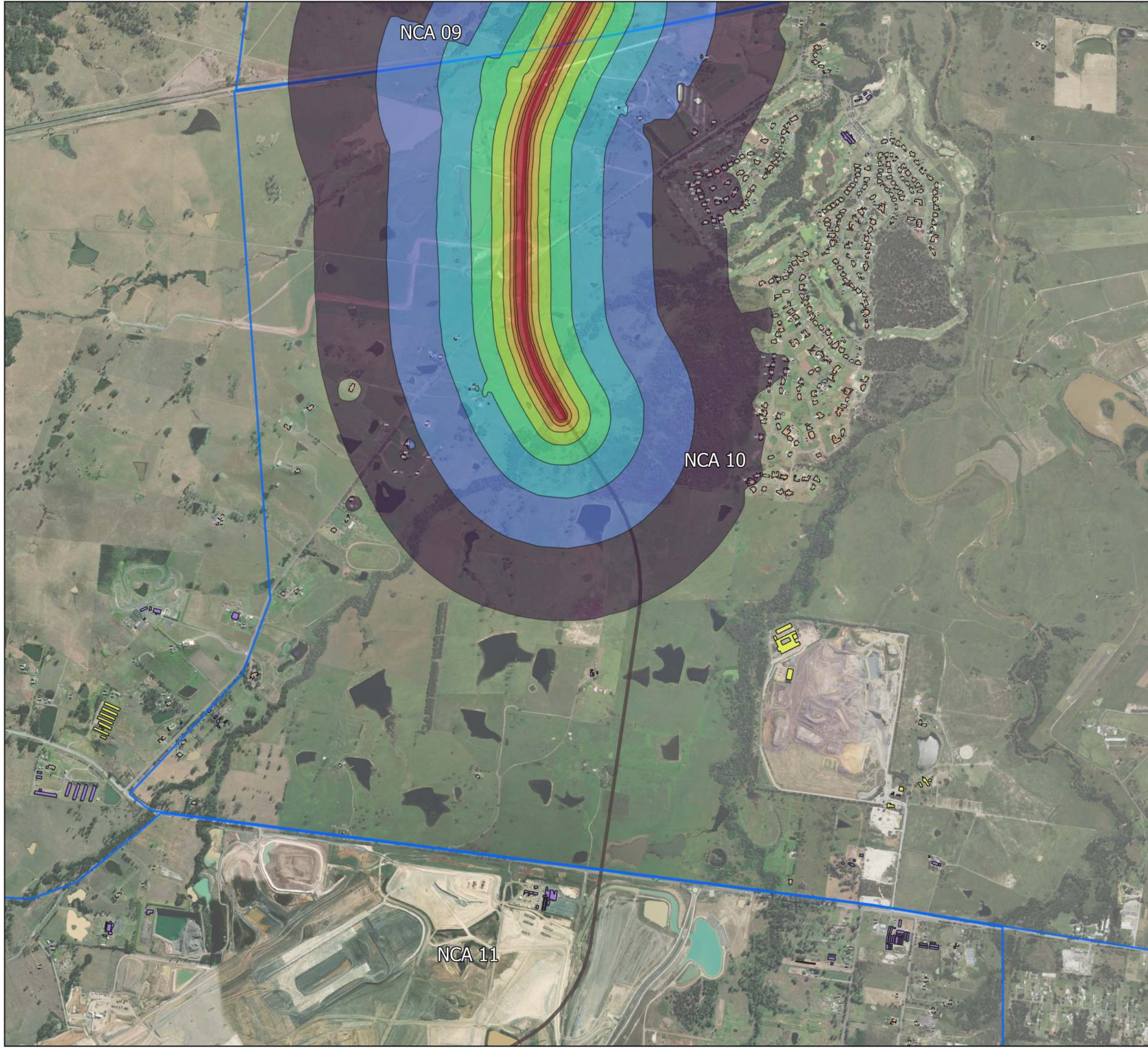
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-  60 - 65
-  65 - 70
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-  > 75



Datum GDA2020, Projection MGA ZONE 56



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NCA 09

NCA 10

NCA 11

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- 65 - 70
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- > 75



250 500 750 1,000 m



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




Sydney Metro SCAW
OOHW Activity 13
Day Noise Contours

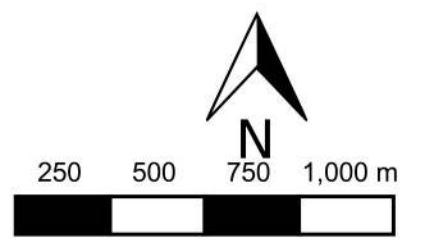
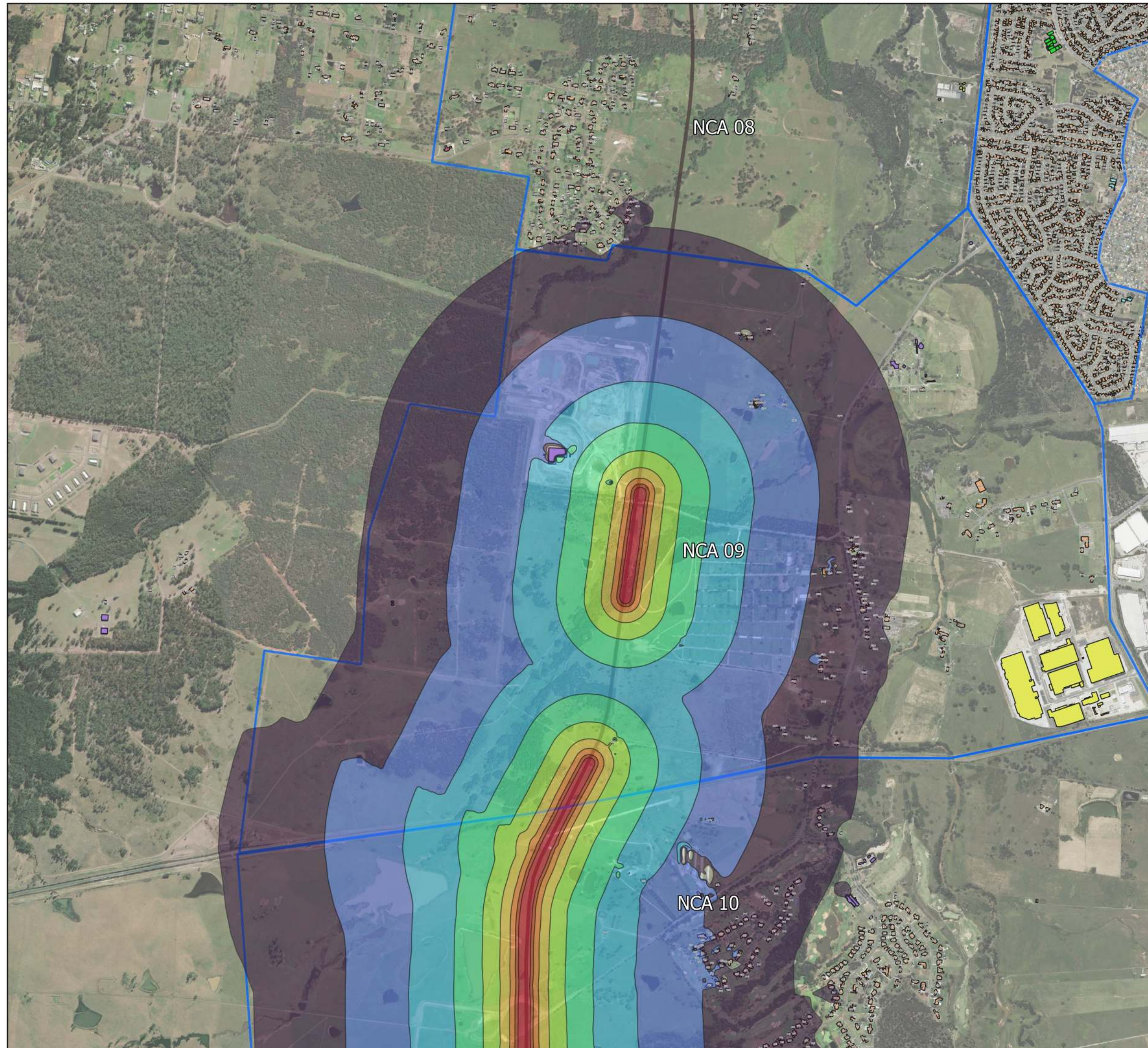
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OOHW Activity 13
Day Noise Contours









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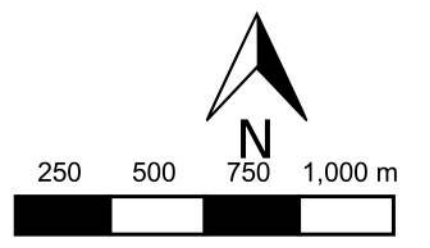
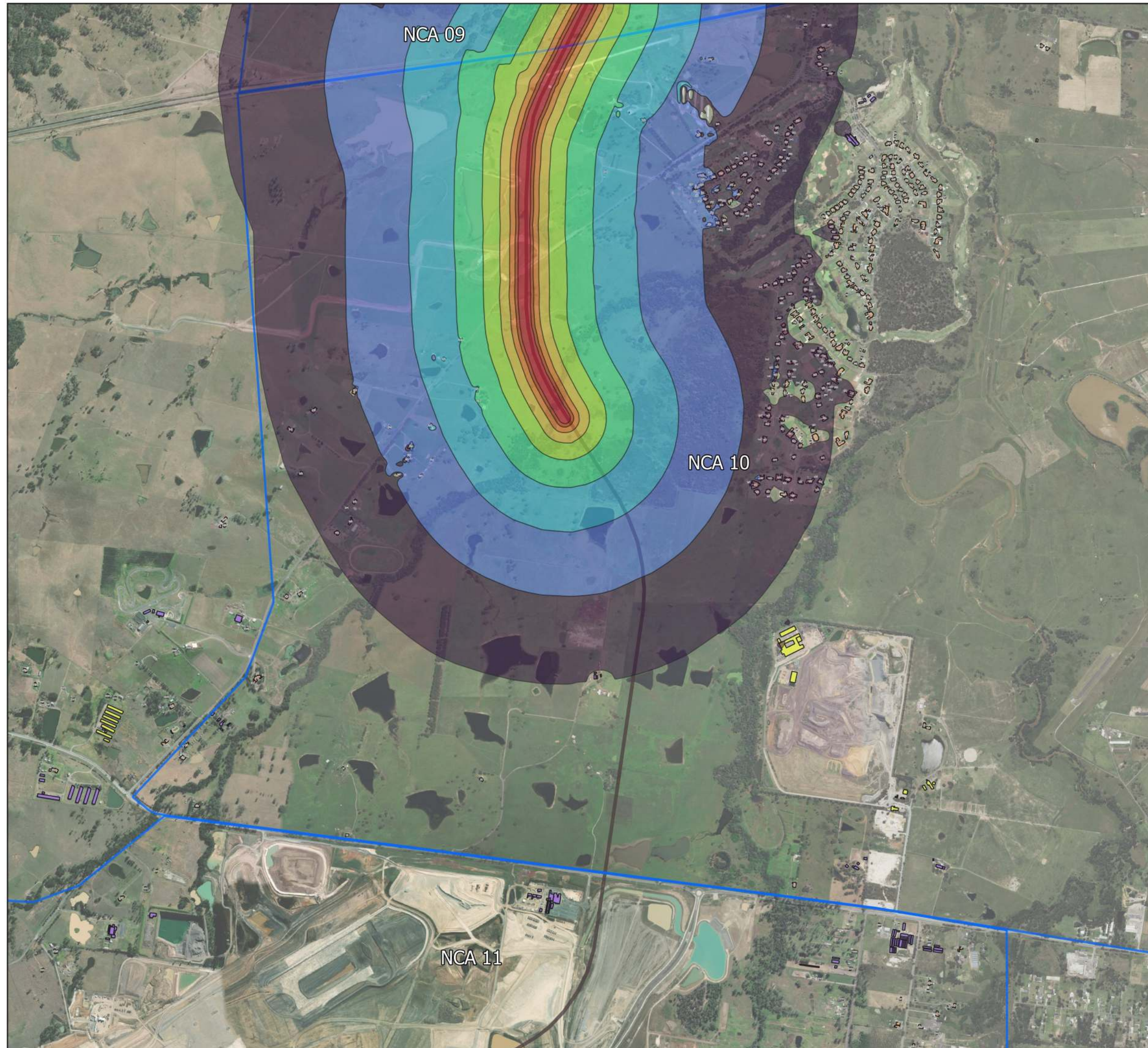
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-  65 - 70
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-  > 75



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OOHW Activity 13
Evening Noise Contours










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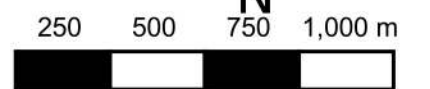
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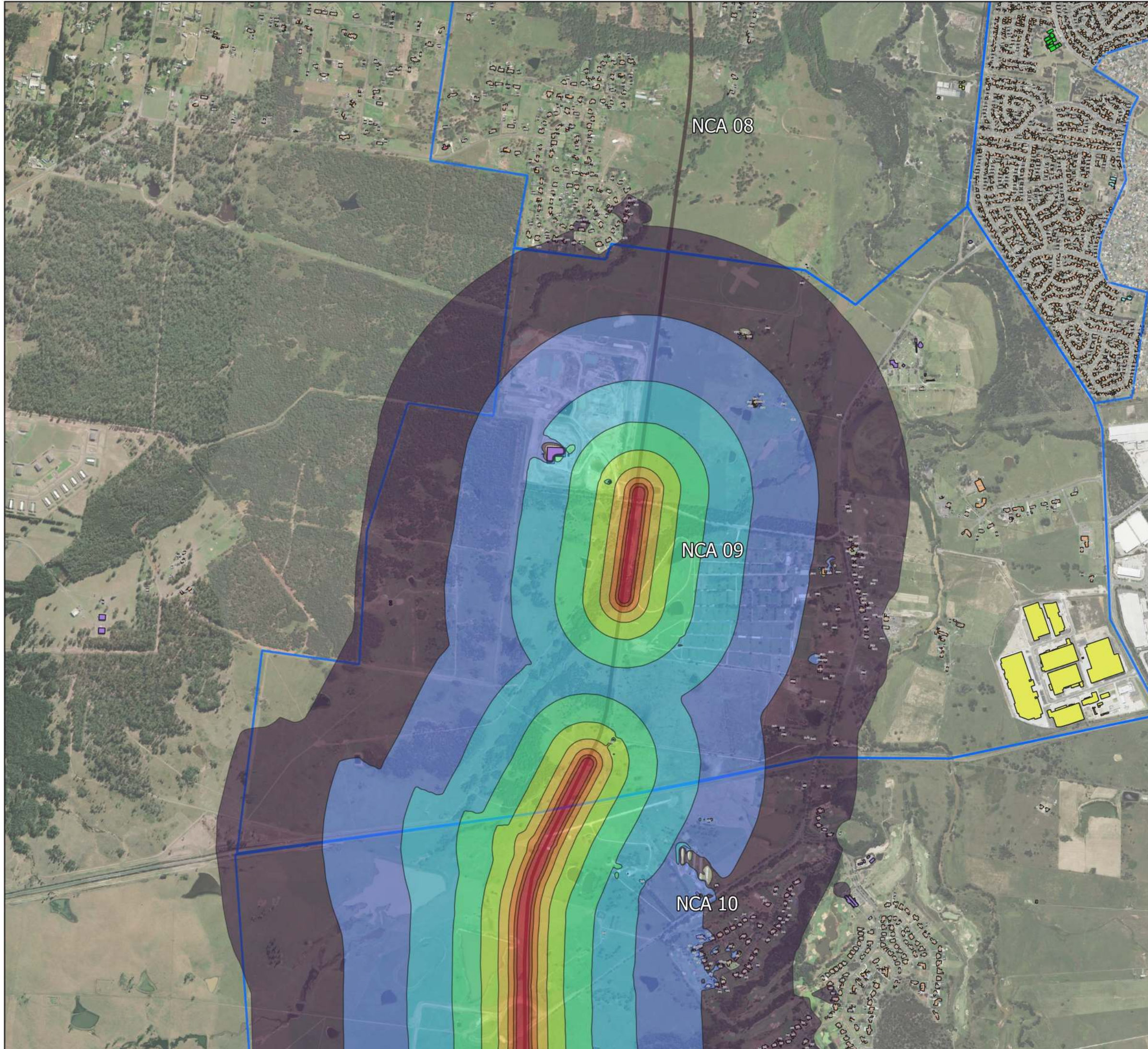
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-  > 75



Datum GDA2020, Projection MGA ZONE 56

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







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-  Noise Catchment Areas
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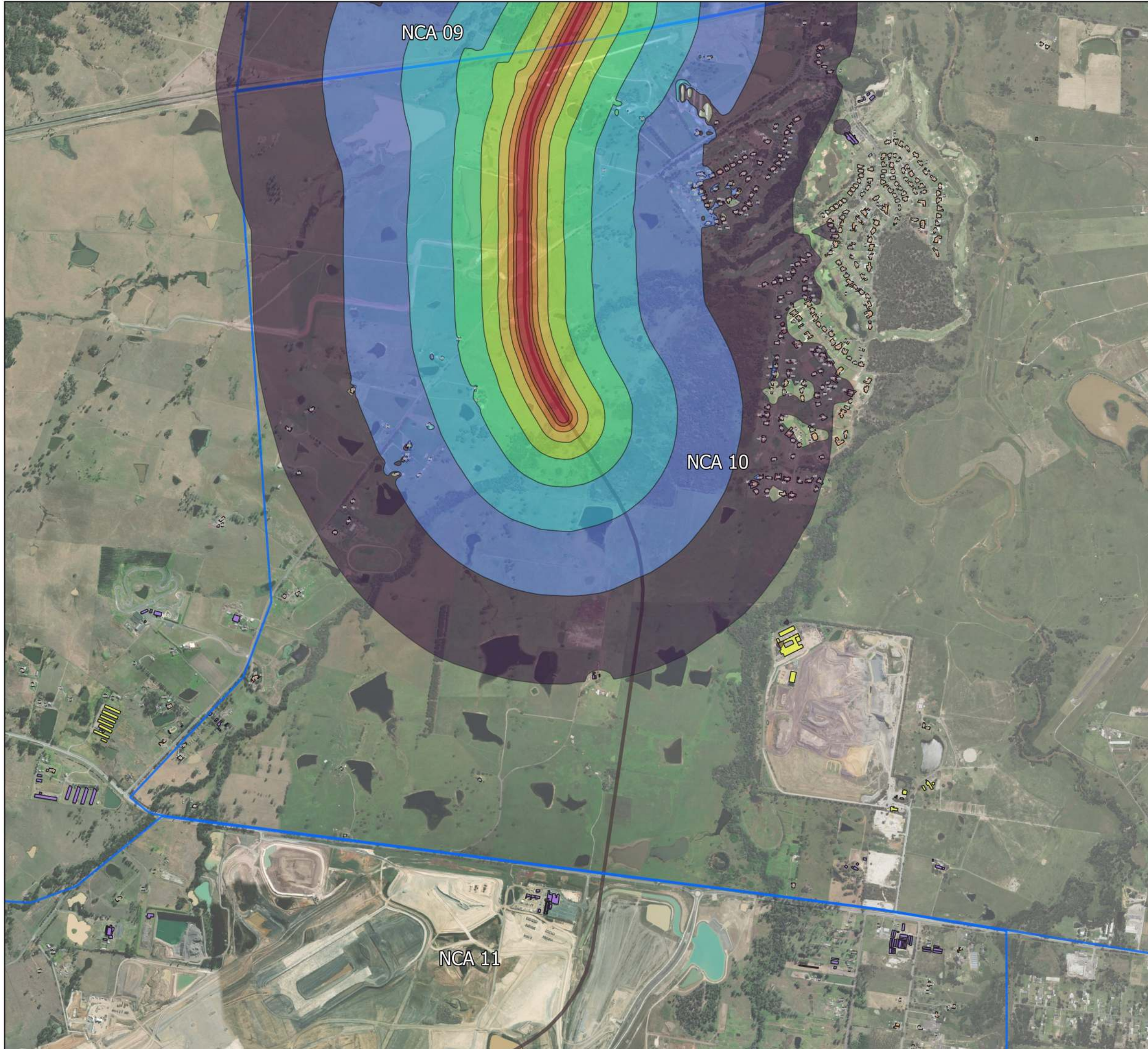
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-  > 75



Datum GDA2020, Projection MGA ZONE 56

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





Sydney Metro SCAW
OOHW Activity 14
Day Noise Contours

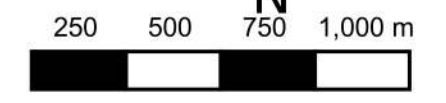
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

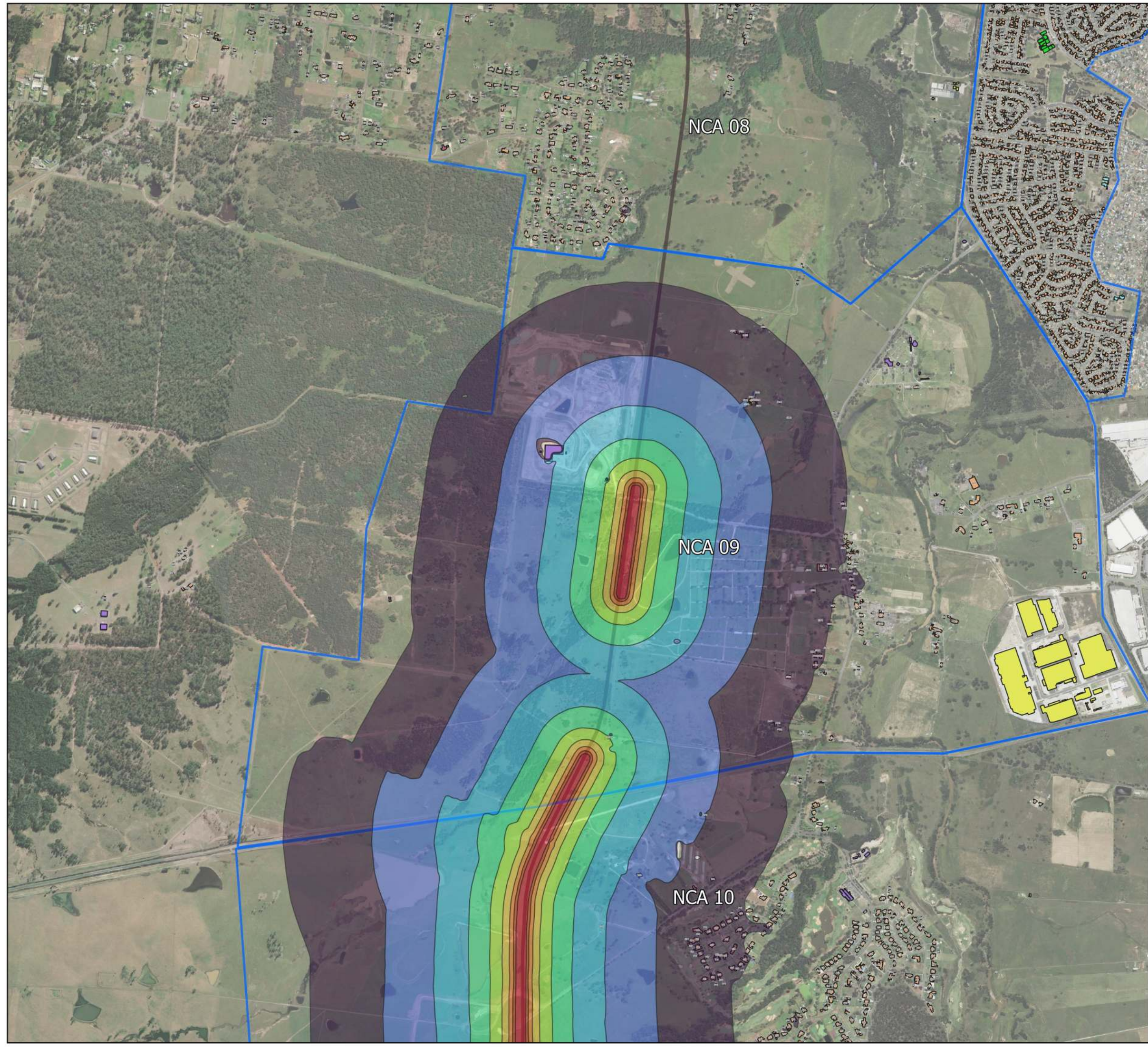
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-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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Sydney Metro SCAW
OOHW Activity 14
Day Noise Contours










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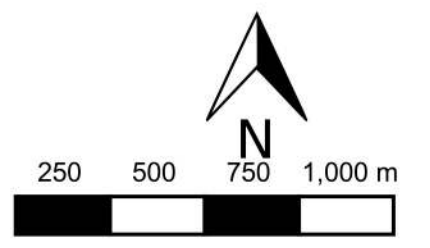
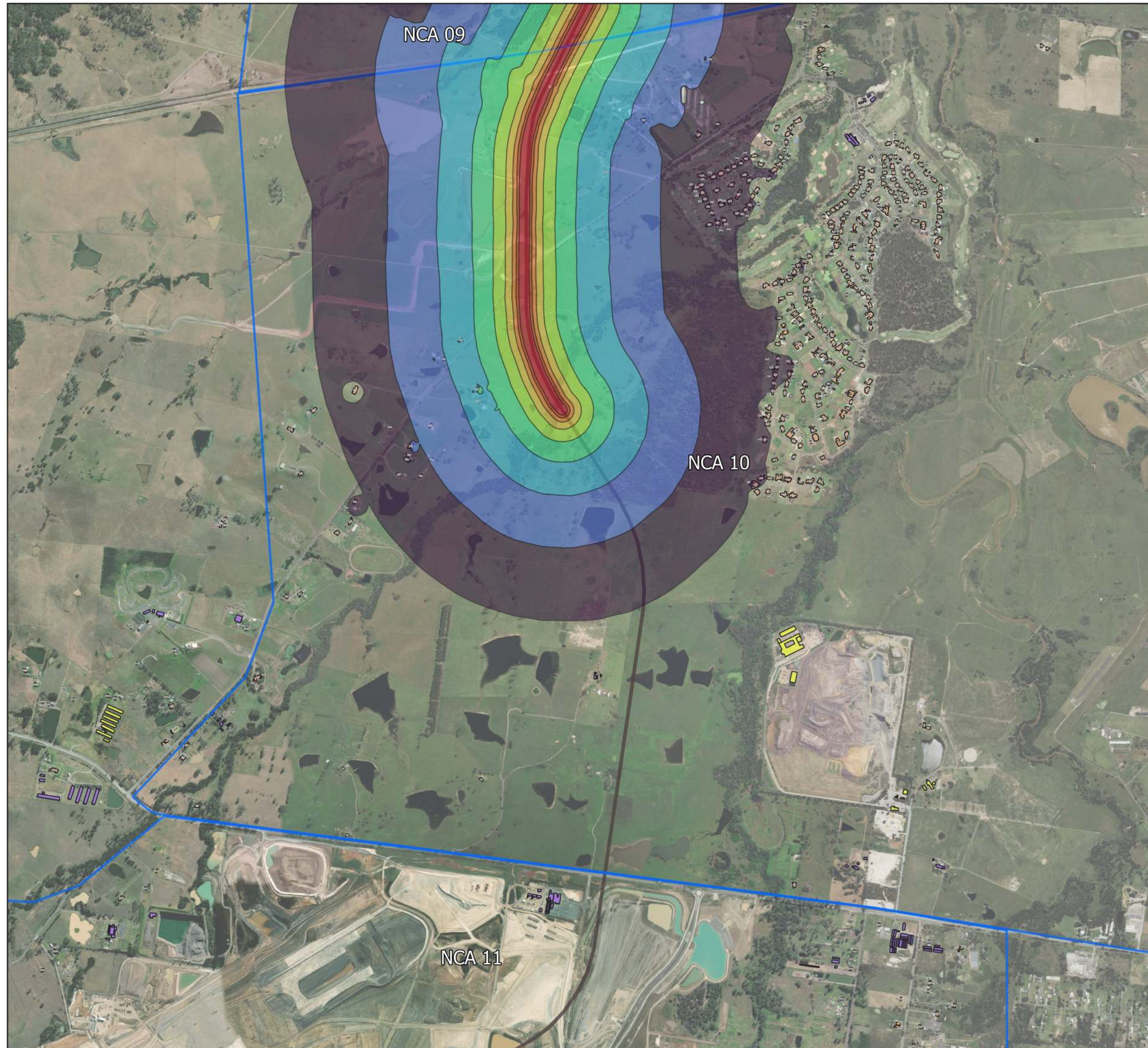
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-  Noise Catchment Areas
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Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
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-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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OOHW Activity 14
Evening Noise Contours









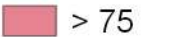
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

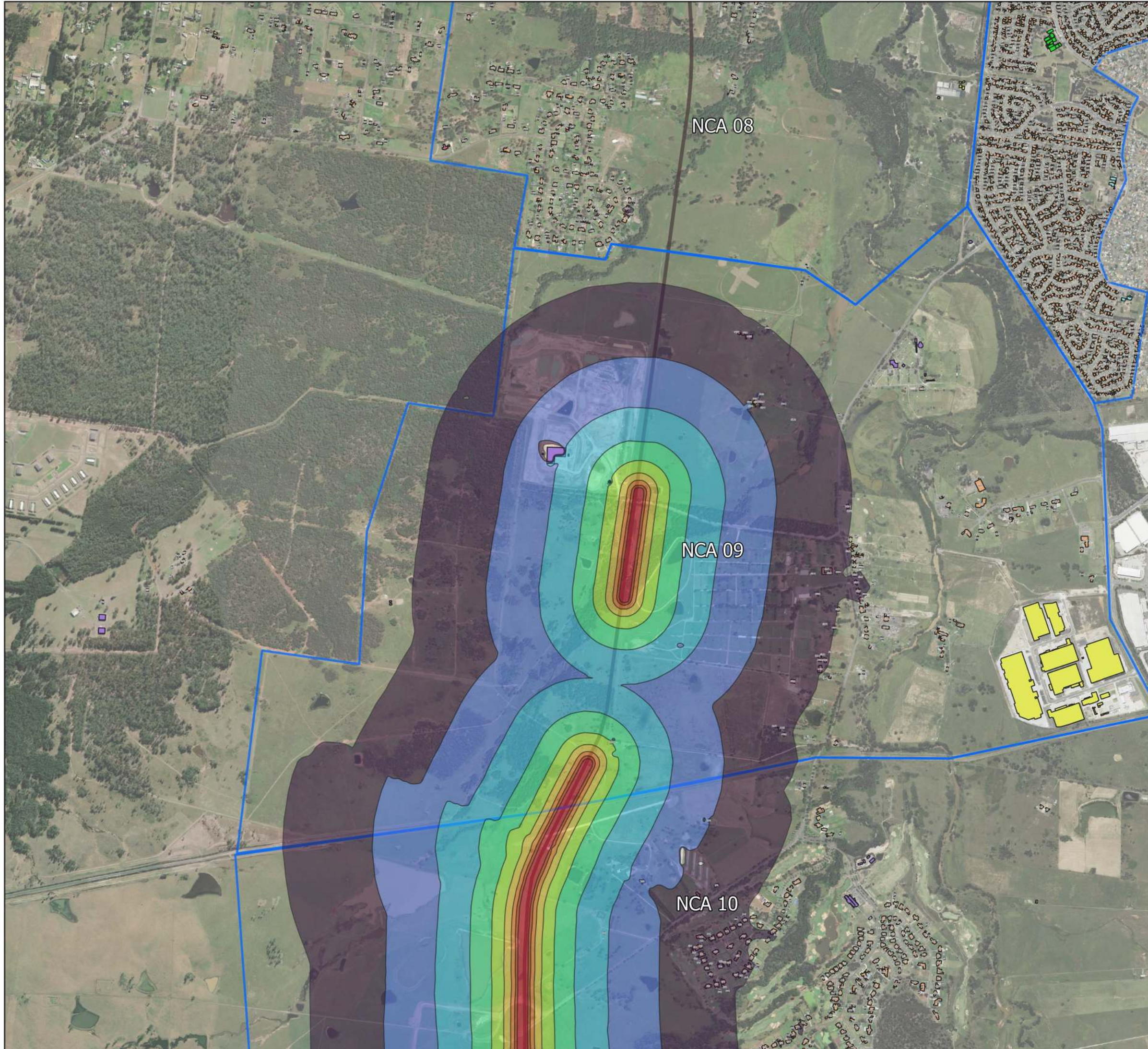
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-  > 75



Datum GDA2020, Projection MGA ZONE 56

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






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-  Noise Catchment Areas
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Predicted noise level, Leq dB(A)

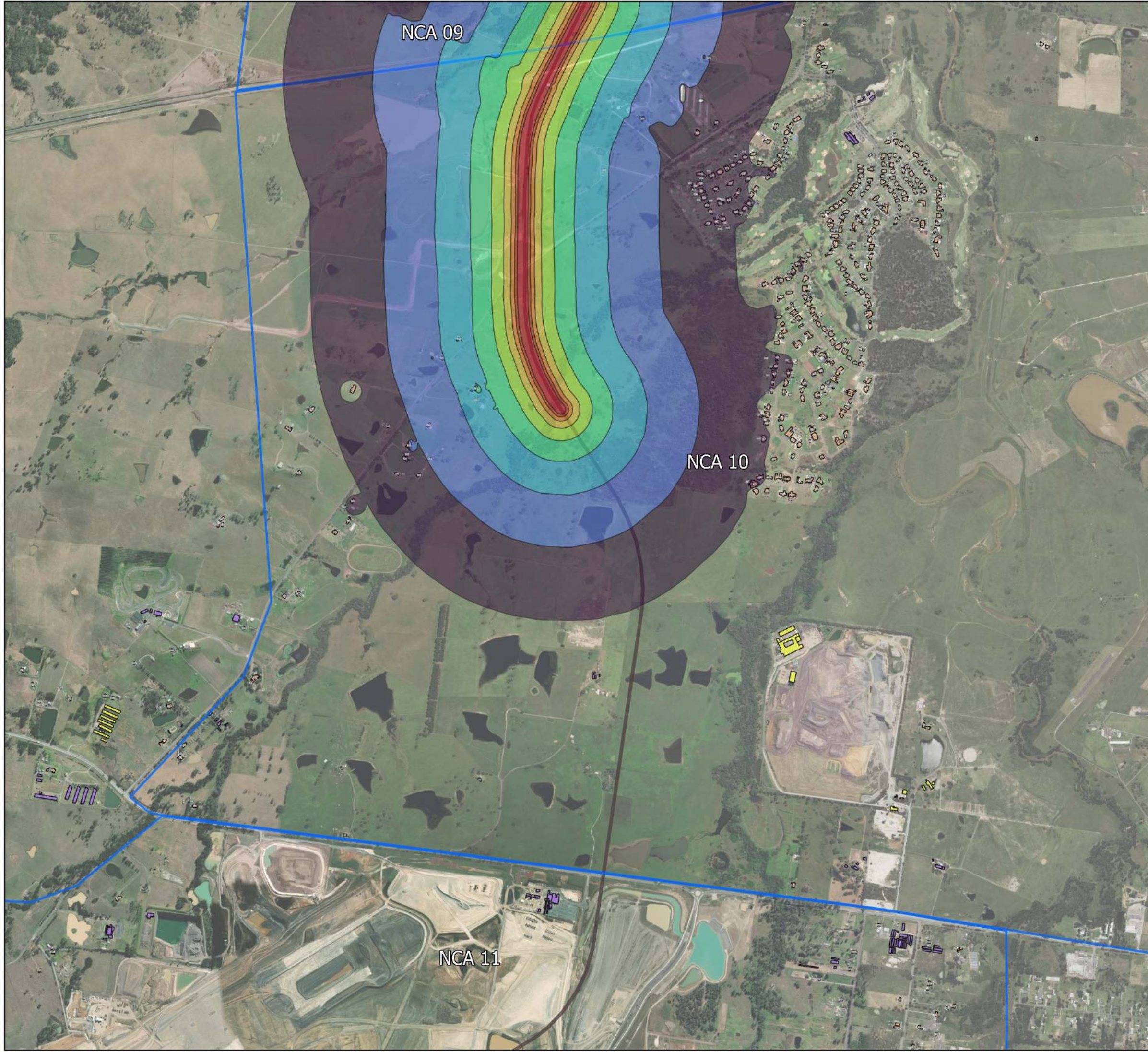
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-  65 - 70
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-  > 75



Datum GDA2020, Projection MGA ZONE 56

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




Sydney Metro SCAW
OOHW Activity 15
Day Noise Contours

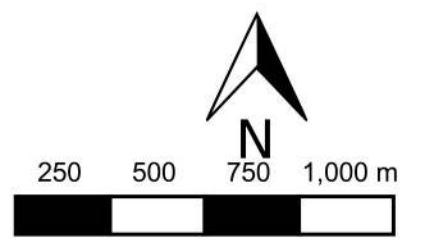
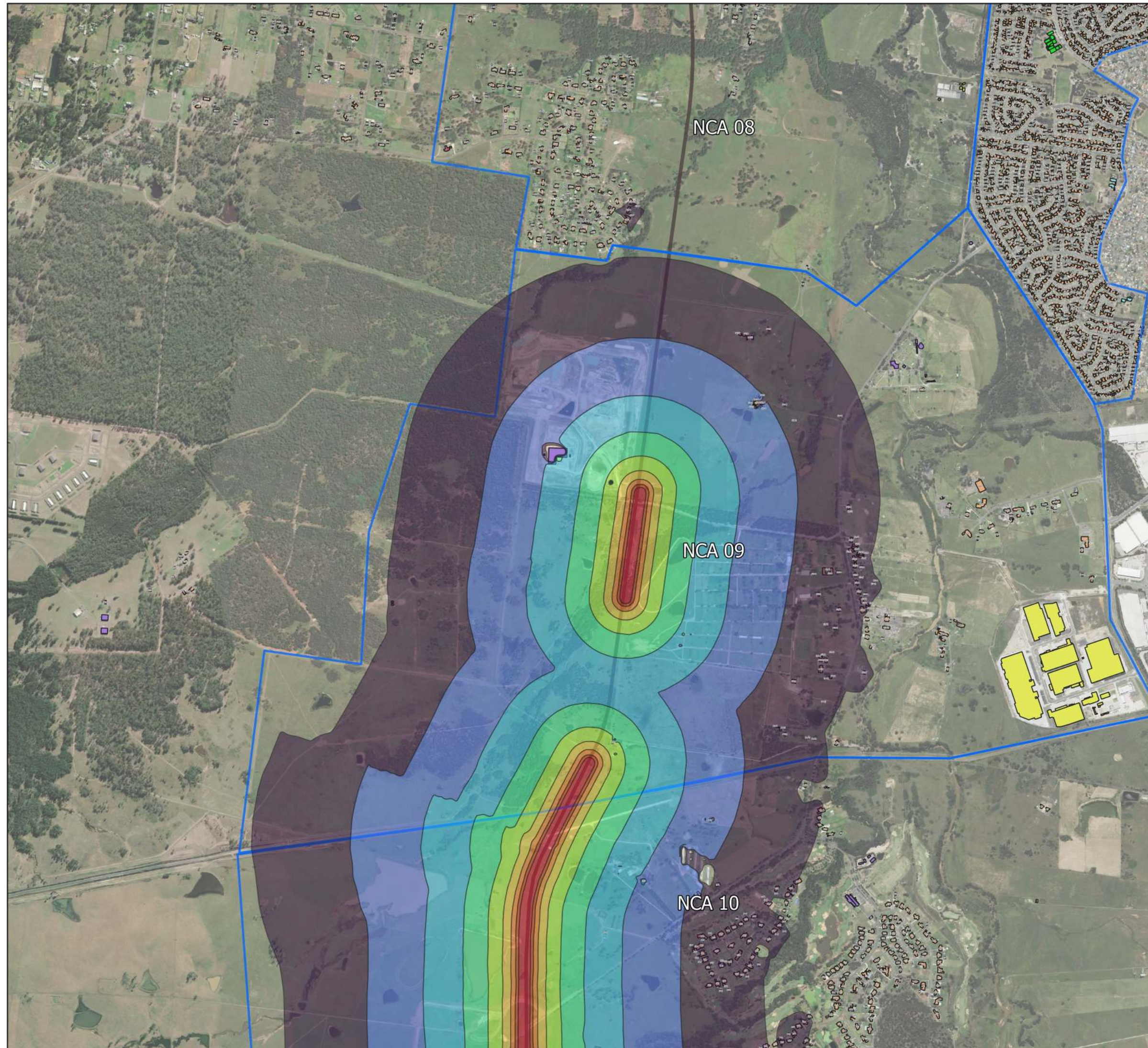
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Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

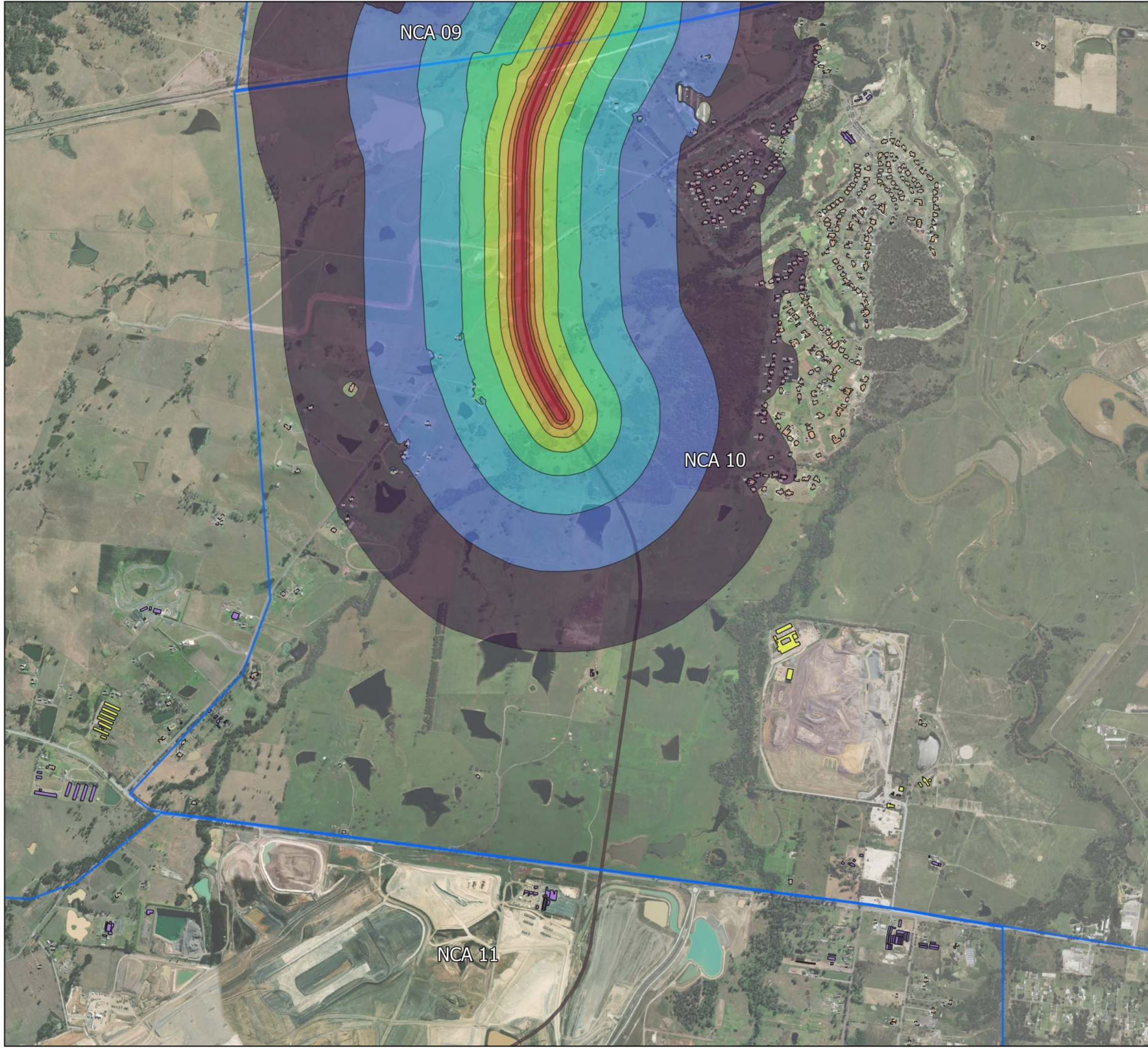
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-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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








Sydney Metro SCAW
OOHW Activity 15
Day Noise Contours

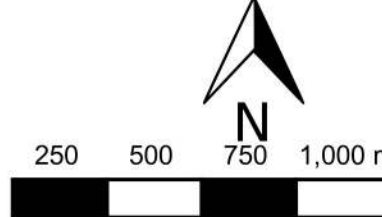
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




Sydney Metro SCAW
OOHW Activity 15
Evening and Night Noise
Contours

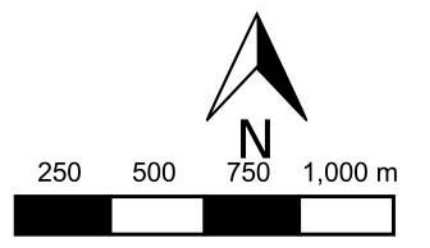
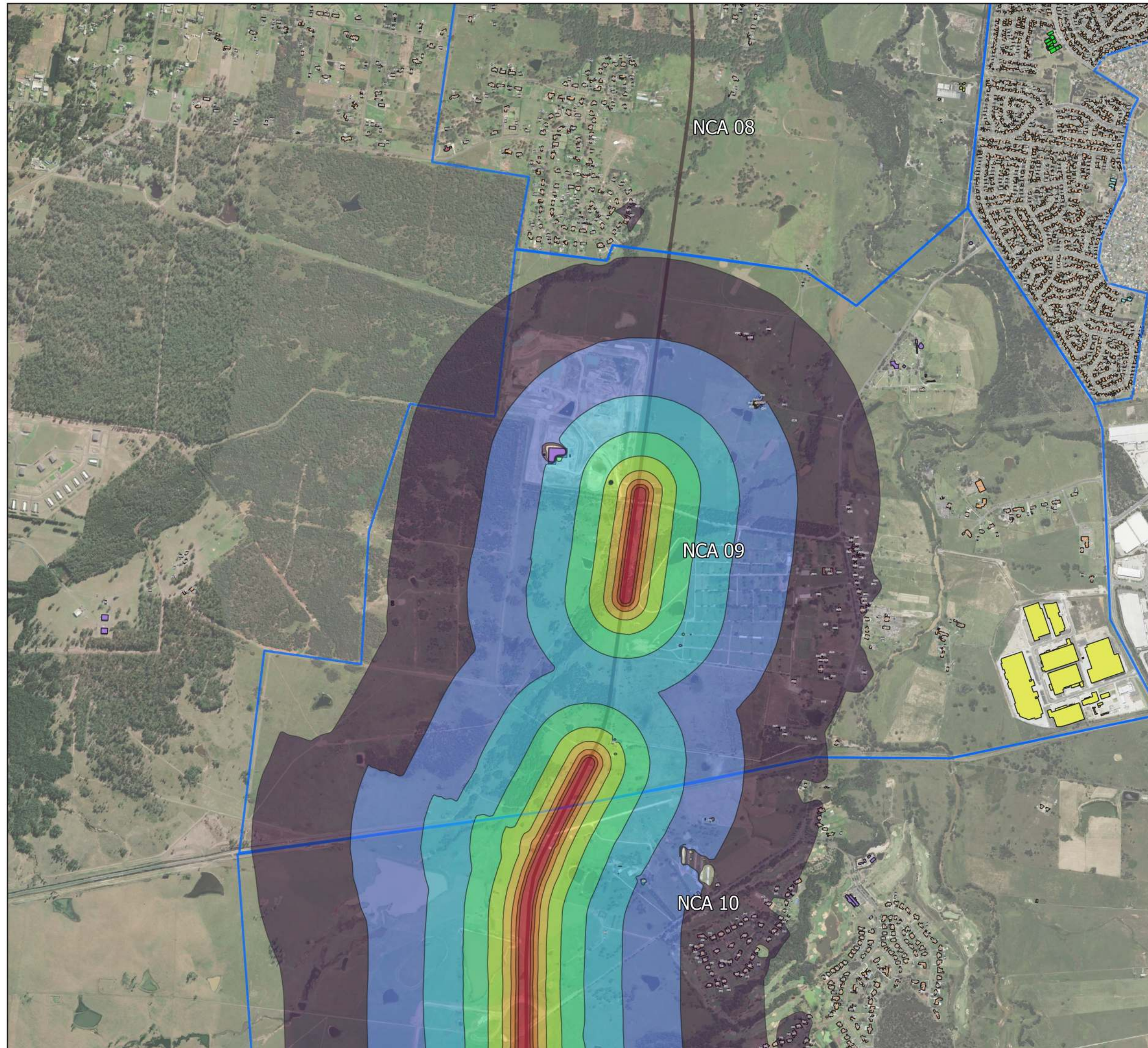
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Predicted noise level, Leq dB(A)

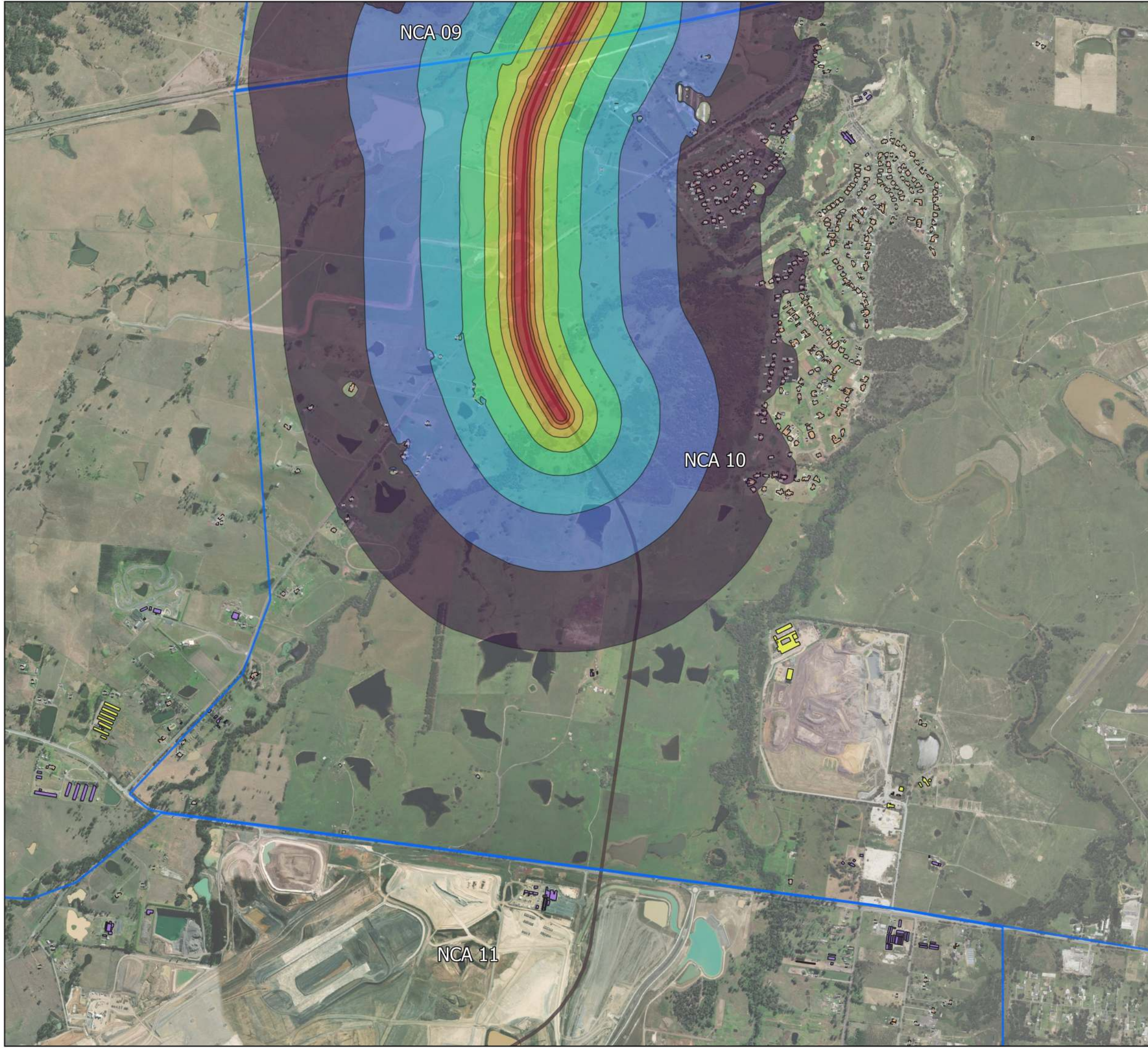
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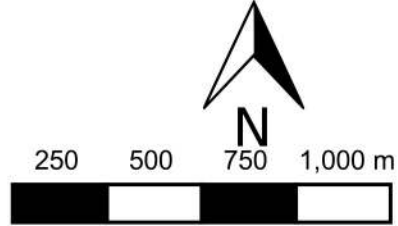
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





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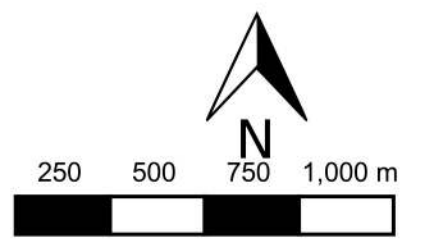
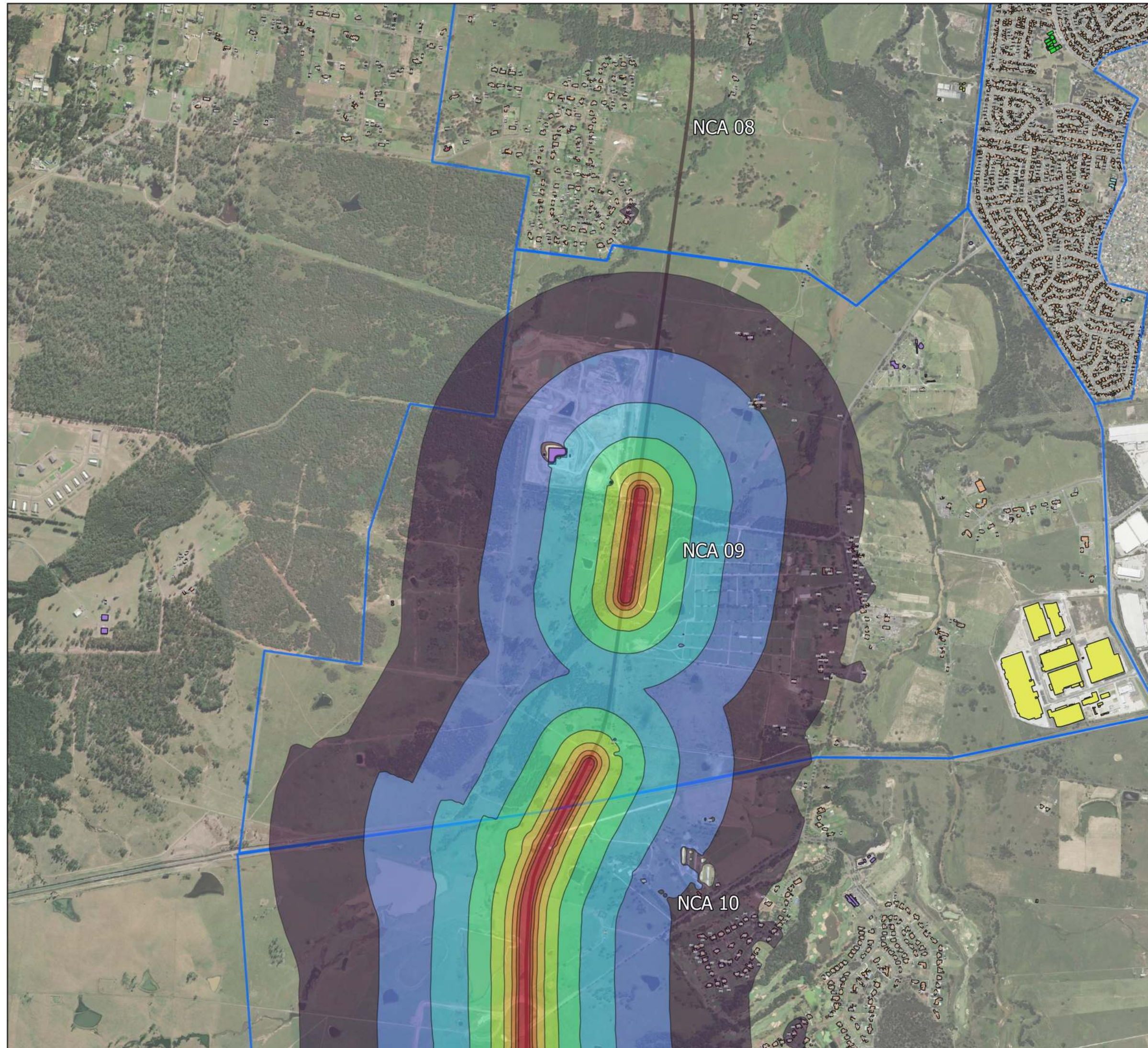
PROJECT NUMBER S220189
DRAWN BY AL
CHECKED BY AS
DATE ISSUED March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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OOHW Activity 16
Day Noise Contours










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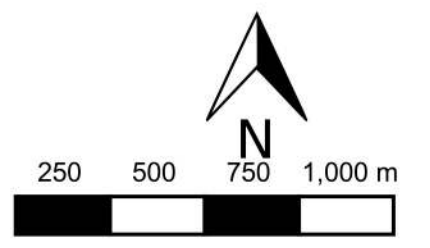
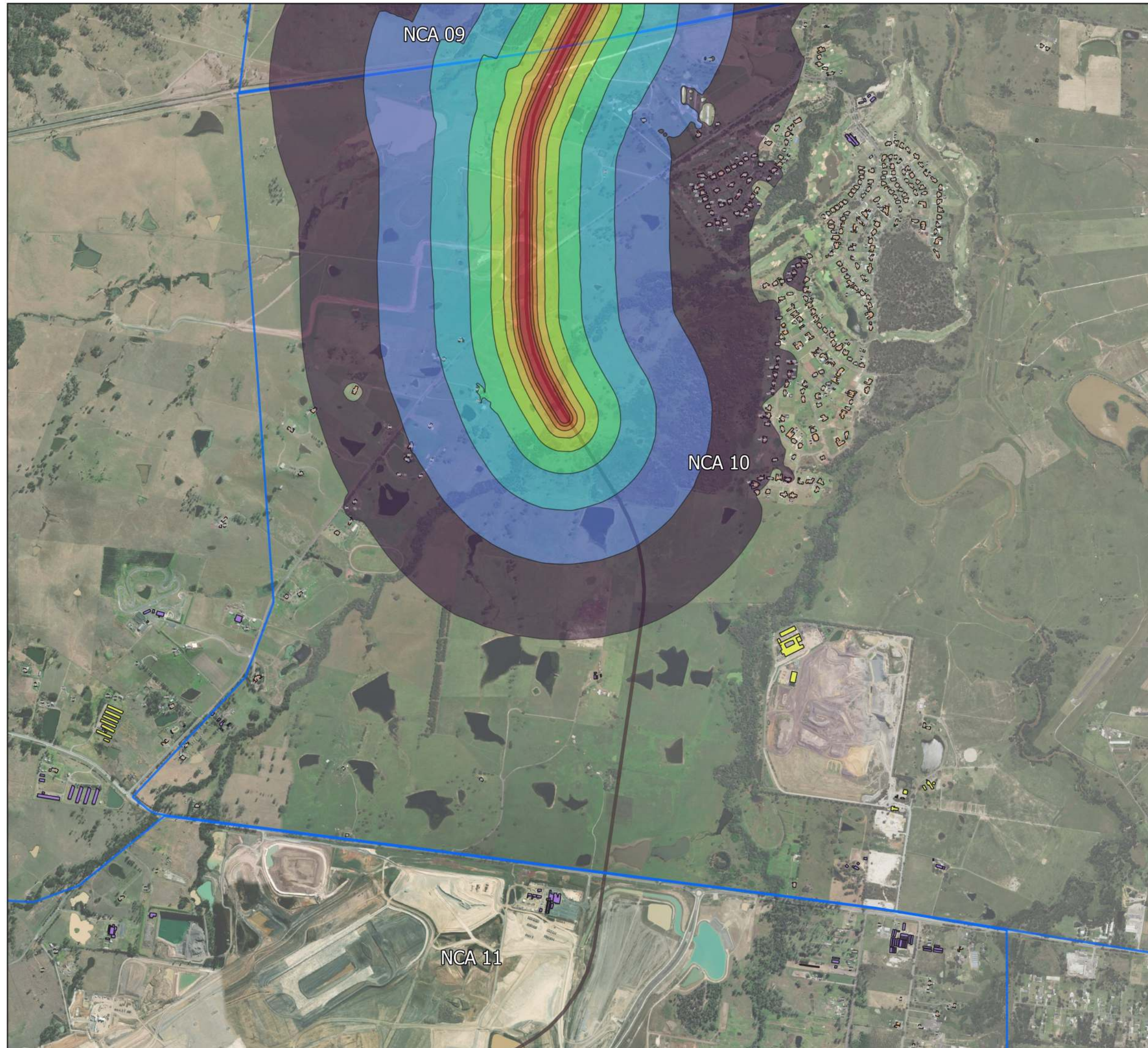
PROJECT NUMBER	S220189
DRAWN BY	AL
CHECKED BY	AS
DATE ISSUED	March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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




Sydney Metro SCAW
OOHW Activity 16
Evening and Night Noise
Contours

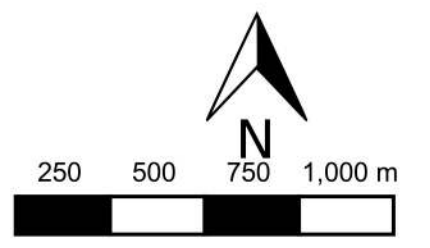
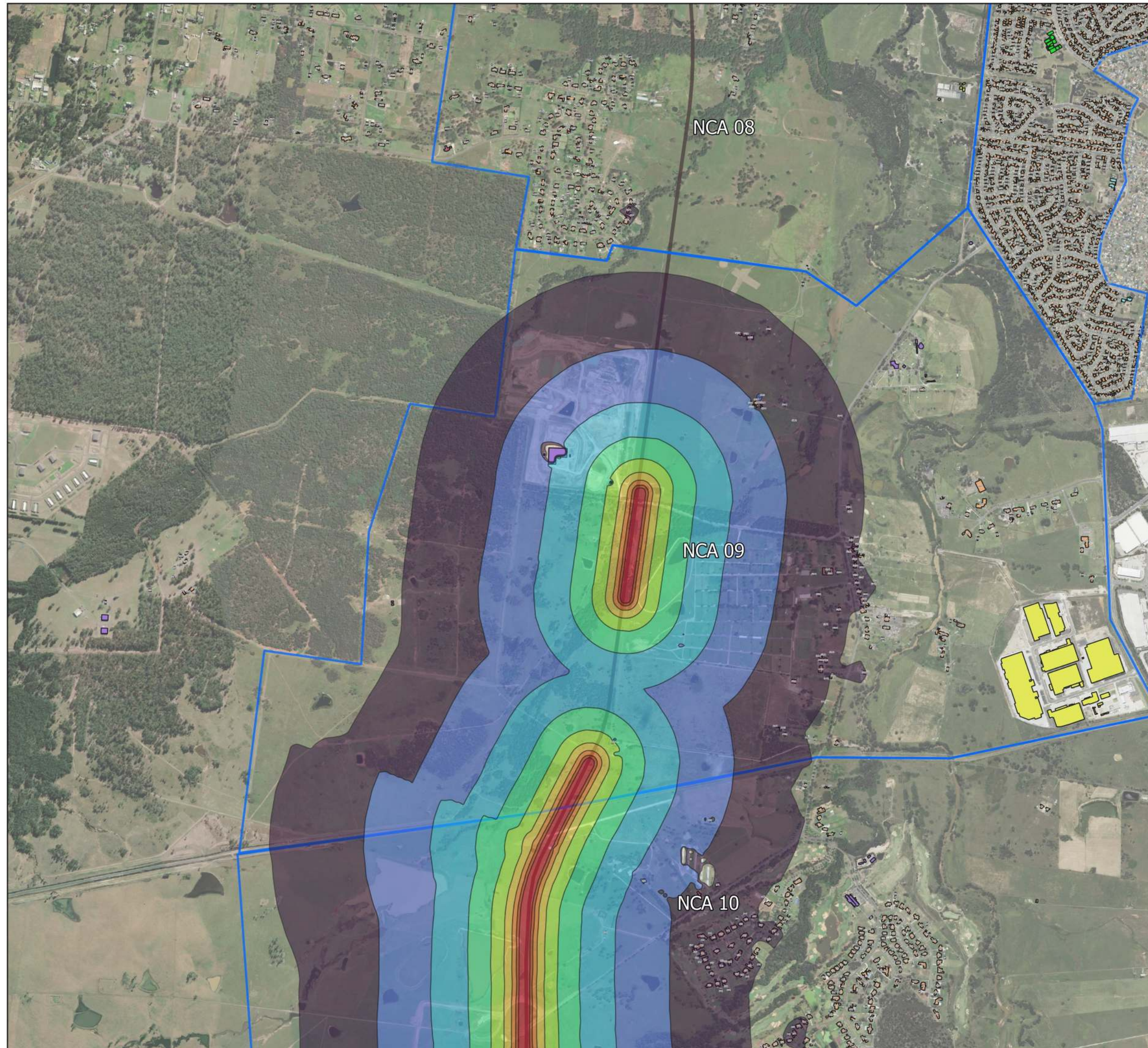
PROJECT NUMBER S220189
DRAWN BY AL
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DATE ISSUED March 2024

Legend

-  Noise Catchment Areas
-  Proposed Alignment

Predicted noise level, Leq dB(A)

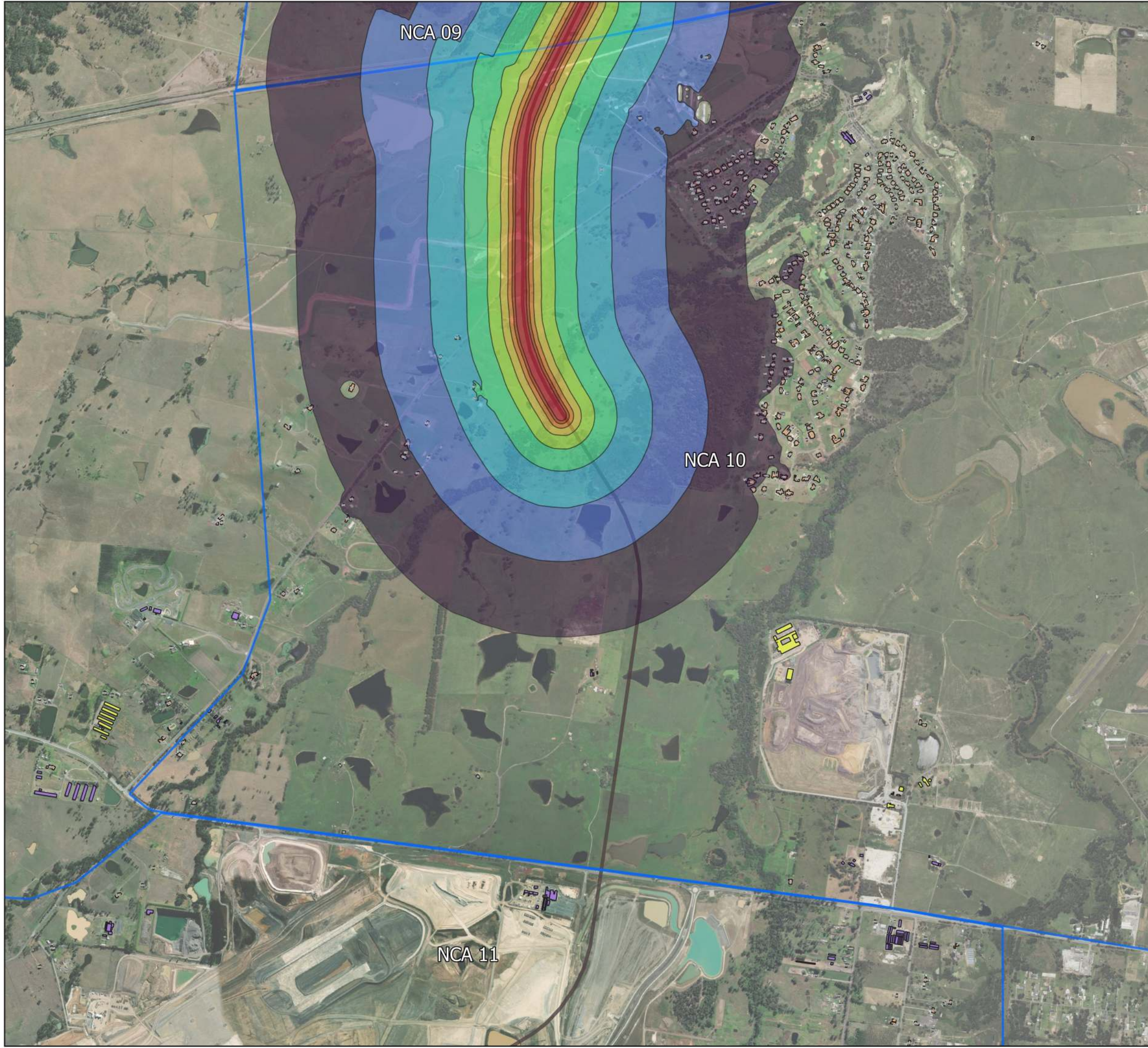
-  35 - 40
-  40 - 45
-  45 - 50
-  50 - 55
-  55 - 60
-  60 - 65
-  65 - 70
-  70 - 75
-  > 75



Datum GDA2020, Projection MGA ZONE 56



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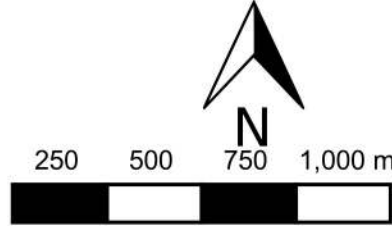
PROJECT NUMBER	S220189
DRAWN BY	AL
CHECKED BY	AS
DATE ISSUED	March 2024

Legend

- Noise Catchment Areas
- Proposed Alignment

Predicted noise level, Leq dB(A)

- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 60
- 60 - 65
- 65 - 70
- 70 - 75
- > 75



Datum GDA2020, Projection MGA ZONE 56



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Appendix C – Detailed noise predictions

No.	NCA	Usage	Rec	Address	Residential colour code additional mitigation measures: Bold = Highly noise affected	0 to 10 dB: LB 10 to 20 dB: LB, M 20 to 30 dB: LB, M, SN, RO Greater than 30 dB: LB, M, SN, IB, PC, RO																
						Unique ID	NML	Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 5	Activity 6	Activity 7	Activity 8	Activity 9	Activity 10	Activity 11	Activity 12	Activity 13	Activity 14	Activity 15
41259	NC9A	RES	105	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5210	45	33	29	26	28	26	24	26	19	43	43	36	35	38	35	36	36
41326	NC9A	RES	128	182-200 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5233	45	36	31	28	31	29	27	28	21	43	43	37	35	38	35	37	36
41351	NC9A	RES	134	202-210 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5239	45	39	34	31	33	31	29	31	24	42	43	36	34	38	35	36	35
41364	NC9A	RES	135	212-214 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5240	45	35	31	28	32	30	28	29	22	42	43	36	34	38	35	36	36
41417	NC9A	RES	142	216 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5247	45	36	32	29	32	30	28	30	22	42	42	36	34	37	34	36	35
41445	NC9A	RES	174	COOLAMON 221-227 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5279	45	38	33	30	36	33	31	33	26	43	43	36	35	38	35	37	36
41466	NC9A	RES	224	222-224 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5329	45	37	32	29	33	30	28	30	23	42	42	35	34	37	34	36	35
41478	NC9A	RES	228	222B LUDDENHAM RD, ORCHARD HILLS NSW 2748	5333	45	37	32	29	34	32	30	32	25	45	45	38	37	40	37	39	38
41486	NC9A	RES	229	226-228 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5334	45	36	32	29	37	30	28	29	22	41	41	35	33	36	33	35	34
41506	NC9A	RES	234	229-231 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5339	45	41	37	34	37	35	32	34	27	46	47	40	38	42	39	40	39
41529	NC9A	RES	244	230-234 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5349	45	37	32	29	33	31	28	30	23	41	41	35	33	36	33	35	34
41536	NC9A	RES	246	233-249 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5351	45	38	34	31	35	32	30	32	25	45	46	39	37	41	38	39	38
41559	NC9A	RES	255	236-238 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5360	45	37	33	30	33	31	28	30	23	41	42	35	33	37	34	35	34
41564	NC9A	RES	256	240-244 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5361	45	23	19	16	23	21	19	21	14	41	41	35	33	36	33	35	34
41615	NC9A	RES	267	246-248 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5372	45	31	27	24	29	28	25	27	20	41	42	35	33	37	34	35	35
41621	NC9A	RES	268	250-254 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5373	45	36	32	29	34	31	29	31	24	40	40	34	32	35	32	34	33
41667	NC9A	RES	280	251-261 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5385	45	39	35	32	35	33	31	32	25	43	43	37	35	38	35	37	36
41695	NC9A	RES	282	256 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5387	45	37	33	30	34	32	29	31	24	43	43	36	35	38	35	36	36
41702	NC9A	RES	283	262-266 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5388	45	38	33	30	35	33	30	32	25	40	41	34	32	36	33	34	33
41727	NC9A	RES	290	263-273 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5395	45	39	34	31	36	34	31	33	26	44	45	38	37	40	37	38	38
41730	NC9A	RES	292	268-288 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5397	45	39	34	31	36	34	31	33	26	41	41	34	33	36	33	35	34
41740	NC9A	RES	297	275-285 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5402	45	38	34	31	35	33	31	33	26	43	44	37	35	39	36	37	36
41761	NC9A	RES	299	275A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5404	45	40	36	33	37	34	32	34	27	43	44	37	35	39	36	37	36
41798	NC9A	RES	305	287 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5410	45	40	36	33	39	37	35	37	29	43	43	36	35	38	35	36	36
41818	NC9A	RES	307	289-317 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5412	45	42	37	34	38	36	33	35	28	45	45	38	36	40	37	38	37
41841	NC9A	RES	309	31-39 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5414	45	27	23	20	23	21	19	20	13	35	35	28	27	30	27	29	28
41851	NC9A	RES	313	319-325 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5418	45	42	38	35	40	37	35	37	30	46	46	38	36	40	37	38	37
41887	NC9A	RES	319	320-326 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5424	45	41	36	33	39	37	34	36	29	42	42	34	33	36	33	35	34
41903	NC9A	RES	322	43A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5427	45	31	26	23	27	25	23	25	18	40	40	34	32	35	32	34	33
41951	NC9A	RES	344	573-577 MAMRE RD, ORCHARD HILLS NSW 2748	5449	45	30	26	23	28	26	24	25	18	33	33	26	25	28	25	26	26
41960	NC9A	RES	346	1-19 MANDALONG CL, ORCHARD HILLS NSW 2748	5451	45	30	25	22	27	25	22	24	17	35	35	29	27	30	28	29	28
41980	NC9A	RES	348	21A MANDALONG CL, ORCHARD HILLS NSW 2748	5453	45	32	28	25	30	28	25	27	20	35	35	29	27	30	27	29	28
42005	NC9A	RES	351	25-31 MANDALONG CL, ORCHARD HILLS NSW 2748	5456	45	30	25	22	27	25	23	25	18	34	34	28	26	29	26	28	27
42047	NC9A	RES	355	39-41 MANDALONG CL, ORCHARD HILLS NSW 2748	5460	45	30	26	23	28	25	23	25	18	34	34	28	26	29	26	28	27
42089	NC9A	RES	360	43-51 MANDALONG CL, ORCHARD HILLS NSW 2748	5465	45	31	26	23	28	26	24	26	18	35	35	29	27	30	27	29	28
42137	NC9A	RES	364	53-63 MANDALONG CL, ORCHARD HILLS NSW 2748	5469	45	31	27	24	29	26	24	26	19	35	36	29	28	31	28	29	29
42193	NC9A	RES	370	66-73 MANDALONG CL, ORCHARD HILLS NSW 2748	5475	45	32	27	24	29	27	25	27	19	36	36	30	28	31	28	30	29
42250	NC9A	RES	376	75-77 MANDALONG CL, ORCHARD HILLS NSW 2748	5481	45	35	30	27	32	30	28	30	22	39	40	33	31	35	32	33	32
42265	NC9A	RES	377	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5482	45	33	28	25	29	27	25	27	19	38	39	32	30	34	31	32	31
42347	NC9A	RES	392	83-91 MANDALONG CL, ORCHARD HILLS NSW 2748	5497	45	32	27	24	29	27	24	26	19	38	38	32	30	33	30	32	31
42396	NC9A	RES	755	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6271	45	33	29	26	27	26	24	26	19	33	34	27	25	29	26	27	26
44920	NC9A	RES	16	1669A ELIZABETH DR, BADGERYS CREEK NSW 2555	16	40	24	20	17	27	26	23	25	18	37	32	25	24	27	23	25	25
44940	NC9A	RES	52	1783-1789 ELIZABETH DR, BADGERYS CREEK NSW 2555	52	40	21	17	14	24	23	21	22	15	36	30	24	22	25	22	24	23
44958	NC9A	RES	82	1953-2109 ELIZABETH DR, BADGERYS CREEK NSW 2555	82	40	24	20	17	28	26	24	26	18	34	34	28	26	29	26	28	27
44980	NC9A	RES	97	707A MAMRE RD, KEMPS CREEK NSW 2178	97	40	35	31	28	36	33	31	33	26	35	36	29	27	31	28	29	28
45026	NC9A	RES	104	3 BRIDPORT PL, LUDDENHAM NSW 2745	104	40	33	28	25	38	36	34	36	29	48	45	39	37	40	37	39	38
45035	NC9A	RES	106	4 BRIDPORT PL, LUDDENHAM NSW 2745	106	40	34	30	27	42	40	38	39	32	47	46	40	38	41	38	40	39
45070	NC9A	RES	107	10 COMARGO LANE, LUDDENHAM NSW 2745	107	40	44	40	37	43	41	38	40	33	44	45	38	36	39	36	38	37
45085	NC9A	RES	108	2 COMARGO LANE, LUDDENHAM NSW 2745	108	40	41	36	33	42	39	37	39	31	40	41	34	32	35	32	34	33
45125	NC9A	RES	111	4 COMARGO LANE, LUDDENHAM NSW 2745	111	40	44	39	36	43	40	38	39	32	43	44	37	35	39	36	37	36
45138	NC9A	RES	112	6 COMARGO LANE, LUDDENHAM NSW 2745	112	40	42	37	34	45	42	40	42	35	42	42	35	33	37	34	35	34
45151	NC9A	RES	113	8 COMARGO LANE, LUDDENHAM NSW 2745	113	40	42	37	34	42	40	37	39	32	42	43	35	33	37	34	35	34
45165	NC9A	RES	114	2 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	114	40	38	34	31	43	41	38	40	33	38	38	31	30	33	30	31	31
45179	NC9A	RES	115	3 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	115	40	38	34	31	43	41	38	40	33	40	40	34	32	35	32	34	33
45206	NC9A	RES	116	4 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	116	40	38	34	31	45	40	38	40	33	41	42	35	33	37	34	35	34
45215	NC9A	RES	118	5 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	118	40	38	34	31	45	43	40	42	35	39	40	33	31	35	32	33	32
45238	NC9A	RES	119	6 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	119	40	41	36	33	45	43	40	42	35	40	40	34	32	35	32	34	33
45264	NC9A	RES	120	7 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	120	40	41	36	33	45	42	40	42	35	40	40	34	32	35	32	34	33
45275	NC9A	RES	121	8 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	121	40	38	34	31	45	42	40	42	34	39	39	33	31	34	31	33	32
45288	NC9A	RES	122	10 DORAL GR, LUDDENHAM NSW 2745	122	40	41	36	33	46	44	41	43	36	44	41	35	33	36	33	35	34
45306	NC9A	RES	125	12 DORAL GR, LUDDENHAM NSW 2745	125	40	40	35	32	44	41	39	41	33	39	39	30	33	31	34	31	32
45312	NC9A	RES	126	3 DORAL GR, LUDDENHAM NSW 2745	126	40	41	36	33	46	44	42	44	36	40	41	34	33	36	33	34	34
45325	NC9A	RES	127	4 DORAL GR, LUDDENHAM NSW 2745	127	40	38	34	31	46	44	42	44	36	40	41	34	33				

45822	NCA10	RES	167	9 FARMINGDALE CT, LUDDENHAM NSW 2745	167	40	32	27	24	36	34	32	34	27	44	40	34	32	35	32	34	33	
45845	NCA10	RES	169	10 GANTON WAY, LUDDENHAM NSW 2745	169	40	33	29	26	39	36	34	36	29	43	42	35	34	37	34	35	35	
45880	NCA10	RES	170	12 GANTON WAY, LUDDENHAM NSW 2745	170	40	36	31	28	40	39	36	38	31	44	42	36	34	37	34	36	35	
45898	NCA10	RES	171	16 GANTON WAY, LUDDENHAM NSW 2745	171	40	35	31	28	40	38	36	37	30	44	42	35	34	37	34	36	35	
45938	NCA10	RES	172	18 GANTON WAY, LUDDENHAM NSW 2745	172	40	35	31	28	40	38	36	37	30	44	42	36	34	37	34	36	35	
45970	NCA10	RES	174	2 GANTON WAY, LUDDENHAM NSW 2745	174	40	36	32	29	41	39	36	38	31	40	39	32	30	34	31	32	31	
45989	NCA10	RES	176	4 GANTON WAY, LUDDENHAM NSW 2745	176	40	36	31	28	40	39	36	38	31	42	40	33	32	35	32	34	33	
46030	NCA10	RES	178	6 GANTON WAY, LUDDENHAM NSW 2745	178	40	34	29	26	41	39	37	38	31	41	42	35	33	37	34	35	34	
46039	NCA10	RES	179	8 GANTON WAY, LUDDENHAM NSW 2745	179	40	33	29	26	38	36	34	36	29	43	42	35	34	37	34	35	34	
46076	NCA10	RES	182	10 HALMSTAD BVD, LUDDENHAM NSW 2745	182	40	36	31	28	41	39	37	39	32	41	41	35	33	36	33	35	34	
46105	NCA10	RES	185	11 HALMSTAD BVD, LUDDENHAM NSW 2745	185	40	37	32	29	43	41	39	40	33	43	43	37	35	38	35	37	36	
46111	NCA10	RES	186	12 HALMSTAD BVD, LUDDENHAM NSW 2745	186	40	36	31	28	43	41	39	40	33	42	42	35	34	37	34	35	35	
46141	NCA10	RES	189	13 HALMSTAD BVD, LUDDENHAM NSW 2745	189	40	39	34	31	44	43	40	42	35	43	44	37	36	39	36	37	37	
46178	NCA10	RES	191	14 HALMSTAD BVD, LUDDENHAM NSW 2745	191	40	34	29	26	40	38	36	38	31	43	42	36	34	37	34	36	35	
46208	NCA10	RES	193	15 HALMSTAD BVD, LUDDENHAM NSW 2745	193	40	36	31	28	42	40	38	39	32	44	43	37	35	38	35	37	36	
46252	NCA10	RES	196	19 HALMSTAD BVD, LUDDENHAM NSW 2745	196	40	35	31	28	44	39	37	39	32	44	44	37	35	39	35	37	36	
46260	NCA10	RES	198	20 HALMSTAD BVD, LUDDENHAM NSW 2745	198	40	34	30	27	39	38	35	37	30	42	42	35	34	37	34	36	35	
46296	NCA10	RES	200	22 HALMSTAD BVD, LUDDENHAM NSW 2745	200	40	34	29	26	41	37	35	37	30	47	43	36	34	38	35	36	35	
46323	NCA10	RES	201	23 HALMSTAD BVD, LUDDENHAM NSW 2745	201	40	37	33	30	43	42	40	42	35	47	46	40	38	41	38	40	39	
46329	NCA10	RES	203	24 HALMSTAD BVD, LUDDENHAM NSW 2745	203	40	34	29	26	38	37	34	36	29	43	41	34	32	36	33	34	33	
46355	NCA10	RES	205	25 HALMSTAD BVD, LUDDENHAM NSW 2745	205	40	35	30	27	40	38	36	38	31	45	44	37	36	39	36	37	37	
46393	NCA10	RES	207	26 HALMSTAD BVD, LUDDENHAM NSW 2745	207	40	34	29	26	38	36	34	36	29	44	41	35	33	36	33	35	34	
46420	NCA10	RES	209	27 HALMSTAD BVD, LUDDENHAM NSW 2745	209	40	35	30	27	42	40	38	40	32	46	45	39	37	40	37	39	38	
46447	NCA10	RES	212	28 HALMSTAD BVD, LUDDENHAM NSW 2745	212	40	33	29	26	38	36	34	36	29	44	40	33	32	35	32	34	33	
46454	NCA10	RES	213	3 HALMSTAD BVD, LUDDENHAM NSW 2745	213	40	40	35	32	46	44	42	43	36	45	45	39	37	40	37	39	38	
46475	NCA10	RES	214	39 HALMSTAD BVD, LUDDENHAM NSW 2745	214	40	35	31	28	39	38	35	37	30	47	43	36	34	38	35	36	35	
46521	NCA10	RES	216	4 HALMSTAD BVD, LUDDENHAM NSW 2745	216	40	39	34	31	45	42	40	42	35	40	41	34	32	36	33	34	33	
46529	NCA10	RES	218	5 HALMSTAD BVD, LUDDENHAM NSW 2745	218	40	37	33	30	45	44	41	43	36	44	45	38	36	40	37	38	37	
46553	NCA10	RES	219	7 HALMSTAD BVD, LUDDENHAM NSW 2745	219	40	39	35	32	45	44	41	43	36	43	43	37	35	38	36	37	36	
46586	NCA10	RES	222	8 HALMSTAD BVD, LUDDENHAM NSW 2745	222	40	36	31	28	42	40	37	39	32	43	44	37	35	39	36	37	36	
46614	NCA10	RES	223	1 HUMEWOOD PL, LUDDENHAM NSW 2745	223	40	37	33	30	42	40	38	40	32	43	42	36	34	37	34	36	35	
46616	NCA10	RES	224	10 HUMEWOOD PL, LUDDENHAM NSW 2745	224	40	34	29	26	40	39	36	38	31	42	42	35	33	37	34	35	34	
46666	NCA10	RES	229	11 HUMEWOOD PL, LUDDENHAM NSW 2745	229	40	34	29	26	39	37	35	36	29	41	40	34	32	35	32	34	33	
46670	NCA10	RES	230	12 HUMEWOOD PL, LUDDENHAM NSW 2745	230	40	37	32	29	42	41	38	40	33	45	44	38	36	39	36	38	37	
46692	NCA10	RES	231	14 HUMEWOOD PL, LUDDENHAM NSW 2745	231	40	37	33	30	42	40	38	40	33	45	42	35	33	37	34	35	34	
46716	NCA10	RES	232	15 HUMEWOOD PL, LUDDENHAM NSW 2745	232	40	34	29	26	39	38	35	37	30	45	43	37	35	38	35	37	36	
46778	NCA10	RES	236	2 HUMEWOOD PL, LUDDENHAM NSW 2745	236	40	32	28	25	39	38	35	37	30	40	40	33	32	35	32	33	33	
46784	NCA10	RES	237	22 HUMEWOOD PL, LUDDENHAM NSW 2745	237	40	34	29	26	38	37	34	36	29	45	41	35	33	36	33	35	34	
46832	NCA10	RES	241	24 HUMEWOOD PL, LUDDENHAM NSW 2745	241	40	33	29	26	38	36	34	35	28	45	44	34	32	36	33	34	34	
46835	NCA10	RES	242	3 HUMEWOOD PL, LUDDENHAM NSW 2745	242	40	34	30	27	39	37	35	37	30	38	38	32	30	33	31	32	32	
46879	NCA10	RES	244	4 HUMEWOOD PL, LUDDENHAM NSW 2745	244	40	35	31	28	40	38	36	38	31	43	41	34	32	36	33	34	33	
46883	NCA10	RES	246	5 HUMEWOOD PL, LUDDENHAM NSW 2745	246	40	29	24	21	39	38	35	37	30	43	42	36	34	37	34	36	35	
46926	NCA10	RES	250	6 HUMEWOOD PL, LUDDENHAM NSW 2745	250	40	33	30	27	40	43	41	38	40	33	44	41	35	33	36	33	35	34
46940	NCA10	RES	252	7 HUMEWOOD PL, LUDDENHAM NSW 2745	252	40	34	30	27	39	37	35	37	30	41	40	34	32	35	32	34	33	
46986	NCA10	RES	256	9 HUMEWOOD PL, LUDDENHAM NSW 2745	256	40	36	32	29	42	40	38	39	32	42	41	34	32	36	32	34	33	
46994	NCA10	RES	258	336-348 LUDDENHAM RD, LUDDENHAM NSW 2745	258	40	41	37	34	41	38	36	38	31	42	42	34	33	36	33	34	34	
47000	NCA10	RES	265	339-363 LUDDENHAM RD, LUDDENHAM NSW 2745	265	40	43	38	35	42	39	37	39	32	43	43	36	34	38	35	36	35	
47005	NCA10	RES	275	405-423 LUDDENHAM RD, LUDDENHAM NSW 2745	275	40	48	44	41	47	45	42	44	37	48	48	42	40	43	40	42	41	
47015	NCA10	RES	279	425-441 LUDDENHAM RD, LUDDENHAM NSW 2745	279	40	45	41	38	52	49	46	48	41	47	47	39	37	41	38	40	39	
47023	NCA10	RES	288	425A LUDDENHAM RD, LUDDENHAM NSW 2745	288	40	49	44	41	56	52	50	52	45	48	48	42	40	43	41	42	41	
47046	NCA10	RES	292	443-457 LUDDENHAM RD, LUDDENHAM NSW 2745	292	40	54	49	46	58	55	53	55	48	53	53	47	45	48	45	47	46	
47067	NCA10	RES	302	611-639 LUDDENHAM RD, LUDDENHAM NSW 2745	302	40	35	32	24	44	43	40	42	35	55	56	49	48	51	48	49	49	
47073	NCA10	RES	304	611A LUDDENHAM RD, LUDDENHAM NSW 2745	304	40	39	34	31	43	41	39	41	34	53	53	46	45	48	45	46	46	
47077	NCA10	RES	308	641-675 LUDDENHAM RD, LUDDENHAM NSW 2745	308	40	36	31	28	38	37	34	36	29	45	45	39	37	40	37	39	38	
47101	NCA10	RES	311	644-652 LUDDENHAM RD, LUDDENHAM NSW 2745	311	40	38	33	30	43	41	39	41	34	57	58	51	50	53	50	52	51	
47107	NCA10	RES	314	654-658 LUDDENHAM RD, LUDDENHAM NSW 2745	314	40	37	33	30	42	41	38	40	33	55	55	49	47	50	48	49	48	
47112	NCA10	RES	319	660-670 LUDDENHAM RD, LUDDENHAM NSW 2745	319	40	36	31	28	40	38	36	38	31	49	49	43	41	45	42	43	42	
47118	NCA10	RES	321	672-686 LUDDENHAM RD, LUDDENHAM NSW 2745	321	40	35	30	27	39	37	35	36	29	48	48	42	40	43	40	42	41	
47167	NCA10	RES	329	677-691 LUDDENHAM RD, LUDDENHAM NSW 2745	329	40	35	31	28	38	37	34	36	29	48	49	42	41	44	41	42	42	
47196	NCA10	RES	335	688-708 LUDDENHAM RD, LUDDENHAM NSW 2745	335	40	34	29	26	37	35	33	35	28	45	45	39	37	40	37	39	38	
47243	NCA10	RES	345	693-711 LUDDENHAM RD, LUDDENHAM NSW 2745	345	40	26	22	19	36	35	32	34	27	42	42	36	34	37	34	36	35	
47276	NCA10	RES	350	2179A ELIZABETH DR, LUDDENHAM NSW 2745	356	40	26	22	19	26	25	22	24	17	30	30	24	22	25	22	24	23	
47286	NCA10	RES	351	710-732 LUDDENHAM RD, LUDDENHAM NSW 2745	351	40	32	28	25	35	33	31	33	25	42	42	35	34	37	34	35	35	
47299	NCA10	RES	352	713-733 LUDDENHAM RD, LUDDENHAM NSW 2745	352	40	35	30	27	37	35	33	35	28	43	43	37	35	38	35	37	36	
47307	NCA10	RES	354	2207-2223 ELIZABETH DR, LUDDENHAM NSW 2745	357	40	38	32	29	46	44	42	40	33	46	46	39	37	40	37	39	38	
47315	NCA10	RES	355	734 LUDDENHAM RD, LUDDENHAM NSW 2745	355	40	23	19	16	24	22												

47797	NCA10	RES	448	15 MEDINAH AV, LUDDENHAM NSW 2745	448	40	36	31	28	38	36	34	36	28	34	35	28	26	30	27	29	28
47814	NCA10	RES	450	16 MEDINAH AV, LUDDENHAM NSW 2745	450	40	38	34	31	27	25	23	25	18	38	38	31	30	33	30	31	31
47815	NCA10	RES	450	16 MEDINAH AV, LUDDENHAM NSW 2745	450	40	26	21	18	41	39	37	39	32	33	33	26	25	28	25	27	26
47842	NCA10	RES	451	17 MEDINAH AV, LUDDENHAM NSW 2745	451	40	32	27	24	38	36	34	35	28	34	34	27	26	29	26	27	27
47878	NCA10	RES	453	19 MEDINAH AV, LUDDENHAM NSW 2745	453	40	38	33	30	41	39	36	38	31	37	37	31	29	32	29	31	30
47895	NCA10	RES	454	1A MEDINAH AV, LUDDENHAM NSW 2745	454	40	40	36	33	43	41	39	40	33	40	40	33	32	35	32	33	33
47923	NCA10	RES	455	2 MEDINAH AV, LUDDENHAM NSW 2745	455	40	40	36	33	41	39	36	38	31	39	40	33	31	35	32	33	33
47946	NCA10	RES	456	21 MEDINAH AV, LUDDENHAM NSW 2745	456	40	35	30	27	38	36	34	36	28	34	34	28	26	29	26	28	27
47960	NCA10	RES	457	23 MEDINAH AV, LUDDENHAM NSW 2745	457	40	35	30	27	38	36	34	36	28	34	34	28	26	29	26	28	27
47978	NCA10	RES	458	24 MEDINAH AV, LUDDENHAM NSW 2745	458	40	36	31	28	42	40	37	39	32	37	37	31	29	33	30	31	30
48020	NCA10	RES	460	25 MEDINAH AV, LUDDENHAM NSW 2745	460	40	35	30	27	38	36	33	35	28	34	34	27	26	29	26	28	27
48053	NCA10	RES	462	26 MEDINAH AV, LUDDENHAM NSW 2745	462	40	35	31	28	39	37	35	36	29	37	37	28	27	30	27	28	28
48060	NCA10	RES	463	27 MEDINAH AV, LUDDENHAM NSW 2745	463	40	35	30	27	38	36	34	36	29	34	34	28	26	29	26	28	27
48099	NCA10	RES	464	29 MEDINAH AV, LUDDENHAM NSW 2745	464	40	37	33	30	41	39	36	38	31	36	37	30	28	32	29	30	29
48125	NCA10	RES	466	3 MEDINAH AV, LUDDENHAM NSW 2745	466	40	37	33	30	40	38	35	37	30	36	37	30	28	32	29	30	29
48135	NCA10	RES	467	31 MEDINAH AV, LUDDENHAM NSW 2745	467	40	34	30	27	38	36	34	36	28	34	34	28	26	29	26	28	27
48155	NCA10	RES	468	4 MEDINAH AV, LUDDENHAM NSW 2745	468	40	37	32	29	41	38	36	38	31	36	37	30	28	32	29	30	30
48173	NCA10	RES	470	5 MEDINAH AV, LUDDENHAM NSW 2745	470	40	37	32	29	40	38	35	37	30	36	37	30	28	32	29	30	29
48197	NCA10	RES	471	6 MEDINAH AV, LUDDENHAM NSW 2745	471	40	40	35	32	43	40	38	40	33	39	39	33	31	34	31	33	32
48209	NCA10	RES	473	7 MEDINAH AV, LUDDENHAM NSW 2745	473	40	39	35	32	42	40	37	39	32	38	39	32	30	34	31	32	31
48248	NCA10	RES	474	8 MEDINAH AV, LUDDENHAM NSW 2745	474	40	40	35	32	43	41	39	41	34	39	39	33	31	34	32	33	32
48254	NCA10	RES	475	9 MEDINAH AV, LUDDENHAM NSW 2745	475	40	36	31	28	39	36	34	36	29	35	36	29	27	31	28	29	28
48282	NCA10	RES	477	10 PENNARD CR, LUDDENHAM NSW 2745	477	40	37	32	29	43	41	39	40	33	39	39	33	31	34	31	33	32
48306	NCA10	RES	480	11 PENNARD CR, LUDDENHAM NSW 2745	480	40	36	32	29	43	40	38	40	33	38	38	32	30	33	30	32	31
48361	NCA10	RES	482	12 PENNARD CR, LUDDENHAM NSW 2745	482	40	37	32	29	42	39	37	39	32	37	37	30	29	32	29	31	30
48372	NCA10	RES	483	14 PENNARD CR, LUDDENHAM NSW 2745	483	40	39	34	31	44	42	39	41	34	39	39	33	31	34	31	33	32
48393	NCA10	RES	486	15 PENNARD CR, LUDDENHAM NSW 2745	486	40	36	32	29	40	38	35	37	30	35	36	29	27	31	28	29	28
48426	NCA10	RES	488	16 PENNARD CR, LUDDENHAM NSW 2745	488	40	39	34	31	44	41	39	41	34	40	40	33	31	35	32	33	32
48460	NCA10	RES	490	2 PENNARD CR, LUDDENHAM NSW 2745	490	40	37	33	30	42	39	37	39	32	38	38	31	30	33	30	32	31
48482	NCA10	RES	492	3 PENNARD CR, LUDDENHAM NSW 2745	492	40	37	33	30	41	39	36	38	31	36	37	30	28	32	29	30	29
48548	NCA10	RES	497	4 PENNARD CR, LUDDENHAM NSW 2745	497	40	37	32	29	40	38	35	37	30	37	38	31	29	33	30	31	30
48563	NCA10	RES	498	5 PENNARD CR, LUDDENHAM NSW 2745	498	40	37	32	29	41	39	36	38	31	36	37	30	28	31	28	30	29
48581	NCA10	RES	500	6 PENNARD CR, LUDDENHAM NSW 2745	500	40	37	33	30	42	39	37	39	32	36	37	30	28	32	29	30	29
48608	NCA10	RES	503	7 PENNARD CR, LUDDENHAM NSW 2745	503	40	37	32	29	41	38	36	38	31	36	36	30	28	31	28	30	29
48623	NCA10	RES	504	8 PENNARD CR, LUDDENHAM NSW 2745	504	40	39	35	32	44	42	39	41	34	39	39	33	31	34	31	33	32
48651	NCA10	RES	505	9 PENNARD CR, LUDDENHAM NSW 2745	505	40	36	32	29	40	38	36	38	30	36	36	29	28	31	28	30	29
48667	NCA10	RES	507	10 PINE VALLEY CR, LUDDENHAM NSW 2745	507	40	36	32	29	40	37	35	37	30	37	37	31	29	32	29	31	30
48708	NCA10	RES	510	11 PINE VALLEY CR, LUDDENHAM NSW 2745	510	40	37	32	29	42	40	37	39	32	38	39	31	30	33	30	31	31
48716	NCA10	RES	511	12 PINE VALLEY CR, LUDDENHAM NSW 2745	511	40	38	34	31	42	39	37	39	32	37	38	31	29	33	30	31	30
48738	NCA10	RES	512	13 PINE VALLEY CR, LUDDENHAM NSW 2745	512	40	38	34	31	45	40	38	40	33	38	38	32	30	33	30	32	31
48756	NCA10	RES	513	15 PINE VALLEY CR, LUDDENHAM NSW 2745	513	40	35	31	28	40	38	35	37	30	37	38	31	29	33	30	31	30
48770	NCA10	RES	514	17 PINE VALLEY CR, LUDDENHAM NSW 2745	514	40	36	31	28	42	39	37	39	32	37	38	31	29	33	30	31	30
48809	NCA10	RES	516	2 PINE VALLEY CR, LUDDENHAM NSW 2745	516	40	39	35	32	42	40	38	39	32	38	39	32	30	34	31	32	32
48821	NCA10	RES	517	3 PINE VALLEY CR, LUDDENHAM NSW 2745	517	40	37	33	30	43	41	38	40	33	38	38	32	30	33	30	32	31
48855	NCA10	RES	519	4 PINE VALLEY CR, LUDDENHAM NSW 2745	519	40	39	35	32	40	38	35	37	30	38	39	32	30	34	31	32	32
48871	NCA10	RES	520	5 PINE VALLEY CR, LUDDENHAM NSW 2745	520	40	40	35	32	43	40	38	39	32	39	39	33	31	34	31	33	32
48894	NCA10	RES	522	6 PINE VALLEY CR, LUDDENHAM NSW 2745	522	40	37	32	29	40	38	35	37	30	37	37	29	28	31	28	30	29
48907	NCA10	RES	524	7 PINE VALLEY CR, LUDDENHAM NSW 2745	524	40	39	35	32	43	41	38	40	33	39	39	32	31	34	31	33	32
48921	NCA10	RES	525	8 PINE VALLEY CR, LUDDENHAM NSW 2745	525	40	36	32	29	40	37	35	37	30	35	36	29	28	31	28	29	29
48943	NCA10	RES	527	9 PINE VALLEY CR, LUDDENHAM NSW 2745	527	40	39	35	32	41	38	36	38	31	38	39	32	31	34	31	32	32
48950	NCA10	RES	528	1 PORTRUSH CR, LUDDENHAM NSW 2745	528	40	43	38	35	50	47	45	46	39	43	44	37	35	39	36	37	36
48993	NCA10	RES	532	10 PORTRUSH CR, LUDDENHAM NSW 2745	532	40	42	37	34	46	44	41	43	36	41	41	35	33	36	33	35	34
49002	NCA10	RES	533	11 PORTRUSH CR, LUDDENHAM NSW 2745	533	40	42	37	34	54	50	48	50	43	45	45	38	37	40	37	38	38
49036	NCA10	RES	537	12 PORTRUSH CR, LUDDENHAM NSW 2745	537	40	42	27	24	41	39	37	38	31	41	41	34	33	36	33	35	34
49088	NCA10	RES	539	13 PORTRUSH CR, LUDDENHAM NSW 2745	539	40	45	41	38	53	49	47	49	42	45	45	39	37	40	37	39	38
49106	NCA10	RES	540	14 PORTRUSH CR, LUDDENHAM NSW 2745	540	40	41	37	34	47	45	42	44	37	40	41	34	33	36	33	34	34
49154	NCA10	RES	545	15 PORTRUSH CR, LUDDENHAM NSW 2745	545	40	43	39	36	53	50	48	49	42	44	44	37	35	39	36	38	37
49169	NCA10	RES	546	16 PORTRUSH CR, LUDDENHAM NSW 2745	546	40	34	29	26	48	45	43	45	38	41	42	35	33	37	34	36	35
49243	NCA10	RES	552	17 PORTRUSH CR, LUDDENHAM NSW 2745	552	40	43	39	36	55	52	50	52	45	44	44	37	35	39	38	39	38
49271	NCA10	RES	555	18 PORTRUSH CR, LUDDENHAM NSW 2745	555	40	44	40	37	49	46	44	46	38	43	43	37	35	39	36	37	36
49277	NCA10	RES	557	19 PORTRUSH CR, LUDDENHAM NSW 2745	557	40	47	42	39	57	54	51	53	46	46	47	40	38	42	39	40	39
49304	NCA10	RES	559	2 PORTRUSH CR, LUDDENHAM NSW 2745	559	40	45	40	37	48	45	43	45	38	44	44	38	36	39	36	38	37
49338	NCA10	RES	561	21 PORTRUSH CR, LUDDENHAM NSW 2745	561	40	49	39	36	56	52	50	52	44	45	46	39	38	41	38	39	39
49376	NCA10	RES	562	22 PORTRUSH CR, LUDDENHAM NSW 2745	562	40	44	40	37	50	47	45	47	39	43	44	37	36	39	36	37	37
49401	NCA10	RES	565	23 PORTRUSH CR, LUDDENHAM NSW 2745	565	40	43	39	36	54	51	48	50	43	45	45	39	37	40	37	39	38
49440	NCA10	RES	569	24 PORTRUSH CR, LUDDENHAM NSW 2745	569	40	40	35	32	49	45	42	44	37	43	41	35	33	36	34	35	34
49451	NCA10	RES	570	26 PORTRUSH CR, LUDDENHAM NSW 2745	570	40	44	39														

50050	NCA10	RES	617	66	PORTRUSH CR, LUDDENHAM NSW 2745	617	40	46	41	38	50	47	44	46	39	45	45	39	37	40	37	39	38
50071	NCA10	RES	618	68	PORTRUSH CR, LUDDENHAM NSW 2745	618	40	43	39	36	50	47	44	46	39	43	44	37	35	39	36	37	36
50108	NCA10	RES	620	8	PORTRUSH CR, LUDDENHAM NSW 2745	620	40	42	37	34	47	44	42	43	36	41	41	35	33	36	33	35	34
50134	NCA10	RES	622	11	TWIN CREEKS DR, LUDDENHAM NSW 2745	622	40	37	33	30	41	39	37	38	31	39	39	33	31	34	31	33	32
50185	NCA10	RES	626	13	TWIN CREEKS DR, LUDDENHAM NSW 2745	626	40	37	33	30	42	40	37	39	32	38	38	31	30	33	30	31	31
50196	NCA10	RES	627	14	TWIN CREEKS DR, LUDDENHAM NSW 2745	627	40	40	36	33	44	42	40	41	34	40	40	33	32	35	32	34	33
50249	NCA10	RES	632	15	TWIN CREEKS DR, LUDDENHAM NSW 2745	632	40	37	33	30	44	42	40	41	34	39	39	33	31	34	31	33	32
50271	NCA10	RES	635	17	TWIN CREEKS DR, LUDDENHAM NSW 2745	635	40	38	33	30	44	42	40	42	35	39	40	33	32	35	32	33	33
50317	NCA10	RES	636	18	TWIN CREEKS DR, LUDDENHAM NSW 2745	636	40	40	36	33	46	42	40	42	35	40	41	34	33	36	33	34	34
50325	NCA10	RES	643	20	TWIN CREEKS DR, LUDDENHAM NSW 2745	643	40	38	33	30	42	40	37	39	32	37	37	31	29	32	29	31	30
50341	NCA10	RES	644	21	TWIN CREEKS DR, LUDDENHAM NSW 2745	644	40	37	33	30	43	40	38	40	33	37	38	31	29	33	30	31	30
50383	NCA10	RES	648	22	TWIN CREEKS DR, LUDDENHAM NSW 2745	648	40	40	36	33	45	42	40	42	35	39	40	33	32	35	32	33	33
50403	NCA10	RES	652	24	TWIN CREEKS DR, LUDDENHAM NSW 2745	652	40	41	36	33	43	41	39	40	33	40	40	33	32	35	32	34	33
50439	NCA10	RES	653	26	TWIN CREEKS DR, LUDDENHAM NSW 2745	653	40	40	35	32	46	43	41	43	36	40	40	34	32	35	32	34	33
50480	NCA10	RES	655	27	TWIN CREEKS DR, LUDDENHAM NSW 2745	655	40	33	28	25	43	41	39	41	33	41	40	33	31	35	32	33	32
50506	NCA10	RES	657	28	TWIN CREEKS DR, LUDDENHAM NSW 2745	657	40	38	34	31	46	44	42	44	37	41	41	35	33	36	33	35	34
50521	NCA10	RES	658	29	TWIN CREEKS DR, LUDDENHAM NSW 2745	658	40	38	33	30	44	42	40	41	34	42	42	35	34	37	34	36	35
50546	NCA10	RES	661	30	TWIN CREEKS DR, LUDDENHAM NSW 2745	661	40	38	33	30	43	41	39	41	33	39	39	32	30	34	31	32	32
50575	NCA10	RES	663	31	TWIN CREEKS DR, LUDDENHAM NSW 2745	663	40	38	33	30	44	42	39	41	34	40	40	34	32	35	32	34	33
50595	NCA10	RES	666	32	TWIN CREEKS DR, LUDDENHAM NSW 2745	666	40	41	36	33	46	44	42	43	36	40	41	34	33	36	33	34	34
50638	NCA10	RES	669	33	TWIN CREEKS DR, LUDDENHAM NSW 2745	669	40	37	32	29	43	41	39	40	33	40	40	33	32	35	32	33	33
50668	NCA10	RES	672	34	TWIN CREEKS DR, LUDDENHAM NSW 2745	672	40	40	35	32	45	43	41	43	36	42	42	35	34	37	34	36	35
50692	NCA10	RES	673	35	TWIN CREEKS DR, LUDDENHAM NSW 2745	673	40	39	35	32	45	43	41	43	36	42	43	36	34	38	35	36	35
50741	NCA10	RES	676	36	TWIN CREEKS DR, LUDDENHAM NSW 2745	676	40	38	33	30	44	41	39	41	34	38	39	32	30	34	31	32	31
50746	NCA10	RES	677	37	TWIN CREEKS DR, LUDDENHAM NSW 2745	677	40	36	31	28	42	40	38	40	32	40	40	33	31	35	32	33	32
50778	NCA10	RES	682	38	TWIN CREEKS DR, LUDDENHAM NSW 2745	682	40	41	36	33	45	43	40	42	35	41	41	34	32	36	33	34	33
50806	NCA10	RES	683	39	TWIN CREEKS DR, LUDDENHAM NSW 2745	683	40	36	32	29	42	40	38	39	32	40	40	34	32	35	32	34	33
50827	NCA10	RES	684	40	TWIN CREEKS DR, LUDDENHAM NSW 2745	684	40	39	34	31	47	45	43	45	38	43	44	37	35	39	36	37	36
50864	NCA10	RES	688	42	TWIN CREEKS DR, LUDDENHAM NSW 2745	688	40	39	34	31	47	45	43	45	38	43	43	37	35	38	35	37	36
50903	NCA10	RES	692	43	TWIN CREEKS DR, LUDDENHAM NSW 2745	692	40	37	33	30	44	42	40	42	35	42	41	34	33	36	33	34	34
50921	NCA10	RES	694	44	TWIN CREEKS DR, LUDDENHAM NSW 2745	694	40	39	35	32	47	45	43	45	38	43	44	37	35	39	36	37	36
50955	NCA10	RES	696	45	TWIN CREEKS DR, LUDDENHAM NSW 2745	696	40	36	31	28	43	40	38	40	32	44	41	34	32	36	33	34	33
51001	NCA10	RES	699	47	TWIN CREEKS DR, LUDDENHAM NSW 2745	699	40	35	31	28	40	38	36	38	31	39	39	33	31	34	31	33	32
51019	NCA10	RES	700	48	TWIN CREEKS DR, LUDDENHAM NSW 2745	700	40	40	36	33	47	45	43	45	38	44	44	38	36	39	36	37	36
51029	NCA10	RES	702	49	TWIN CREEKS DR, LUDDENHAM NSW 2745	702	40	32	27	24	40	38	36	37	30	39	37	31	29	32	29	31	30
51054	NCA10	RES	704	5	TWIN CREEKS DR, LUDDENHAM NSW 2745	704	40	38	33	30	41	39	36	38	31	37	37	31	29	32	29	31	30
51076	NCA10	RES	705	50	TWIN CREEKS DR, LUDDENHAM NSW 2745	705	40	39	35	32	48	46	43	45	38	44	45	38	36	40	37	38	37
51099	NCA10	RES	708	51	TWIN CREEKS DR, LUDDENHAM NSW 2745	708	40	33	28	25	41	39	37	39	32	42	42	35	33	37	34	35	34
51160	NCA10	RES	710	52	TWIN CREEKS DR, LUDDENHAM NSW 2745	710	40	40	35	32	45	44	41	43	36	43	43	37	35	38	35	37	36
51171	NCA10	RES	712	53	TWIN CREEKS DR, LUDDENHAM NSW 2745	712	40	34	29	26	39	37	35	37	30	41	41	35	33	36	33	35	34
51216	NCA10	RES	716	54	TWIN CREEKS DR, LUDDENHAM NSW 2745	716	40	33	28	25	43	41	38	40	33	41	41	34	32	36	33	34	33
51244	NCA10	RES	719	55	TWIN CREEKS DR, LUDDENHAM NSW 2745	719	40	34	30	27	39	37	35	37	30	39	39	32	30	34	31	32	31
51271	NCA10	RES	721	58	TWIN CREEKS DR, LUDDENHAM NSW 2745	721	40	38	34	31	44	42	40	42	35	43	43	37	35	38	35	37	36
51286	NCA10	RES	722	62	TWIN CREEKS DR, LUDDENHAM NSW 2745	722	40	36	31	28	41	39	37	39	32	43	43	36	35	38	35	37	36
51343	NCA10	RES	728	64	TWIN CREEKS DR, LUDDENHAM NSW 2745	728	40	37	33	30	43	41	39	41	34	41	42	35	33	37	34	35	34
51378	NCA10	RES	731	7	TWIN CREEKS DR, LUDDENHAM NSW 2745	731	40	37	33	30	41	39	37	38	31	37	37	30	29	32	29	31	30
51391	NCA10	RES	732	9	TWIN CREEKS DR, LUDDENHAM NSW 2745	732	40	39	35	32	44	41	39	41	34	39	39	33	31	34	31	33	32
51422	NCA10	RES	736	1	VENTANA CT, LUDDENHAM NSW 2745	736	40	38	34	31	45	43	40	42	35	43	43	37	35	38	35	37	36
51444	NCA10	RES	737	2	VENTANA CT, LUDDENHAM NSW 2745	737	40	38	34	31	45	43	41	42	35	43	44	37	35	38	36	37	36
51458	NCA10	RES	738	2	VENTANA CT, LUDDENHAM NSW 2745	738	40	41	36	33	47	43	40	42	35	43	44	37	35	39	36	37	36
51477	NCA10	RES	740	3	VENTANA CT, LUDDENHAM NSW 2745	740	40	38	33	30	44	42	40	42	35	45	44	38	36	39	36	38	37
51487	NCA10	RES	741	4	VENTANA CT, LUDDENHAM NSW 2745	741	40	42	37	34	49	47	44	46	39	42	42	36	34	37	34	36	35
51518	NCA10	RES	743	5	VENTANA CT, LUDDENHAM NSW 2745	743	40	39	34	31	46	44	41	43	36	45	45	38	37	40	37	38	38
51534	NCA10	RES	744	6	VENTANA CT, LUDDENHAM NSW 2745	744	40	35	32	48	45	43	45	38	44	43	37	35	38	35	37	36	
51589	NCA10	RES	748	7	VENTANA CT, LUDDENHAM NSW 2745	748	40	39	34	31	45	43	41	43	36	42	43	36	34	38	35	36	35
51598	NCA10	RES	749	1	WOODHALL PL, LUDDENHAM NSW 2745	749	40	37	33	30	43	41	38	40	33	40	41	34	32	36	33	34	33
51622	NCA10	RES	752	11	WOODHALL PL, LUDDENHAM NSW 2745	752	40	36	31	28	43	41	39	41	34	39	40	33	31	35	32	33	32
51649	NCA10	RES	753	13	WOODHALL PL, LUDDENHAM NSW 2745	753	40	37	32	29	43	41	39	40	33	40	40	34	32	35	32	34	33
51671	NCA10	RES	754	15	WOODHALL PL, LUDDENHAM NSW 2745	754	40	35	31	28	41	38	36	38	31	38	38	31	29	33	30	31	31
51736	NCA10	RES	756	17	WOODHALL PL, LUDDENHAM NSW 2745	756	40	35	31	28	42	40	38	40	33	40	40	34	32	35	32	34	33
51766	NCA10	RES	757	19	WOODHALL PL, LUDDENHAM NSW 2745	757	40	37	33	30	42	40	38	40	33	41	40	34	32	35	32	34	33
51782	NCA10	RES	760	2	WOODHALL PL, LUDDENHAM NSW 2745	760	40	37	32	29	43	41	39	41	34	40	40	34	32	35	32	34	33
51797	NCA10	RES	761	3	WOODHALL PL, LUDDENHAM NSW 2745	761	40	37	33	30	42	40	38	40	33	40	41	34	32	36	33	34	33
51820	NCA10	RES	763	4	WOODHALL PL, LUDDENHAM NSW 2745	763	40	37	32	29	42	40	37	39	32	40	37	31	29	32	30	31	30
51855	NCA10	RES	765	5	WOODHALL PL, LUDDENHAM NSW 2745	765	40	39	35	32	45	43											

Predicted OOH Evening construction noise levels				Residential colour code additional mitigation measures: 0 to 10 dB: LB 10 to 20 dB: LB, M 20 to 30 dB: LB, M, SN, RO Greater than 30 dB: LB, M, SN, IB, PC, RO Bold = Highly noise affected																	
No.	NCA	Usage	Rec	Address	Unique ID	NML	Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 6	Activity 7	Activity 8	Activity 9	Activity 11	Activity 12	Activity 13	Activity 14	Activity 15	Activity 16	
41259	NCA9	RES	105	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5210	39	33	29	26	28	24	26	21	43	36	35	38	35	37	36	36
41326	NCA9	RES	128	182-200 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5233	39	36	31	28	31	27	28	19	43	37	35	38	35	36	37	36
41351	NCA9	RES	134	202-210 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5239	39	39	34	31	33	29	31	24	42	36	34	38	35	36	35	35
41364	NCA9	RES	135	212-214 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5240	39	35	31	28	32	28	29	22	42	36	34	38	35	36	36	36
41417	NCA9	RES	142	216 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5247	39	36	32	29	32	28	30	22	42	36	34	37	34	36	35	35
41445	NCA9	RES	174	COOLAMON 221-227 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5279	39	38	33	30	36	31	33	26	43	36	35	38	35	37	36	36
41466	NCA9	RES	224	222-224 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5329	39	37	32	29	33	28	30	23	42	35	34	37	34	36	35	35
41478	NCA9	RES	229	222B LUDDENHAM RD, ORCHARD HILLS NSW 2748	5333	39	37	32	29	34	30	32	25	45	38	37	40	37	39	38	38
41486	NCA9	RES	229	226-228 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5334	39	36	32	29	27	28	29	22	41	35	33	36	33	35	34	34
41506	NCA9	RES	234	229-231 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5339	39	41	37	34	37	32	34	27	46	40	38	42	39	40	39	39
41529	NCA9	RES	244	230-234 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5349	39	37	32	29	33	28	30	23	41	35	33	36	33	35	34	34
41536	NCA9	RES	246	233-249 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5351	39	38	34	31	35	30	32	25	45	39	37	41	38	39	38	38
41559	NCA9	RES	255	236-238 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5360	39	37	33	30	33	28	30	23	41	35	33	37	34	35	34	34
41564	NCA9	RES	256	240-244 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5361	39	23	19	16	23	19	21	14	41	35	33	36	33	35	34	34
41615	NCA9	RES	267	246-248 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5372	39	31	27	24	29	25	27	20	41	35	33	37	34	35	35	35
41621	NCA9	RES	268	250-254 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5373	39	36	32	29	34	29	31	24	40	34	32	35	32	34	33	33
41667	NCA9	RES	280	251-261 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5385	39	39	35	32	35	31	32	25	43	37	35	38	35	37	36	36
41695	NCA9	RES	282	256 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5387	39	37	33	30	34	29	31	24	43	36	35	38	35	36	36	36
41702	NCA9	RES	283	262-266 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5388	39	38	33	30	35	30	32	25	40	34	32	36	33	34	33	33
41727	NCA9	RES	290	263-273 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5395	39	39	34	31	36	31	33	26	44	38	37	40	37	38	38	38
41730	NCA9	RES	292	268-288 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5397	39	39	34	31	36	31	33	26	41	34	33	36	33	35	34	34
41740	NCA9	RES	297	275-285 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5402	39	38	34	31	35	31	33	26	43	37	35	39	36	37	36	36
41761	NCA9	RES	299	275A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5404	39	40	36	33	37	32	34	27	43	37	35	39	36	37	36	36
41798	NCA9	RES	305	287 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5410	39	40	36	33	39	35	37	29	43	36	35	38	35	36	36	36
41818	NCA9	RES	307	289-317 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5412	39	42	37	34	38	33	35	28	45	38	36	40	37	38	37	37
41841	NCA9	RES	309	31-39 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5414	39	27	23	20	23	19	20	13	35	28	27	30	27	29	28	28
41851	NCA9	RES	313	319-325 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5418	39	42	38	35	40	35	37	30	46	38	36	40	37	38	37	37
41887	NCA9	RES	319	320-326 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5424	39	41	36	33	39	34	36	29	42	34	33	36	33	35	34	34
41903	NCA9	RES	322	43A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5427	39	31	26	23	27	23	25	18	40	34	32	35	32	34	33	33
41951	NCA9	RES	344	573-577 MAMRE RD, ORCHARD HILLS NSW 2748	5449	39	30	26	23	28	24	25	18	33	26	25	28	25	26	26	26
41960	NCA9	RES	346	1-19 MANDALONG CL, ORCHARD HILLS NSW 2748	5451	39	30	25	22	27	22	24	17	35	29	27	30	28	29	28	28
41980	NCA9	RES	348	21A MANDALONG CL, ORCHARD HILLS NSW 2748	5453	39	32	28	25	30	25	27	20	35	29	27	30	27	29	28	28
42005	NCA9	RES	351	25-31 MANDALONG CL, ORCHARD HILLS NSW 2748	5456	39	30	25	22	27	23	25	18	34	28	26	29	26	28	27	27
42047	NCA9	RES	355	33-41 MANDALONG CL, ORCHARD HILLS NSW 2748	5460	39	30	26	23	28	23	25	18	34	28	26	29	26	28	27	27
42089	NCA9	RES	360	43-51 MANDALONG CL, ORCHARD HILLS NSW 2748	5465	39	31	26	23	28	24	26	18	35	29	27	30	27	29	28	28
42137	NCA9	RES	364	53-63 MANDALONG CL, ORCHARD HILLS NSW 2748	5469	39	31	27	24	29	24	26	19	35	29	28	31	28	29	29	29
42193	NCA9	RES	370	65-73 MANDALONG CL, ORCHARD HILLS NSW 2748	5475	39	32	27	24	29	25	27	19	36	30	28	31	28	30	29	29
42250	NCA9	RES	376	75-77 MANDALONG CL, ORCHARD HILLS NSW 2748	5481	39	35	30	27	32	28	30	22	39	33	31	35	32	33	32	32
42265	NCA9	RES	377	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5482	39	33	28	25	29	25	27	19	38	32	30	34	31	32	31	31
42347	NCA9	RES	392	83-91 MANDALONG CL, ORCHARD HILLS NSW 2748	5497	39	32	27	24	29	24	26	19	38	32	30	33	30	32	31	31
42396	NCA9	RES	755	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6271	39	33	29	26	27	24	26	19	33	27	25	29	26	27	26	26
44920	NCA10	RES	16	1669A ELIZABETH DR, BADGERYS CREEK NSW 2555	16	35	24	20	17	27	23	25	18	37	25	24	27	23	25	25	25
44940	NCA10	RES	52	1783-1789 ELIZABETH DR, BADGERYS CREEK NSW 2555	52	35	21	17	14	24	21	22	15	36	24	22	25	22	24	23	23
44958	NCA10	RES	82	1953-2109 ELIZABETH DR, BADGERYS CREEK NSW 2555	82	35	24	20	17	28	24	26	18	34	28	26	29	26	28	27	27
44980	NCA10	RES	97	707A MAMRE RD, KEMPS CREEK NSW 2178	97	35	35	31	28	36	31	33	26	35	29	27	31	28	29	28	28
45026	NCA10	RES	104	3 BRIDPORT PL, LUDDENHAM NSW 2745	104	35	33	28	25	38	34	36	29	48	39	37	40	37	39	38	38
45035	NCA10	RES	106	4 BRIDPORT PL, LUDDENHAM NSW 2745	106	35	34	30	27	42	38	39	32	47	40	38	41	38	40	39	39
45070	NCA10	RES	107	10 COMARGO LANE, LUDDENHAM NSW 2745	107	35	44	40	37	43	38	40	33	44	38	36	39	36	38	37	37
45085	NCA10	RES	108	2 COMARGO LANE, LUDDENHAM NSW 2745	108	35	41	36	33	42	37	39	31	40	34	32	35	32	34	33	33
45125	NCA10	RES	111	4 COMARGO LANE, LUDDENHAM NSW 2745	111	35	44	39	36	43	38	39	32	43	37	35	39	36	37	36	36
45138	NCA10	RES	112	6 COMARGO LANE, LUDDENHAM NSW 2745	112	35	42	37	34	45	40	42	35	42	35	33	37	34	35	34	34
45151	NCA10	RES	113	8 COMARGO LANE, LUDDENHAM NSW 2745	113	35	42	37	34	42	37	39	32	42	35	33	37	34	35	34	34
45165	NCA10	RES	114	2 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	114	35	38	34	31	43	38	40	33	38	31	30	33	30	31	31	31
45179	NCA10	RES	115	3 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	115	35	38	34	31	43	38	40	33	40	34	32	35	32	34	33	33
45206	NCA10	RES	116	4 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	116	35	38	34	31	45	38	40	33	41	35	33	37	34	35	34	34
45215	NCA10	RES	118	5 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	118	35	38	34	31	45	40	42	35	39	33	31	35	32	33	32	32
45238	NCA10	RES	119	6 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	119	35	41	36	33	45	40	42	35	40	34	32	35	32	34	33	33
45264	NCA10	RES	120	7 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	120	35	41	36	33	45	40	42	35	40	34	32	35	32	34	33	33
45275	NCA10	RES	121	8 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	121	35	38	34	31	45	40	42	34	39	33	31	34	31	33	32	32
45288	NCA10	RES	122	10 DORAL GR, LUDDENHAM NSW 2745	122	35	41	36	33	46	41	43	36	41	35	33	36	33	35	34	34
45306	NCA10	RES	125	11 DORAL GR, LUDDENHAM NSW 2745	125	35	40	35	32	44	39	41	33	39	33	31	34	31	33	32	32
45312	NCA10	RES	126	3 DORAL GR, LUDDENHAM NSW 2745	126	35	41	36	33	46	42	43	36	40	34	33	36	33	34	34	34
45335	NCA10	RES	127	4 DORAL GR, LUDDENHAM NSW 2745	127	35	38	34	31	46	42	44	36	40	34	33	36	33	34	34	34
45354	NCA10	RES	128	5 DORAL GR, LUDDENHAM NSW 2745	128	35	41	37	34	47	42	44	37	42	35	34	37	34	36	35	35
45365	NCA10	RES	129	6 DORAL GR, LUDDENHAM NSW 2745	129	35	39	35	32	45	40	42	35	40	34	32	35	32	34	33	33
45385	NCA10	RES	131	7 DORAL GR, LUDDENHAM NSW 2745	131	35	39	35	32	44	40	42	35								

45822	NCA10	RES	167	9 FARMINGDALE CT, LUDDENHAM NSW 2745	167	35	32	27	24	36	32	34	27	44	34	32	35	32	34	33
45845	NCA10	RES	169	10 GANTON WAY, LUDDENHAM NSW 2745	169	35	33	29	26	39	34	36	29	43	35	34	37	34	35	35
45880	NCA10	RES	170	12 GANTON WAY, LUDDENHAM NSW 2745	170	35	36	31	28	40	36	38	31	44	36	34	37	34	36	35
45898	NCA10	RES	171	16 GANTON WAY, LUDDENHAM NSW 2745	171	35	35	31	28	40	36	37	30	44	35	34	37	34	36	35
45938	NCA10	RES	172	18 GANTON WAY, LUDDENHAM NSW 2745	172	35	35	31	28	40	36	37	30	44	36	34	37	34	36	35
45970	NCA10	RES	174	2 GANTON WAY, LUDDENHAM NSW 2745	174	35	36	32	29	41	36	38	31	40	32	30	34	31	32	31
45989	NCA10	RES	176	4 GANTON WAY, LUDDENHAM NSW 2745	176	35	36	31	28	40	36	38	31	42	33	32	35	32	34	33
46030	NCA10	RES	178	6 GANTON WAY, LUDDENHAM NSW 2745	178	35	34	29	26	41	37	38	31	41	35	33	37	34	35	34
46039	NCA10	RES	179	8 GANTON WAY, LUDDENHAM NSW 2745	179	35	33	29	26	38	34	36	29	43	35	34	37	34	35	35
46076	NCA10	RES	182	10 HALMSTAD BVD, LUDDENHAM NSW 2745	182	35	36	31	28	41	37	39	32	41	35	33	36	33	35	34
46105	NCA10	RES	185	11 HALMSTAD BVD, LUDDENHAM NSW 2745	185	35	37	32	29	43	39	40	33	43	37	35	38	35	37	36
46111	NCA10	RES	186	12 HALMSTAD BVD, LUDDENHAM NSW 2745	186	35	36	31	28	43	39	40	33	42	35	34	37	34	35	35
46141	NCA10	RES	189	13 HALMSTAD BVD, LUDDENHAM NSW 2745	189	35	39	34	31	44	40	42	35	43	37	36	39	36	37	37
46178	NCA10	RES	191	14 HALMSTAD BVD, LUDDENHAM NSW 2745	191	35	34	29	26	40	36	38	31	43	36	34	37	34	36	35
46204	NCA10	RES	193	15 HALMSTAD BVD, LUDDENHAM NSW 2745	193	35	36	31	28	42	38	39	32	44	37	35	38	35	37	36
46252	NCA10	RES	196	19 HALMSTAD BVD, LUDDENHAM NSW 2745	196	35	35	31	28	41	37	39	32	44	37	35	39	35	37	36
46260	NCA10	RES	198	20 HALMSTAD BVD, LUDDENHAM NSW 2745	198	35	34	30	27	39	35	37	30	42	35	34	37	34	36	35
46296	NCA10	RES	200	22 HALMSTAD BVD, LUDDENHAM NSW 2745	200	35	34	29	26	41	35	37	30	47	36	34	38	35	36	35
46323	NCA10	RES	201	23 HALMSTAD BVD, LUDDENHAM NSW 2745	201	35	37	33	30	43	40	42	35	47	40	38	41	38	40	39
46329	NCA10	RES	203	24 HALMSTAD BVD, LUDDENHAM NSW 2745	203	35	34	29	26	38	34	36	29	43	34	32	36	33	34	33
46355	NCA10	RES	205	25 HALMSTAD BVD, LUDDENHAM NSW 2745	205	35	35	30	27	40	36	38	31	45	37	36	39	36	37	37
46393	NCA10	RES	207	26 HALMSTAD BVD, LUDDENHAM NSW 2745	207	35	34	29	26	38	34	36	29	44	35	33	36	33	35	34
46420	NCA10	RES	209	27 HALMSTAD BVD, LUDDENHAM NSW 2745	209	35	35	30	27	42	38	40	32	46	39	37	40	37	39	38
46447	NCA10	RES	212	28 HALMSTAD BVD, LUDDENHAM NSW 2745	212	35	33	29	26	38	34	36	29	44	33	32	35	32	34	33
46454	NCA10	RES	213	3 HALMSTAD BVD, LUDDENHAM NSW 2745	213	35	40	35	32	46	42	43	36	45	39	37	40	37	39	38
46475	NCA10	RES	214	39 HALMSTAD BVD, LUDDENHAM NSW 2745	214	35	35	31	28	39	35	37	30	47	36	34	38	35	36	35
46521	NCA10	RES	216	4 HALMSTAD BVD, LUDDENHAM NSW 2745	216	35	39	34	31	45	40	42	35	40	34	32	36	33	34	33
46529	NCA10	RES	218	5 HALMSTAD BVD, LUDDENHAM NSW 2745	218	35	37	33	30	45	41	43	36	44	38	36	40	37	38	37
46553	NCA10	RES	219	7 HALMSTAD BVD, LUDDENHAM NSW 2745	219	35	39	35	32	45	41	43	36	43	37	35	38	36	37	36
46586	NCA10	RES	222	8 HALMSTAD BVD, LUDDENHAM NSW 2745	222	35	36	31	28	42	37	39	32	43	37	35	39	36	37	36
46614	NCA10	RES	223	1 HUMEWOOD PL, LUDDENHAM NSW 2745	223	35	37	33	30	42	38	40	32	43	36	34	37	34	36	35
46616	NCA10	RES	224	10 HUMEWOOD PL, LUDDENHAM NSW 2745	224	35	34	29	26	40	36	38	31	42	35	33	37	34	35	34
46666	NCA10	RES	229	11 HUMEWOOD PL, LUDDENHAM NSW 2745	229	35	34	29	26	39	35	36	29	41	34	32	35	32	34	33
46670	NCA10	RES	230	12 HUMEWOOD PL, LUDDENHAM NSW 2745	230	35	37	32	29	42	38	40	33	45	38	36	39	36	38	37
46692	NCA10	RES	231	14 HUMEWOOD PL, LUDDENHAM NSW 2745	231	35	37	33	30	42	38	40	33	45	35	33	37	34	35	34
46716	NCA10	RES	232	15 HUMEWOOD PL, LUDDENHAM NSW 2745	232	35	34	29	26	39	35	37	30	45	37	35	38	35	37	36
46778	NCA10	RES	236	2 HUMEWOOD PL, LUDDENHAM NSW 2745	236	35	32	28	25	39	35	37	30	40	33	32	35	32	33	33
46784	NCA10	RES	237	22 HUMEWOOD PL, LUDDENHAM NSW 2745	237	35	34	29	26	38	34	36	29	45	35	33	36	33	35	34
46832	NCA10	RES	241	24 HUMEWOOD PL, LUDDENHAM NSW 2745	241	35	33	29	26	38	34	35	28	45	34	32	36	33	34	34
46835	NCA10	RES	242	3 HUMEWOOD PL, LUDDENHAM NSW 2745	242	35	34	30	27	39	35	37	30	38	32	30	33	31	32	32
46879	NCA10	RES	244	4 HUMEWOOD PL, LUDDENHAM NSW 2745	244	35	35	31	28	40	36	38	31	43	34	32	36	33	34	33
46883	NCA10	RES	246	5 HUMEWOOD PL, LUDDENHAM NSW 2745	246	35	29	24	21	39	35	37	30	43	36	34	37	34	36	35
46926	NCA10	RES	250	6 HUMEWOOD PL, LUDDENHAM NSW 2745	250	35	38	33	30	43	38	40	33	44	35	33	36	33	35	34
46940	NCA10	RES	252	7 HUMEWOOD PL, LUDDENHAM NSW 2745	252	35	34	30	27	39	35	37	30	41	34	32	35	32	34	33
46986	NCA10	RES	256	9 HUMEWOOD PL, LUDDENHAM NSW 2745	256	35	36	32	29	42	38	39	32	42	34	32	36	32	34	33
46994	NCA10	RES	258	336-348 LUDDENHAM RD, LUDDENHAM NSW 2745	258	35	41	37	34	41	36	38	31	42	34	33	36	33	34	34
47000	NCA10	RES	265	339-363 LUDDENHAM RD, LUDDENHAM NSW 2745	265	35	43	38	35	42	37	39	32	43	36	34	38	35	36	35
47005	NCA10	RES	275	405-423 LUDDENHAM RD, LUDDENHAM NSW 2745	275	35	48	44	41	47	42	44	37	48	42	40	43	40	42	41
47015	NCA10	RES	279	425-441 LUDDENHAM RD, LUDDENHAM NSW 2745	279	35	45	41	38	52	46	48	41	47	39	37	41	38	40	39
47023	NCA10	RES	288	425A LUDDENHAM RD, LUDDENHAM NSW 2745	288	35	49	44	41	56	50	52	45	48	42	40	43	41	42	41
47046	NCA10	RES	292	443-457 LUDDENHAM RD, LUDDENHAM NSW 2745	292	35	54	49	46	58	53	55	48	53	47	45	48	45	47	46
47067	NCA10	RES	302	611-639 LUDDENHAM RD, LUDDENHAM NSW 2745	302	35	40	35	32	44	40	42	35	55	49	48	51	48	49	49
47073	NCA10	RES	304	611A LUDDENHAM RD, LUDDENHAM NSW 2745	304	35	39	34	31	43	39	41	34	53	46	45	48	45	46	46
47077	NCA10	RES	308	641-675 LUDDENHAM RD, LUDDENHAM NSW 2745	308	35	36	31	28	38	34	36	29	45	39	37	40	37	39	38
47101	NCA10	RES	311	644-652 LUDDENHAM RD, LUDDENHAM NSW 2745	311	35	38	33	30	43	39	41	34	57	51	50	53	50	52	51
47107	NCA10	RES	314	654-658 LUDDENHAM RD, LUDDENHAM NSW 2745	314	35	37	33	30	42	38	40	33	55	49	47	50	48	49	48
47112	NCA10	RES	319	660-670 LUDDENHAM RD, LUDDENHAM NSW 2745	319	35	36	31	28	40	36	38	31	49	43	41	45	42	43	42
47118	NCA10	RES	321	672-686 LUDDENHAM RD, LUDDENHAM NSW 2745	321	35	35	30	27	39	35	36	29	48	42	40	43	40	42	41
47167	NCA10	RES	329	677-691 LUDDENHAM RD, LUDDENHAM NSW 2745	329	35	35	31	28	38	34	36	29	48	42	41	44	41	42	42
47196	NCA10	RES	335	688-708 LUDDENHAM RD, LUDDENHAM NSW 2745	335	35	34	29	26	37	33	35	28	45	39	37	40	37	39	38
47243	NCA10	RES	345	693-711 LUDDENHAM RD, LUDDENHAM NSW 2745	345	35	26	22	19	36	32	34	27	42	36	34	37	34	36	35
47276	NCA10	RES	350	2179A ELIZABETH DR, LUDDENHAM NSW 2745	5866	35	26	22	19	26	22	24	17	30	24	22	25	22	24	23
47286	NCA10	RES	351	710-732 LUDDENHAM RD, LUDDENHAM NSW 2745	351	35	32	28	25	35	31	33	25	42	35	34	37	34	35	35
47299	NCA10	RES	352	713-733 LUDDENHAM RD, LUDDENHAM NSW 2745	352	35	36	30	27	37	33	35	28	45	37	35	38	35	37	36
47307	NCA10	RES	354	2207-2223 ELIZABETH DR, LUDDENHAM NSW 2745	5870	35	27	18	15	23	19	21	14	28	22	20	23	20	22	21
47315	NCA10	RES	355	734 LUDDENHAM RD, LUDDENHAM NSW 2745	355	35	23	19	16	24	20	22	15	29	22	21	24	21	23	22
47350	NCA10	RES	358	2207-2223 ELIZABETH DR, LUDDENHAM NSW 2745	5874	35	23	18	15	24	20	22	15	29	22	21	24	21	22	22
47356	NCA10	RES	359	734-750 LUDDENHAM RD, LUDDENHAM NSW 2745	359	35	34	29	26	36	32	34	27	41	35	33	36	33	35	34
47371	NCA10	RES	361	2225-2239 ELIZABETH DR, LUDDENHAM NSW 2745	5877	35	25	20	17	26	22	24	17	30	24	22	26	23	24	23
47400	NCA10	RES	367	KARINGAL 752-810 LUDDENHAM RD, LUDDENHAM NSW 2745	367	35	29	25	22	33	29	31	24	40	33	32	35	32	33	33
47413	NCA10	RES	379	OROOLONG PARK 2510-2550 ELIZABETH DR, LUDD																

47797	NCA10	RES	448	15	MEDINAH AV, LUDDENHAM NSW 2745	448	35	36	31	28	38	34	36	28	34	28	26	30	27	29	28
47814	NCA10	RES	450	16	MEDINAH AV, LUDDENHAM NSW 2745	450	35	38	34	31	27	23	25	18	38	31	30	33	30	31	31
47815	NCA10	RES	450	16	MEDINAH AV, LUDDENHAM NSW 2745	450	35	26	21	18	41	37	39	32	33	26	25	28	25	27	26
47842	NCA10	RES	451	17	MEDINAH AV, LUDDENHAM NSW 2745	451	35	32	27	24	38	34	35	28	34	27	26	29	26	27	27
47878	NCA10	RES	453	19	MEDINAH AV, LUDDENHAM NSW 2745	453	35	38	33	30	41	36	38	31	37	31	29	32	29	31	30
47895	NCA10	RES	454	1A	MEDINAH AV, LUDDENHAM NSW 2745	454	35	40	36	33	43	39	40	33	40	33	32	35	32	33	33
47923	NCA10	RES	455	2	MEDINAH AV, LUDDENHAM NSW 2745	455	35	40	36	33	41	36	38	31	39	33	31	35	32	33	33
47946	NCA10	RES	456	21	MEDINAH AV, LUDDENHAM NSW 2745	456	35	35	30	27	38	34	36	28	34	28	26	29	26	28	27
47960	NCA10	RES	457	23	MEDINAH AV, LUDDENHAM NSW 2745	457	35	35	30	27	38	34	36	28	34	28	26	29	26	28	27
47978	NCA10	RES	458	24	MEDINAH AV, LUDDENHAM NSW 2745	458	35	36	31	28	42	37	39	32	37	31	29	33	30	31	30
48020	NCA10	RES	460	25	MEDINAH AV, LUDDENHAM NSW 2745	460	35	35	30	27	38	33	35	28	34	27	26	29	26	28	27
48058	NCA10	RES	462	26	MEDINAH AV, LUDDENHAM NSW 2745	462	35	35	31	28	39	35	36	29	37	28	27	30	27	28	28
48060	NCA10	RES	463	27	MEDINAH AV, LUDDENHAM NSW 2745	463	35	35	30	27	38	34	36	29	34	28	26	29	26	28	27
48098	NCA10	RES	464	29	MEDINAH AV, LUDDENHAM NSW 2745	464	35	37	33	30	41	36	38	31	36	30	28	32	29	30	29
48125	NCA10	RES	466	3	MEDINAH AV, LUDDENHAM NSW 2745	466	35	37	33	30	40	35	37	30	36	30	28	32	29	30	29
48135	NCA10	RES	467	31	MEDINAH AV, LUDDENHAM NSW 2745	467	35	34	30	27	38	34	36	28	34	28	26	29	26	28	27
48155	NCA10	RES	468	4	MEDINAH AV, LUDDENHAM NSW 2745	468	35	37	32	29	41	36	38	31	36	30	28	32	29	30	29
48173	NCA10	RES	470	5	MEDINAH AV, LUDDENHAM NSW 2745	470	35	37	32	29	40	35	37	30	36	30	28	32	29	30	29
48197	NCA10	RES	471	6	MEDINAH AV, LUDDENHAM NSW 2745	471	35	40	35	32	43	38	40	33	39	33	31	34	31	33	32
48209	NCA10	RES	473	7	MEDINAH AV, LUDDENHAM NSW 2745	473	35	39	35	32	42	37	39	32	38	32	30	34	31	32	31
48248	NCA10	RES	474	8	MEDINAH AV, LUDDENHAM NSW 2745	474	35	40	35	32	43	39	41	34	39	33	31	34	32	33	32
48254	NCA10	RES	475	9	MEDINAH AV, LUDDENHAM NSW 2745	475	35	36	31	28	39	34	36	29	35	29	27	31	28	29	28
48282	NCA10	RES	477	10	PENNARD CR, LUDDENHAM NSW 2745	477	35	37	32	29	43	39	40	33	39	33	31	34	31	33	32
48306	NCA10	RES	480	11	PENNARD CR, LUDDENHAM NSW 2745	480	35	36	32	29	43	38	40	33	38	32	30	33	30	32	31
48361	NCA10	RES	482	12	PENNARD CR, LUDDENHAM NSW 2745	482	35	37	32	29	42	37	39	32	37	30	29	32	29	31	30
48372	NCA10	RES	483	14	PENNARD CR, LUDDENHAM NSW 2745	483	35	39	34	31	44	39	41	34	39	33	31	34	31	33	32
48393	NCA10	RES	486	15	PENNARD CR, LUDDENHAM NSW 2745	486	35	36	32	29	40	35	37	30	35	29	27	31	28	29	28
48426	NCA10	RES	488	16	PENNARD CR, LUDDENHAM NSW 2745	488	35	39	34	31	44	39	41	34	40	33	31	35	32	33	32
48460	NCA10	RES	490	2	PENNARD CR, LUDDENHAM NSW 2745	490	35	37	33	30	42	37	39	32	38	31	30	33	30	32	31
48482	NCA10	RES	492	3	PENNARD CR, LUDDENHAM NSW 2745	492	35	37	33	30	41	36	38	31	36	30	28	32	29	30	29
48548	NCA10	RES	497	4	PENNARD CR, LUDDENHAM NSW 2745	497	35	37	32	29	40	35	37	30	37	31	29	33	30	31	30
48563	NCA10	RES	498	5	PENNARD CR, LUDDENHAM NSW 2745	498	35	37	32	29	41	36	38	31	36	30	28	31	28	30	29
48581	NCA10	RES	500	6	PENNARD CR, LUDDENHAM NSW 2745	500	35	37	33	30	42	37	39	32	36	30	28	32	29	30	29
48608	NCA10	RES	503	7	PENNARD CR, LUDDENHAM NSW 2745	503	35	37	32	29	41	36	38	31	36	30	28	31	28	30	29
48623	NCA10	RES	504	8	PENNARD CR, LUDDENHAM NSW 2745	504	35	39	35	32	44	39	41	34	39	33	31	34	31	33	32
48651	NCA10	RES	505	9	PENNARD CR, LUDDENHAM NSW 2745	505	35	36	32	29	40	36	38	30	36	29	28	31	28	30	29
48667	NCA10	RES	507	10	PINE VALLEY CR, LUDDENHAM NSW 2745	507	35	36	32	29	40	35	37	30	37	31	29	32	29	31	30
48708	NCA10	RES	510	11	PINE VALLEY CR, LUDDENHAM NSW 2745	510	35	37	32	29	42	37	39	32	38	31	30	33	30	31	31
48716	NCA10	RES	511	12	PINE VALLEY CR, LUDDENHAM NSW 2745	511	35	38	34	31	42	37	39	32	37	31	29	33	30	31	30
48738	NCA10	RES	512	13	PINE VALLEY CR, LUDDENHAM NSW 2745	512	35	38	34	31	43	38	40	33	38	32	30	33	30	32	31
48756	NCA10	RES	513	15	PINE VALLEY CR, LUDDENHAM NSW 2745	513	35	35	31	28	40	35	37	30	37	31	29	33	30	31	30
48770	NCA10	RES	514	17	PINE VALLEY CR, LUDDENHAM NSW 2745	514	35	36	31	28	42	37	39	32	37	31	29	33	30	31	30
48809	NCA10	RES	516	2	PINE VALLEY CR, LUDDENHAM NSW 2745	516	35	39	35	32	42	38	39	32	38	32	30	34	31	32	32
48821	NCA10	RES	517	3	PINE VALLEY CR, LUDDENHAM NSW 2745	517	35	37	33	30	43	38	40	33	38	32	30	33	30	32	31
48855	NCA10	RES	519	4	PINE VALLEY CR, LUDDENHAM NSW 2745	519	35	39	35	32	40	35	37	30	38	32	30	34	31	32	32
48871	NCA10	RES	520	5	PINE VALLEY CR, LUDDENHAM NSW 2745	520	35	40	35	32	43	38	39	32	39	33	31	34	31	33	32
48894	NCA10	RES	522	6	PINE VALLEY CR, LUDDENHAM NSW 2745	522	35	37	32	29	40	35	37	30	37	29	28	31	28	30	29
48907	NCA10	RES	524	7	PINE VALLEY CR, LUDDENHAM NSW 2745	524	35	39	35	32	43	38	40	33	39	32	31	34	31	33	32
48921	NCA10	RES	525	8	PINE VALLEY CR, LUDDENHAM NSW 2745	525	35	36	32	29	40	35	37	30	35	29	28	31	28	29	29
48943	NCA10	RES	527	9	PINE VALLEY CR, LUDDENHAM NSW 2745	527	35	39	35	32	41	36	38	31	38	32	31	34	31	32	32
48950	NCA10	RES	528	1	PORTRUSH CR, LUDDENHAM NSW 2745	528	35	43	38	35	50	45	46	39	43	37	35	39	36	37	36
48993	NCA10	RES	532	10	PORTRUSH CR, LUDDENHAM NSW 2745	532	35	42	37	34	46	41	43	36	41	35	33	36	33	35	34
49002	NCA10	RES	533	11	PORTRUSH CR, LUDDENHAM NSW 2745	533	35	42	37	34	54	48	50	43	45	38	37	40	37	38	38
49036	NCA10	RES	537	12	PORTRUSH CR, LUDDENHAM NSW 2745	537	35	32	27	24	41	37	38	31	41	34	33	36	33	35	34
49088	NCA10	RES	539	13	PORTRUSH CR, LUDDENHAM NSW 2745	539	35	45	41	38	53	47	49	42	45	39	37	40	37	39	38
49106	NCA10	RES	540	14	PORTRUSH CR, LUDDENHAM NSW 2745	540	35	41	37	34	47	42	44	37	40	34	33	36	33	34	34
49154	NCA10	RES	545	15	PORTRUSH CR, LUDDENHAM NSW 2745	545	35	43	39	36	53	48	49	42	44	37	35	39	36	38	37
49169	NCA10	RES	546	16	PORTRUSH CR, LUDDENHAM NSW 2745	546	35	34	29	26	48	43	45	38	41	35	33	37	34	36	35
49243	NCA10	RES	552	17	PORTRUSH CR, LUDDENHAM NSW 2745	552	35	43	39	36	55	50	52	45	44	37	35	39	38	39	38
49271	NCA10	RES	555	18	PORTRUSH CR, LUDDENHAM NSW 2745	555	35	44	40	37	49	44	46	38	43	37	35	39	36	37	36
49277	NCA10	RES	557	19	PORTRUSH CR, LUDDENHAM NSW 2745	557	35	47	42	39	57	51	53	46	46	40	38	42	39	40	39
49304	NCA10	RES	559	2	PORTRUSH CR, LUDDENHAM NSW 2745	559	35	45	40	37	48	43	45	38	44	38	36	39	36	38	37
49338	NCA10	RES	561	21	PORTRUSH CR, LUDDENHAM NSW 2745	561	35	44	39	36	56	50	52	44	45	39	38	41	38	39	39
49376	NCA10	RES	562	22	PORTRUSH CR, LUDDENHAM NSW 2745	562	35	44	40	37	50	45	47	39	43	37	36	39	36	37	37
49401	NCA10	RES	565	23	PORTRUSH CR, LUDDENHAM NSW 2745	565	35	43	39	36	54	48	50	43	45	39	37	40	37	39	38
49440	NCA10	RES	569	24	PORTRUSH CR, LUDDENHAM NSW 2745	569	35	40	35	32	49	42	44	37	41	35	33	36	34	35	34
49451	NCA10	RES	570	26	PORTRUSH CR, LUDDENHAM NSW 2745	570	35	44	39	36	53	48	50	43	44	38	36	40	37	38	38
49497	NCA10	RES	573	28	PORTRUSH CR, LUDDENHAM NSW 2745	573	35	40	36	33	49	45	46	39	42	36	34	38	34	36	35
49502	NCA10	RES	574	30	PORTRUSH CR, LUDDENHAM NSW 2745	574	35	34	29	26	46	43	44	37	42	36	34	38	35	36	35
49566	NCA10	RES	578	34	PORTRUSH CR, LUDDENHAM NSW 2745	578	35	39	34	31	47										

50050	NCA10	RES	617	66	PORTRUSH CR, LUDDENHAM NSW 2745	617	35	46	41	38	50	44	46	39	45	39	37	40	37	39	38
50071	NCA10	RES	618	68	PORTRUSH CR, LUDDENHAM NSW 2745	618	35	43	39	36	50	44	46	39	43	37	35	39	36	37	36
50108	NCA10	RES	620	8	PORTRUSH CR, LUDDENHAM NSW 2745	620	35	42	37	34	47	42	43	36	41	35	33	36	33	35	34
50134	NCA10	RES	622	11	TWIN CREEKS DR, LUDDENHAM NSW 2745	622	35	37	33	30	41	37	38	31	39	33	31	34	31	33	32
50185	NCA10	RES	626	13	TWIN CREEKS DR, LUDDENHAM NSW 2745	626	35	37	33	30	42	37	39	32	38	31	30	33	30	31	31
50196	NCA10	RES	627	14	TWIN CREEKS DR, LUDDENHAM NSW 2745	627	35	40	36	33	44	40	41	34	40	33	32	35	32	34	33
50249	NCA10	RES	632	15	TWIN CREEKS DR, LUDDENHAM NSW 2745	632	35	37	33	30	44	40	41	34	39	33	31	34	31	33	32
50271	NCA10	RES	635	17	TWIN CREEKS DR, LUDDENHAM NSW 2745	635	35	38	33	30	44	40	42	35	39	33	32	35	32	33	33
50317	NCA10	RES	636	18	TWIN CREEKS DR, LUDDENHAM NSW 2745	636	35	40	36	33	46	40	42	35	40	34	33	36	33	34	34
50325	NCA10	RES	643	20	TWIN CREEKS DR, LUDDENHAM NSW 2745	643	35	38	33	30	42	37	39	32	37	31	29	32	29	31	30
50341	NCA10	RES	644	21	TWIN CREEKS DR, LUDDENHAM NSW 2745	644	35	37	33	30	43	38	40	33	37	31	29	33	30	31	30
50383	NCA10	RES	648	22	TWIN CREEKS DR, LUDDENHAM NSW 2745	648	35	40	36	33	45	40	42	35	39	33	32	35	32	33	33
50403	NCA10	RES	652	24	TWIN CREEKS DR, LUDDENHAM NSW 2745	652	35	41	36	33	43	39	40	33	40	33	32	35	32	34	33
50438	NCA10	RES	653	26	TWIN CREEKS DR, LUDDENHAM NSW 2745	653	35	40	35	32	46	41	43	36	40	34	32	35	32	34	33
50480	NCA10	RES	655	27	TWIN CREEKS DR, LUDDENHAM NSW 2745	655	35	33	28	25	43	39	41	33	41	33	31	35	32	33	32
50506	NCA10	RES	657	28	TWIN CREEKS DR, LUDDENHAM NSW 2745	657	35	38	34	31	46	42	44	37	41	35	33	36	33	35	34
50521	NCA10	RES	658	29	TWIN CREEKS DR, LUDDENHAM NSW 2745	658	35	38	33	30	44	40	41	34	42	35	34	37	34	36	35
50546	NCA10	RES	661	30	TWIN CREEKS DR, LUDDENHAM NSW 2745	661	35	38	33	30	43	39	41	33	39	32	30	34	31	32	32
50575	NCA10	RES	663	31	TWIN CREEKS DR, LUDDENHAM NSW 2745	663	35	38	33	30	44	39	41	34	40	34	32	35	32	34	33
50595	NCA10	RES	666	32	TWIN CREEKS DR, LUDDENHAM NSW 2745	666	35	41	36	33	46	42	43	36	40	34	33	36	33	34	34
50638	NCA10	RES	669	33	TWIN CREEKS DR, LUDDENHAM NSW 2745	669	35	37	32	29	43	39	40	33	40	33	32	35	32	33	33
50668	NCA10	RES	672	34	TWIN CREEKS DR, LUDDENHAM NSW 2745	672	35	40	35	32	45	41	43	36	42	35	34	37	34	36	35
50692	NCA10	RES	673	35	TWIN CREEKS DR, LUDDENHAM NSW 2745	673	35	39	35	32	45	41	43	36	42	36	34	38	35	36	35
50741	NCA10	RES	676	36	TWIN CREEKS DR, LUDDENHAM NSW 2745	676	35	38	33	30	44	39	41	34	38	32	30	34	31	32	31
50746	NCA10	RES	677	37	TWIN CREEKS DR, LUDDENHAM NSW 2745	677	35	36	31	28	42	38	40	32	40	33	31	35	32	33	32
50778	NCA10	RES	682	38	TWIN CREEKS DR, LUDDENHAM NSW 2745	682	35	41	36	33	45	40	42	35	41	34	32	36	33	34	33
50806	NCA10	RES	683	39	TWIN CREEKS DR, LUDDENHAM NSW 2745	683	35	36	32	29	42	38	39	32	40	34	32	35	32	34	33
50827	NCA10	RES	684	40	TWIN CREEKS DR, LUDDENHAM NSW 2745	684	35	39	34	31	47	43	45	38	43	37	35	39	36	37	36
50864	NCA10	RES	688	42	TWIN CREEKS DR, LUDDENHAM NSW 2745	688	35	39	34	31	47	43	45	38	43	37	35	38	35	37	36
50903	NCA10	RES	692	43	TWIN CREEKS DR, LUDDENHAM NSW 2745	692	35	37	33	30	44	40	42	35	42	34	33	36	33	34	34
50921	NCA10	RES	694	44	TWIN CREEKS DR, LUDDENHAM NSW 2745	694	35	39	35	32	47	43	45	38	43	37	35	39	36	37	36
50955	NCA10	RES	696	45	TWIN CREEKS DR, LUDDENHAM NSW 2745	696	35	36	31	28	43	38	40	32	44	34	32	36	33	34	33
51001	NCA10	RES	699	47	TWIN CREEKS DR, LUDDENHAM NSW 2745	699	35	35	31	28	40	36	38	31	39	33	31	34	31	33	32
51019	NCA10	RES	700	48	TWIN CREEKS DR, LUDDENHAM NSW 2745	700	35	40	36	33	47	43	45	38	44	38	36	39	36	37	36
51029	NCA10	RES	702	49	TWIN CREEKS DR, LUDDENHAM NSW 2745	702	35	32	27	24	40	36	37	30	39	31	29	32	29	31	30
51054	NCA10	RES	704	5	TWIN CREEKS DR, LUDDENHAM NSW 2745	704	35	38	33	30	41	36	38	31	37	31	29	32	29	31	30
51076	NCA10	RES	705	50	TWIN CREEKS DR, LUDDENHAM NSW 2745	705	35	39	35	32	48	43	45	38	44	38	36	40	37	38	37
51099	NCA10	RES	708	51	TWIN CREEKS DR, LUDDENHAM NSW 2745	708	35	33	28	25	41	37	39	32	42	35	33	37	34	35	34
51160	NCA10	RES	710	52	TWIN CREEKS DR, LUDDENHAM NSW 2745	710	35	40	35	32	45	41	43	36	45	43	37	38	35	37	36
51171	NCA10	RES	712	53	TWIN CREEKS DR, LUDDENHAM NSW 2745	712	35	34	29	26	39	35	37	30	41	35	33	36	33	35	34
51216	NCA10	RES	716	54	TWIN CREEKS DR, LUDDENHAM NSW 2745	716	35	33	28	25	43	38	40	33	41	34	32	36	33	34	33
51244	NCA10	RES	719	55	TWIN CREEKS DR, LUDDENHAM NSW 2745	719	35	34	30	27	39	35	37	30	39	32	30	34	31	32	31
51271	NCA10	RES	721	58	TWIN CREEKS DR, LUDDENHAM NSW 2745	721	35	38	34	31	44	40	42	35	43	37	35	38	35	37	36
51286	NCA10	RES	722	62	TWIN CREEKS DR, LUDDENHAM NSW 2745	722	35	36	31	28	41	37	39	32	43	36	35	38	35	37	36
51343	NCA10	RES	728	64	TWIN CREEKS DR, LUDDENHAM NSW 2745	728	35	37	33	30	43	39	41	34	41	35	33	37	34	35	34
51378	NCA10	RES	731	7	TWIN CREEKS DR, LUDDENHAM NSW 2745	731	35	37	33	30	41	37	38	31	37	30	29	32	29	31	30
51391	NCA10	RES	732	9	TWIN CREEKS DR, LUDDENHAM NSW 2745	732	35	39	35	32	44	39	41	34	39	33	31	34	31	33	32
51422	NCA10	RES	736	1	VENTANA CT, LUDDENHAM NSW 2745	736	35	38	34	31	45	40	42	35	43	37	35	38	35	37	36
51444	NCA10	RES	737	2	VENTANA CT, LUDDENHAM NSW 2745	737	35	38	34	31	45	41	42	35	43	37	35	38	36	37	36
51458	NCA10	RES	738	2	VENTANA CT, LUDDENHAM NSW 2745	738	35	41	36	33	47	40	42	35	43	37	35	39	36	37	36
51477	NCA10	RES	740	3	VENTANA CT, LUDDENHAM NSW 2745	740	35	38	33	30	44	40	42	35	45	38	36	39	36	38	37
51487	NCA10	RES	741	4	VENTANA CT, LUDDENHAM NSW 2745	741	35	42	37	34	49	44	46	39	42	36	34	37	34	36	35
51518	NCA10	RES	743	5	VENTANA CT, LUDDENHAM NSW 2745	743	35	39	34	31	46	41	43	36	45	38	37	40	37	38	38
51534	NCA10	RES	744	6	VENTANA CT, LUDDENHAM NSW 2745	744	35	40	35	32	48	43	45	38	44	37	35	38	35	37	36
51589	NCA10	RES	748	7	VENTANA CT, LUDDENHAM NSW 2745	748	35	39	34	31	45	41	43	36	42	36	34	38	35	36	35
51598	NCA10	RES	749	1	WOODHALL PL, LUDDENHAM NSW 2745	749	35	37	33	30	43	38	40	33	40	34	32	36	33	34	33
51622	NCA10	RES	752	11	WOODHALL PL, LUDDENHAM NSW 2745	752	35	36	31	28	43	39	41	34	39	33	31	35	32	33	32
51649	NCA10	RES	753	13	WOODHALL PL, LUDDENHAM NSW 2745	753	35	37	32	29	43	39	40	33	40	34	32	35	32	34	33
51671	NCA10	RES	754	15	WOODHALL PL, LUDDENHAM NSW 2745	754	35	35	31	28	41	36	38	31	38	31	29	33	30	31	31
51736	NCA10	RES	756	17	WOODHALL PL, LUDDENHAM NSW 2745	756	35	35	31	28	42	38	40	33	40	34	32	35	32	34	33
51766	NCA10	RES	757	19	WOODHALL PL, LUDDENHAM NSW 2745	757	35	37	33	30	42	38	40	33	41	34	32	35	32	34	33
51782	NCA10	RES	760	2	WOODHALL PL, LUDDENHAM NSW 2745	760	35	37	32	29	43	39	41	34	40	34	32	35	32	34	33
51797	NCA10	RES	761	3	WOODHALL PL, LUDDENHAM NSW 2745	761	35	37	33	30	42	38	40	33	40	34	32	36	33	34	33
51820	NCA10	RES	763	4	WOODHALL PL, LUDDENHAM NSW 2745	763	35	37	32	29	42	37	39	32	40	31	29	32	30	31	30
51855	NCA10	RES	765	5	WOODHALL PL, LUDDENHAM NSW 2745	765	35	39	35	32	45	40	42	35	40	34	32	36	33	34	33
51875	NCA10	RES	767	6	WOODHALL PL, LUDDENHAM NSW 2745	767	35	36	32	29	41	37	39	32	37	31	29	32	30	31	30
51912	NCA10	RES	769	7	WOODHALL PL, LUDDENHAM NSW 2745	769	35	36	32	29	44	40	42	35	40	34	32	35	32	34	33
51917	NCA10	RES	770	9	WOODHALL PL, LUDDENHAM NSW 2745	770	35	33	29	26	42	37	39	32	40	34	32	35	32	34	33

Predicted OOHW Night time construction noise levels				Residential colour code additional mitigation measures: Bold = Highly noise affected																
No.	NCA	Usage	Rec	Address	Unique ID	NML	Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16	
41259	NCA9	RES	105	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5210	39	33	29	26	28	18	24	26	19	43	35	35	36	36	
41326	NCA9	RES	128	182-200 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5233	39	36	31	28	31	21	27	28	21	43	35	35	37	36	
41351	NCA9	RES	134	202-210 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5239	39	39	34	31	33	23	29	31	24	42	34	35	36	35	
41364	NCA9	RES	135	212-214 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5240	39	35	31	28	32	22	28	29	22	42	34	35	36	36	
41417	NCA9	RES	142	216 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5247	39	36	32	29	32	22	28	30	22	42	34	34	36	35	
41445	NCA9	RES	174	COOLAMON 221-227 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5279	39	38	33	30	36	25	31	33	26	43	35	35	37	36	
41466	NCA9	RES	224	222-224 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5329	39	37	32	29	33	22	28	30	23	42	34	34	36	35	
41478	NCA9	RES	228	222 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5333	39	37	32	29	34	24	30	32	25	45	37	37	39	38	
41486	NCA9	RES	229	226-228 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5334	39	36	32	29	27	22	28	29	22	41	33	33	35	34	
41506	NCA9	RES	234	229-231 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5339	39	41	37	34	37	26	32	34	27	46	38	39	40	39	
41529	NCA9	RES	244	230-234 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5349	39	37	32	29	33	22	28	30	23	41	33	33	35	34	
41536	NCA9	RES	246	233-249 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5351	39	38	34	31	35	24	30	32	25	45	37	38	39	38	
41559	NCA9	RES	255	236-238 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5360	39	37	33	30	33	22	28	30	23	41	33	34	35	34	
41564	NCA9	RES	256	240-244 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5361	39	23	19	16	23	13	19	21	14	41	33	33	35	34	
41615	NCA9	RES	267	246-248 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5372	39	31	27	24	29	19	25	27	20	41	33	34	35	35	
41621	NCA9	RES	268	250-254 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5373	39	36	32	29	34	23	29	31	24	40	32	32	34	33	
41667	NCA9	RES	280	251-261 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5385	39	39	35	32	35	25	31	32	25	43	35	35	37	36	
41695	NCA9	RES	282	256 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5387	39	37	33	30	34	23	29	31	24	43	35	35	36	36	
41702	NCA9	RES	283	262-266 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5388	39	38	33	30	35	24	30	32	25	40	32	33	34	33	
41727	NCA9	RES	290	263-273 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5395	39	39	34	31	36	25	31	33	26	44	37	37	38	38	
41730	NCA9	RES	292	268-288 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5397	39	39	34	31	36	25	31	33	26	41	33	33	35	34	
41740	NCA9	RES	297	275-285 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5402	39	38	34	31	35	25	31	33	26	43	35	36	37	36	
41761	NCA9	RES	299	275A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5404	39	40	36	33	37	26	32	34	27	43	35	36	37	36	
41798	NCA9	RES	305	287 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5410	39	40	36	33	39	29	35	37	29	43	35	35	36	36	
41818	NCA9	RES	307	289-317 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5412	39	42	37	34	38	27	33	35	28	45	36	37	38	37	
41841	NCA9	RES	309	31-39 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5414	39	27	23	20	23	13	19	20	13	35	27	27	29	28	
41851	NCA9	RES	313	319-325 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5418	39	42	38	35	40	29	35	37	30	46	36	37	38	37	
41887	NCA9	RES	319	320-326 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5424	39	41	36	33	39	28	34	36	29	42	33	33	35	34	
41903	NCA9	RES	322	43A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5427	39	31	26	23	27	17	23	25	18	40	32	32	34	33	
41951	NCA9	RES	344	573-577 MAMRE RD, ORCHARD HILLS NSW 2748	5449	39	30	26	23	28	18	24	25	18	33	25	25	26	26	
41960	NCA9	RES	346	1-19 MANDALONG CL, ORCHARD HILLS NSW 2748	5451	39	30	25	22	27	16	22	24	17	35	27	28	29	28	
41980	NCA9	RES	348	21A MANDALONG CL, ORCHARD HILLS NSW 2748	5453	39	32	28	25	30	19	25	27	20	35	27	27	29	28	
42005	NCA9	RES	351	25-31 MANDALONG CL, ORCHARD HILLS NSW 2748	5456	39	30	25	22	27	17	23	25	18	34	26	26	28	27	
42047	NCA9	RES	355	33-41 MANDALONG CL, ORCHARD HILLS NSW 2748	5460	39	30	26	23	28	17	23	25	18	34	26	26	28	27	
42089	NCA9	RES	360	43-51 MANDALONG CL, ORCHARD HILLS NSW 2748	5465	39	31	26	23	28	18	24	26	18	35	27	27	29	28	
42137	NCA9	RES	364	53-63 MANDALONG CL, ORCHARD HILLS NSW 2748	5469	39	31	27	24	29	18	24	26	19	35	28	28	29	29	
42193	NCA9	RES	370	65-73 MANDALONG CL, ORCHARD HILLS NSW 2748	5475	39	32	27	24	29	19	25	27	19	36	28	28	30	29	
42250	NCA9	RES	376	75-77 MANDALONG CL, ORCHARD HILLS NSW 2748	5481	39	35	30	27	32	22	28	30	22	39	31	32	33	32	
42265	NCA9	RES	377	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5482	39	33	28	25	29	19	25	27	19	38	30	31	32	31	
42347	NCA9	RES	392	83-91 MANDALONG CL, ORCHARD HILLS NSW 2748	5497	39	32	27	24	29	18	24	26	19	38	30	30	32	31	
42396	NCA9	RES	755	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6271	39	33	29	26	27	18	24	26	19	33	25	26	27	26	
44920	NCA10	RES	16	1669A ELIZABETH DR, BADGERYS CREEK NSW 2555	16	35	24	20	17	27	17	23	25	18	37	24	23	25	25	
44940	NCA10	RES	52	1783-1789 ELIZABETH DR, BADGERYS CREEK NSW 2555	52	35	21	17	14	24	15	21	22	15	36	22	22	24	23	
44958	NCA10	RES	82	1953-2109 ELIZABETH DR, BADGERYS CREEK NSW 2555	82	35	24	20	17	28	18	24	26	18	34	26	26	28	27	
44980	NCA10	RES	97	707A MAMRE RD, KEMPS CREEK NSW 2178	97	35	35	31	28	36	25	31	33	26	35	27	28	29	28	
45026	NCA10	RES	104	3 BRIDPORT PL, LUDDENHAM NSW 2745	104	35	33	28	25	38	28	34	36	29	48	37	37	39	38	
45035	NCA10	RES	106	4 BRIDPORT PL, LUDDENHAM NSW 2745	106	35	34	30	27	42	32	38	39	32	47	38	38	40	39	
45070	NCA10	RES	107	10 COMARGO LANE, LUDDENHAM NSW 2745	107	35	44	40	37	43	32	38	40	33	44	36	36	38	37	
45085	NCA10	RES	108	2 COMARGO LANE, LUDDENHAM NSW 2745	108	35	41	36	33	42	31	37	39	31	40	32	32	34	33	
45125	NCA10	RES	111	4 COMARGO LANE, LUDDENHAM NSW 2745	111	35	44	39	36	43	32	38	39	32	43	35	36	37	36	
45138	NCA10	RES	112	6 COMARGO LANE, LUDDENHAM NSW 2745	112	35	42	37	34	45	34	40	42	35	42	33	34	35	34	
45151	NCA10	RES	113	8 COMARGO LANE, LUDDENHAM NSW 2745	113	35	42	37	34	42	31	37	39	32	42	33	34	35	34	
45165	NCA10	RES	114	2 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	114	35	38	34	31	43	32	38	40	33	38	30	30	31	31	
45179	NCA10	RES	115	3 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	115	35	38	34	31	43	32	38	40	33	40	32	32	34	33	
45206	NCA10	RES	116	4 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	116	35	38	34	31	45	32	38	40	33	41	33	34	35	34	
45215	NCA10	RES	118	5 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	118	35	38	34	31	45	34	40	42	35	39	31	32	33	32	
45238	NCA10	RES	119	6 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	119	35	41	36	33	45	34	40	42	35	40	32	32	34	33	
45264	NCA10	RES	120	7 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	120	35	41	36	33	45	34	40	42	35	40	32	32	34	33	
45275	NCA10	RES	121	8 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	121	35	38	34	31	45	34	40	42	34	39	31	31	33	32	
45288	NCA10	RES	122	10 DORAL GR, LUDDENHAM NSW 2745	122	35	41	36	33	46	35	41	43	36	41	33	33	35	34	
45306	NCA10	RES	125	11 DORAL GR, LUDDENHAM NSW 2745	125	35	40	35	32	44	33	39	41	33	39	31	31	33	32	
45312	NCA10	RES	126	3 DORAL GR, LUDDENHAM NSW 2745	126	35	41	36	33	46	36	42	43	36	40	33	33	34	34	
45335	NCA10	RES	127	4 DORAL GR, LUDDENHAM NSW 2745	127	35	38	34	31	46	36	42	44	36	40	33	33	34	34	
45354	NCA10	RES	128	5 DORAL GR, LUDDENHAM NSW 2745	128	35	41	37	34	47	36	42	44	37	42	34	34	36	35	
45365	NCA10	RES	129	6 DORAL GR, LUDDENHAM NSW 2745	129	35	39	35	32	45	34	40	42	35	40	32	32	34	33	
45385	NCA10	RES	131	7 DORAL GR, LUDDENHAM NSW 2745	131	35	39	35	32	44	34	40	42	35	40	32	32	34	33	
45405	NCA10	RES	132	8 DORAL GR, LUDDENHAM NSW 2745	132	35	39	34	31	44	33	39	41	34	39	31	32	33	32	
45419	NCA10	RES	133	9 DORAL GR, LUDDENHAM NSW 2745	133	35	40	35	32	45	35	41	43	36	41	33	34	35	34	

45443	NCA10	RES	137	2111-2141 ELIZABETH DR, LUDDENHAM NSW 2745	137	35	25	20	17	27	17	23	25	17	33	24	24	26	25
45460	NCA10	RES	146	10 FARMINGDALE CT, LUDDENHAM NSW 2745	146	35	33	28	25	37	27	33	35	28	46	34	34	36	35
45480	NCA10	RES	148	11 FARMINGDALE CT, LUDDENHAM NSW 2745	148	35	31	27	24	36	26	32	34	26	46	34	35	36	35
45506	NCA10	RES	149	12 FARMINGDALE CT, LUDDENHAM NSW 2745	149	35	35	31	28	40	30	36	38	31	50	38	38	39	39
45563	NCA10	RES	151	14 FARMINGDALE CT, LUDDENHAM NSW 2745	151	35	33	28	25	38	28	34	35	28	51	38	38	40	39
45591	NCA10	RES	152	16 FARMINGDALE CT, LUDDENHAM NSW 2745	152	35	32	27	24	39	29	35	37	30	51	36	36	38	37
45618	NCA10	RES	154	17 FARMINGDALE CT, LUDDENHAM NSW 2745	154	35	27	22	19	35	25	31	33	26	46	33	33	35	34
45622	NCA10	RES	155	18 FARMINGDALE CT, LUDDENHAM NSW 2745	155	35	32	28	25	37	27	33	35	28	47	34	34	36	35
45645	NCA10	RES	157	2 FARMINGDALE CT, LUDDENHAM NSW 2745	157	35	36	31	28	40	30	36	38	31	47	36	36	38	37
45667	NCA10	RES	159	22 FARMINGDALE CT, LUDDENHAM NSW 2745	159	35	35	30	27	39	29	35	37	30	49	36	36	38	37
45710	NCA10	RES	160	5 FARMINGDALE CT, LUDDENHAM NSW 2745	160	35	35	30	27	39	29	35	37	30	47	36	36	37	37
45747	NCA10	RES	162	6 FARMINGDALE CT, LUDDENHAM NSW 2745	162	35	28	23	20	37	27	33	35	28	46	35	32	37	37
45789	NCA10	RES	165	7 FARMINGDALE CT, LUDDENHAM NSW 2745	165	35	32	28	25	36	26	32	34	27	44	32	32	34	33
45794	NCA10	RES	166	8 FARMINGDALE CT, LUDDENHAM NSW 2745	166	35	35	30	27	39	30	36	37	30	48	34	34	36	35
45822	NCA10	RES	167	9 FARMINGDALE CT, LUDDENHAM NSW 2745	167	35	32	27	24	36	26	32	34	27	44	32	32	34	33
45845	NCA10	RES	169	10 GANTON WAY, LUDDENHAM NSW 2745	169	35	33	29	26	39	28	34	36	29	43	34	34	35	35
45880	NCA10	RES	170	12 GANTON WAY, LUDDENHAM NSW 2745	170	35	36	31	28	40	30	36	38	31	44	34	34	36	35
45898	NCA10	RES	171	16 GANTON WAY, LUDDENHAM NSW 2745	171	35	35	31	28	40	30	36	37	30	44	34	34	36	35
45938	NCA10	RES	172	18 GANTON WAY, LUDDENHAM NSW 2745	172	35	35	31	28	40	30	36	37	30	44	34	34	36	35
45970	NCA10	RES	174	2 GANTON WAY, LUDDENHAM NSW 2745	174	35	36	32	29	41	30	36	38	31	40	30	31	32	31
45989	NCA10	RES	176	4 GANTON WAY, LUDDENHAM NSW 2745	176	35	36	31	28	40	30	36	38	31	42	32	32	34	33
46030	NCA10	RES	178	6 GANTON WAY, LUDDENHAM NSW 2745	178	35	34	29	26	41	31	37	38	31	41	33	34	35	34
46039	NCA10	RES	179	8 GANTON WAY, LUDDENHAM NSW 2745	179	35	33	29	26	38	28	34	36	29	43	34	34	35	35
46076	NCA10	RES	182	10 HALMSTAD BVD, LUDDENHAM NSW 2745	182	35	36	31	28	41	31	37	39	32	41	33	33	35	34
46105	NCA10	RES	185	11 HALMSTAD BVD, LUDDENHAM NSW 2745	185	35	37	32	29	43	33	39	40	33	43	35	35	37	36
46111	NCA10	RES	186	12 HALMSTAD BVD, LUDDENHAM NSW 2745	186	35	36	31	28	43	33	39	40	33	42	34	34	35	35
46141	NCA10	RES	189	13 HALMSTAD BVD, LUDDENHAM NSW 2745	189	35	39	34	31	44	34	40	42	35	43	36	36	37	37
46178	NCA10	RES	191	14 HALMSTAD BVD, LUDDENHAM NSW 2745	191	35	34	29	26	40	30	36	38	31	43	34	34	36	35
46204	NCA10	RES	193	15 HALMSTAD BVD, LUDDENHAM NSW 2745	193	35	36	31	28	42	32	38	39	32	44	35	35	37	36
46252	NCA10	RES	196	19 HALMSTAD BVD, LUDDENHAM NSW 2745	196	35	35	31	28	41	31	37	39	32	44	35	35	37	36
46260	NCA10	RES	198	20 HALMSTAD BVD, LUDDENHAM NSW 2745	198	35	34	30	27	39	29	35	37	30	42	34	34	36	35
46296	NCA10	RES	200	22 HALMSTAD BVD, LUDDENHAM NSW 2745	200	35	34	29	26	41	29	35	37	30	47	34	35	36	35
46323	NCA10	RES	201	23 HALMSTAD BVD, LUDDENHAM NSW 2745	201	35	37	33	30	43	34	40	42	35	47	38	38	40	39
46329	NCA10	RES	203	24 HALMSTAD BVD, LUDDENHAM NSW 2745	203	35	34	29	26	38	28	34	36	29	43	32	33	34	33
46355	NCA10	RES	205	25 HALMSTAD BVD, LUDDENHAM NSW 2745	205	35	35	30	27	40	30	36	38	31	45	36	36	37	37
46393	NCA10	RES	207	26 HALMSTAD BVD, LUDDENHAM NSW 2745	207	35	34	29	26	38	28	34	36	29	44	33	33	35	34
46420	NCA10	RES	209	27 HALMSTAD BVD, LUDDENHAM NSW 2745	209	35	35	30	27	42	32	38	40	32	46	37	37	39	38
46447	NCA10	RES	212	28 HALMSTAD BVD, LUDDENHAM NSW 2745	212	35	33	29	26	38	28	34	36	29	44	32	32	34	33
46454	NCA10	RES	213	3 HALMSTAD BVD, LUDDENHAM NSW 2745	213	35	40	35	32	46	36	42	43	36	45	37	37	39	38
46475	NCA10	RES	214	39 HALMSTAD BVD, LUDDENHAM NSW 2745	214	35	35	31	28	39	29	35	37	30	47	34	35	36	35
46521	NCA10	RES	216	4 HALMSTAD BVD, LUDDENHAM NSW 2745	216	35	39	34	31	45	34	40	42	35	40	32	33	34	33
46529	NCA10	RES	218	5 HALMSTAD BVD, LUDDENHAM NSW 2745	218	35	37	33	30	45	35	41	43	36	44	36	37	38	37
46553	NCA10	RES	219	7 HALMSTAD BVD, LUDDENHAM NSW 2745	219	35	39	35	32	45	35	41	43	36	43	35	36	37	36
46586	NCA10	RES	222	8 HALMSTAD BVD, LUDDENHAM NSW 2745	222	35	36	31	28	42	31	37	39	32	43	35	36	37	36
46614	NCA10	RES	223	1 HUMEWOOD PL, LUDDENHAM NSW 2745	223	35	37	33	30	42	32	38	40	32	43	34	34	36	35
46616	NCA10	RES	224	10 HUMEWOOD PL, LUDDENHAM NSW 2745	224	35	34	29	26	40	30	36	38	31	42	33	34	35	34
46666	NCA10	RES	229	11 HUMEWOOD PL, LUDDENHAM NSW 2745	229	35	34	29	26	39	29	35	36	29	41	32	32	34	33
46670	NCA10	RES	230	12 HUMEWOOD PL, LUDDENHAM NSW 2745	230	35	37	32	29	42	32	38	40	33	45	36	36	38	37
46692	NCA10	RES	231	14 HUMEWOOD PL, LUDDENHAM NSW 2745	231	35	37	33	30	42	32	38	40	33	45	33	34	35	34
46716	NCA10	RES	232	15 HUMEWOOD PL, LUDDENHAM NSW 2745	232	35	34	29	26	39	29	35	37	30	45	35	35	37	36
46778	NCA10	RES	236	2 HUMEWOOD PL, LUDDENHAM NSW 2745	236	35	32	28	25	39	29	35	37	30	40	32	32	33	33
46784	NCA10	RES	237	22 HUMEWOOD PL, LUDDENHAM NSW 2745	237	35	34	29	26	38	28	34	36	29	45	33	33	35	34
46832	NCA10	RES	241	24 HUMEWOOD PL, LUDDENHAM NSW 2745	241	35	33	29	26	38	28	34	35	28	45	32	33	34	34
46835	NCA10	RES	242	3 HUMEWOOD PL, LUDDENHAM NSW 2745	242	35	34	30	27	39	29	35	37	30	38	30	31	32	32
46879	NCA10	RES	244	4 HUMEWOOD PL, LUDDENHAM NSW 2745	244	35	35	31	28	40	30	36	38	31	43	32	33	34	33
46883	NCA10	RES	246	5 HUMEWOOD PL, LUDDENHAM NSW 2745	246	35	29	24	21	39	29	35	37	30	43	34	34	36	35
46926	NCA10	RES	250	6 HUMEWOOD PL, LUDDENHAM NSW 2745	250	35	38	33	30	43	32	38	40	33	44	33	33	35	34
46940	NCA10	RES	252	7 HUMEWOOD PL, LUDDENHAM NSW 2745	252	35	34	30	27	39	29	35	37	30	41	32	32	34	33
46986	NCA10	RES	256	9 HUMEWOOD PL, LUDDENHAM NSW 2745	256	35	36	32	29	42	32	38	39	32	42	32	32	34	33
46994	NCA10	RES	258	336-348 LUDDENHAM RD, LUDDENHAM NSW 2745	258	35	41	37	34	41	30	36	38	31	42	33	33	34	34
47000	NCA10	RES	265	339-363 LUDDENHAM RD, LUDDENHAM NSW 2745	265	35	43	38	35	42	31	37	39	32	43	34	35	36	35
47005	NCA10	RES	275	405-423 LUDDENHAM RD, LUDDENHAM NSW 2745	275	35	48	44	41	47	36	42	44	37	48	40	40	42	41
47015	NCA10	RES	279	425-441 LUDDENHAM RD, LUDDENHAM NSW 2745	279	35	45	41	38	52	40	46	48	41	47	37	38	40	39
47023	NCA10	RES	288	425A LUDDENHAM RD, LUDDENHAM NSW 2745	288	35	49	44	41	56	44	50	52	45	48	40	41	42	41
47046	NCA10	RES	292	443-457 LUDDENHAM RD, LUDDENHAM NSW 2745	292	35	54	49	46	58	47	53	55	48	53	45	45	47	46
47067	NCA10	RES	302	611-639 LUDDENHAM RD, LUDDENHAM NSW 2745	302	35	40	35	32	44	34	40	42	35	55	48	48	49	49
47073	NCA10	RES	304	611A LUDDENHAM RD, LUDDENHAM NSW 2745	304	35	39	34	31	43	33	39	41	34	53	45	45	46	46
47077	NCA10	RES	308	641-675 LUDDENHAM RD, LUDDENHAM NSW 2745	308	35	36	31	28	38	28	34	36	29	45	37	37	38	38
47101	NCA10	RES	311	644-652 LUDDENHAM RD, LUDDENHAM NSW 2745	311	35	38	33	30	43	33	39	41	34	57	50	50	52	51
47107	NCA10	RES	314	654-658 LUDDENHAM RD, LUDDENHAM NSW 2745	314	35	37	33	30	42	32	38	40	33	55	47	48	49	48
47112	NCA10	RES	319	660-670 LUDDENHAM RD, LUDDENHAM NSW 2745	319	35	36	31	28	40	30	36	38	31	49	41	42	43	42
47118	NCA10	RES	321	672-686 LUDDENHAM RD, LUDDENHAM NSW 2745	321	35	35	30	27	39	29	35	36	29	48	40	40	42	41
47167	NCA10	RES	329	677-691 LUDDENHAM RD, LUDDENHAM NSW 2745	329	35	35	31	28	38	28	34	36	29	48	41	41	42	42
47196	NCA10	RES	335	688-708 LUDDENHAM RD, LUDDENHAM NSW 2745	335	35	34	29	26	37	27	33	35	28	45	37	37	39	38

47243	NCA10	RES	345	693-711 LUDDENHAM RD, LUDDENHAM NSW 2745	345	35	26	22	19	36	26	32	34	27	42	34	34	36	35
47276	NCA10	RES	350	2179A ELIZABETH DR, LUDDENHAM NSW 2745	5866	35	26	22	19	26	16	22	24	17	30	22	22	24	23
47286	NCA10	RES	351	710-732 LUDDENHAM RD, LUDDENHAM NSW 2745	351	35	32	28	25	35	25	31	33	25	42	34	34	35	35
47299	NCA10	RES	352	713-733 LUDDENHAM RD, LUDDENHAM NSW 2745	352	35	35	30	27	37	27	33	35	28	43	35	35	37	36
47307	NCA10	RES	354	2207-2223 ELIZABETH DR, LUDDENHAM NSW 2745	5870	35	22	18	15	23	13	19	21	14	28	20	20	22	21
47315	NCA10	RES	355	734 LUDDENHAM RD, LUDDENHAM NSW 2745	355	35	23	19	16	24	14	20	22	15	29	21	21	23	22
47350	NCA10	RES	358	2207-2223 ELIZABETH DR, LUDDENHAM NSW 2745	5874	35	23	18	15	24	14	20	22	15	29	21	21	22	22
47356	NCA10	RES	359	734-750 LUDDENHAM RD, LUDDENHAM NSW 2745	359	35	34	29	26	36	26	32	34	27	41	33	33	35	34
47371	NCA10	RES	361	2225-2239 ELIZABETH DR, LUDDENHAM NSW 2745	5877	35	25	20	17	26	16	22	24	17	30	22	23	24	23
47400	NCA10	RES	367	KARINGAL 752-810 LUDDENHAM RD, LUDDENHAM NSW 2745	367	35	29	25	22	33	23	29	31	24	40	32	32	33	33
47413	NCA10	RES	379	OROO LONG PARK 2510-2550 ELIZABETH DR, LUDDENHAM NSW 2745	5895	35	21	17	14	22	12	18	20	13	28	19	19	21	20
47490	NCA10	RES	386	812-844 LUDDENHAM RD, LUDDENHAM NSW 2745	386	35	24	20	17	27	17	23	25	18	34	26	26	28	27
47499	NCA10	RES	390	2600 ELIZABETH DR, LUDDENHAM NSW 2745	5906	35	22	17	14	21	11	17	19	12	27	19	19	21	20
47535	NCA10	RES	395	765 LUDDENHAM RD, LUDDENHAM NSW 2745	5911	35	30	25	22	31	21	27	29	22	36	29	29	30	30
47561	NCA10	RES	407	777-819 LUDDENHAM RD, LUDDENHAM NSW 2745	5923	35	27	22	19	29	19	25	27	20	35	27	27	29	28
47576	NCA10	RES	409	821 LUDDENHAM RD, LUDDENHAM NSW 2745	5925	35	26	21	18	30	20	26	28	21	35	28	28	29	29
47588	NCA10	RES	421	851-867 LUDDENHAM RD, LUDDENHAM NSW 2745	5937	35	28	24	21	29	20	26	28	21	35	27	27	29	28
47612	NCA10	RES	429	869-885 LUDDENHAM RD, LUDDENHAM NSW 2745	5945	35	25	20	17	26	16	22	24	17	31	23	23	25	24
47628	NCA10	RES	430	892 LUDDENHAM RD, LUDDENHAM NSW 2745	430	35	26	22	19	28	18	24	26	19	33	25	25	27	26
47648	NCA10	RES	432	869-885 LUDDENHAM RD, LUDDENHAM NSW 2745	5948	35	26	22	19	28	18	24	26	19	33	25	25	27	26
47660	NCA10	RES	435	869A LUDDENHAM RD, LUDDENHAM NSW 2745	5951	35	24	19	16	25	15	21	23	16	30	23	23	24	24
47662	NCA10	RES	437	892B LUDDENHAM RD, LUDDENHAM NSW 2745	437	35	23	19	16	25	15	21	23	16	31	23	23	24	24
47700	NCA10	RES	440	1 MEDINAH AV, LUDDENHAM NSW 2745	440	35	38	33	30	40	30	36	37	30	37	29	29	31	30
47728	NCA10	RES	442	11 MEDINAH AV, LUDDENHAM NSW 2745	442	35	34	29	26	35	25	31	33	26	33	26	26	28	27
47739	NCA10	RES	444	12 MEDINAH AV, LUDDENHAM NSW 2745	444	35	38	33	30	40	29	35	37	30	38	30	30	32	31
47755	NCA10	RES	445	13 MEDINAH AV, LUDDENHAM NSW 2745	445	35	38	34	31	39	28	34	36	29	37	29	30	31	30
47771	NCA10	RES	447	14 MEDINAH AV, LUDDENHAM NSW 2745	447	35	36	31	28	40	29	35	37	30	37	29	29	31	30
47797	NCA10	RES	448	15 MEDINAH AV, LUDDENHAM NSW 2745	448	35	36	31	28	38	28	34	36	28	34	26	27	29	28
47814	NCA10	RES	450	16 MEDINAH AV, LUDDENHAM NSW 2745	450	35	38	34	31	27	17	23	25	18	38	30	30	31	31
47842	NCA10	RES	451	17 MEDINAH AV, LUDDENHAM NSW 2745	451	35	32	27	24	38	28	34	35	28	34	26	26	27	27
47878	NCA10	RES	453	19 MEDINAH AV, LUDDENHAM NSW 2745	453	35	38	33	30	41	30	36	38	31	37	29	29	31	30
47895	NCA10	RES	454	1A MEDINAH AV, LUDDENHAM NSW 2745	454	35	40	36	33	43	33	39	40	33	40	32	32	33	33
47923	NCA10	RES	455	2 MEDINAH AV, LUDDENHAM NSW 2745	455	35	40	36	33	41	30	36	38	31	39	31	32	33	33
47946	NCA10	RES	456	21 MEDINAH AV, LUDDENHAM NSW 2745	456	35	35	30	27	38	28	34	36	28	34	26	26	28	27
47960	NCA10	RES	457	23 MEDINAH AV, LUDDENHAM NSW 2745	457	35	35	30	27	38	28	34	36	28	34	26	26	28	27
47978	NCA10	RES	458	24 MEDINAH AV, LUDDENHAM NSW 2745	458	35	36	31	28	42	31	37	39	32	37	29	30	31	30
48020	NCA10	RES	460	25 MEDINAH AV, LUDDENHAM NSW 2745	460	35	35	30	27	38	27	33	35	28	34	26	26	28	27
48053	NCA10	RES	462	26 MEDINAH AV, LUDDENHAM NSW 2745	462	35	35	31	28	39	29	35	36	29	37	27	27	28	28
48060	NCA10	RES	463	27 MEDINAH AV, LUDDENHAM NSW 2745	463	35	35	30	27	38	28	34	36	29	34	26	26	28	27
48098	NCA10	RES	464	29 MEDINAH AV, LUDDENHAM NSW 2745	464	35	37	33	30	41	30	36	38	31	36	28	29	30	29
48125	NCA10	RES	466	3 MEDINAH AV, LUDDENHAM NSW 2745	466	35	37	33	30	40	29	35	37	30	36	28	29	30	29
48135	NCA10	RES	467	31 MEDINAH AV, LUDDENHAM NSW 2745	467	35	34	30	27	38	28	34	36	28	34	26	26	28	27
48155	NCA10	RES	468	4 MEDINAH AV, LUDDENHAM NSW 2745	468	35	37	32	29	41	30	36	38	31	36	28	29	30	30
48173	NCA10	RES	470	5 MEDINAH AV, LUDDENHAM NSW 2745	470	35	37	32	29	40	29	35	37	30	36	28	29	30	29
48197	NCA10	RES	471	6 MEDINAH AV, LUDDENHAM NSW 2745	471	35	40	35	32	43	32	38	40	33	39	31	31	33	32
48209	NCA10	RES	473	7 MEDINAH AV, LUDDENHAM NSW 2745	473	35	39	35	32	42	31	37	39	32	38	30	31	32	31
48248	NCA10	RES	474	8 MEDINAH AV, LUDDENHAM NSW 2745	474	35	40	35	32	43	33	39	41	34	39	31	32	33	32
48254	NCA10	RES	475	9 MEDINAH AV, LUDDENHAM NSW 2745	475	35	36	31	28	39	28	34	36	29	35	27	28	29	28
48282	NCA10	RES	477	10 PENNARD CR, LUDDENHAM NSW 2745	477	35	37	32	29	43	33	39	40	33	39	31	31	33	32
48306	NCA10	RES	480	11 PENNARD CR, LUDDENHAM NSW 2745	480	35	36	32	29	43	32	38	40	33	38	30	30	32	31
48361	NCA10	RES	482	12 PENNARD CR, LUDDENHAM NSW 2745	482	35	37	32	29	42	31	37	39	32	37	29	29	31	30
48372	NCA10	RES	483	14 PENNARD CR, LUDDENHAM NSW 2745	483	35	39	34	31	44	33	39	41	34	39	31	31	33	32
48393	NCA10	RES	486	15 PENNARD CR, LUDDENHAM NSW 2745	486	35	36	32	29	40	29	35	37	30	35	27	28	29	28
48426	NCA10	RES	488	16 PENNARD CR, LUDDENHAM NSW 2745	488	35	39	34	31	44	33	39	41	34	40	31	32	33	32
48460	NCA10	RES	490	2 PENNARD CR, LUDDENHAM NSW 2745	490	35	37	33	30	42	31	37	39	32	38	30	30	32	31
48482	NCA10	RES	492	3 PENNARD CR, LUDDENHAM NSW 2745	492	35	37	33	30	41	30	36	38	31	36	28	29	30	29
48548	NCA10	RES	497	4 PENNARD CR, LUDDENHAM NSW 2745	497	35	37	32	29	40	29	35	37	30	37	29	30	31	30
48563	NCA10	RES	498	5 PENNARD CR, LUDDENHAM NSW 2745	498	35	37	32	29	41	30	36	38	31	36	28	28	30	29
48581	NCA10	RES	500	6 PENNARD CR, LUDDENHAM NSW 2745	500	35	37	33	30	42	31	37	39	32	36	28	29	30	29
48608	NCA10	RES	503	7 PENNARD CR, LUDDENHAM NSW 2745	503	35	37	32	29	41	30	36	38	31	36	28	28	30	29
48623	NCA10	RES	504	8 PENNARD CR, LUDDENHAM NSW 2745	504	35	39	35	32	44	33	39	41	34	39	31	31	33	32
48651	NCA10	RES	505	9 PENNARD CR, LUDDENHAM NSW 2745	505	35	36	32	29	40	30	36	38	30	36	28	28	30	29
48667	NCA10	RES	507	10 PINE VALLEY CR, LUDDENHAM NSW 2745	507	35	36	32	29	40	29	35	37	30	37	29	29	31	30
48708	NCA10	RES	510	11 PINE VALLEY CR, LUDDENHAM NSW 2745	510	35	37	32	29	42	31	37	39	32	38	30	30	31	31
48716	NCA10	RES	511	12 PINE VALLEY CR, LUDDENHAM NSW 2745	511	35	38	34	31	42	31	37	39	32	37	29	30	31	30
48738	NCA10	RES	512	13 PINE VALLEY CR, LUDDENHAM NSW 2745	512	35	38	34	31	43	32	38	40	33	38	30	30	32	31
48756	NCA10	RES	513	15 PINE VALLEY CR, LUDDENHAM NSW 2745	513	35	35	31	28	40	29	35	37	30	37	29	30	31	30
48770	NCA10	RES	514	17 PINE VALLEY CR, LUDDENHAM NSW 2745	514	35	36	31	28	42	31	37	39	32	37	29	30	31	30
48809	NCA10	RES	516	2 PINE VALLEY CR, LUDDENHAM NSW 2745	516	35	39	35	32	42	32	38	39	32	38	30	31	32	32
48821	NCA10	RES	517	3 PINE VALLEY CR, LUDDENHAM NSW 2745	517	35	37	33	30	43	32	38	40	33	38	30	30	32	31
48855	NCA10	RES	519	4 PINE VALLEY CR, LUDDENHAM NSW 2745	519	35	39	35	32	40	29	35	37	30	38	30	31	32	32
48871	NCA10	RES	520	5 PINE VALLEY CR, LUDDENHAM NSW 2745	520	35	40	35	32	43	32	38	39	32	39	31	31	33	32
48894	NCA10	RES	522	6 PINE VALLEY CR, LUDDENHAM NSW 2745	522	35	37	32	29	40	29	35	37	30	37	28	28	30	29
48907	NCA10	RES	524	7 PINE VALLEY CR, LUDDENHAM NSW 2745	524	35	39	35	32	43	32	38	40	33	39	31	31	33	32

48921	NCA10	RES	525	8 PINE VALLEY CR, LUDDENHAM NSW 2745	525	35	36	32	29	40	29	35	37	30	35	28	28	29	29
48943	NCA10	RES	527	9 PINE VALLEY CR, LUDDENHAM NSW 2745	527	35	39	35	32	41	30	36	38	31	38	31	31	32	32
48950	NCA10	RES	528	1 PORTRUSH CR, LUDDENHAM NSW 2745	528	35	43	38	32	50	39	45	46	39	43	35	36	37	36
48993	NCA10	RES	532	10 PORTRUSH CR, LUDDENHAM NSW 2745	532	35	42	37	34	46	35	41	43	36	41	33	33	35	34
49002	NCA10	RES	533	11 PORTRUSH CR, LUDDENHAM NSW 2745	533	35	42	37	34	54	42	48	50	43	45	37	37	38	38
49036	NCA10	RES	537	12 PORTRUSH CR, LUDDENHAM NSW 2745	537	35	32	27	24	41	31	37	38	31	41	33	33	35	34
49088	NCA10	RES	539	13 PORTRUSH CR, LUDDENHAM NSW 2745	539	35	45	41	38	53	41	47	49	42	45	37	37	39	38
49106	NCA10	RES	540	14 PORTRUSH CR, LUDDENHAM NSW 2745	540	35	41	37	34	47	36	42	44	37	40	33	33	34	34
49154	NCA10	RES	545	15 PORTRUSH CR, LUDDENHAM NSW 2745	545	35	43	39	36	53	42	48	49	42	44	35	36	38	37
49169	NCA10	RES	546	16 PORTRUSH CR, LUDDENHAM NSW 2745	546	35	34	29	26	48	37	43	45	38	41	33	34	36	35
49243	NCA10	RES	552	17 PORTRUSH CR, LUDDENHAM NSW 2745	552	35	43	39	36	55	44	50	52	45	44	35	38	39	38
49271	NCA10	RES	555	18 PORTRUSH CR, LUDDENHAM NSW 2745	555	35	44	40	37	49	38	44	46	38	43	35	36	37	36
49277	NCA10	RES	557	19 PORTRUSH CR, LUDDENHAM NSW 2745	557	35	47	42	39	57	45	51	53	46	46	38	39	40	39
49304	NCA10	RES	559	2 PORTRUSH CR, LUDDENHAM NSW 2745	559	35	45	40	37	48	37	43	45	38	44	36	36	38	37
49338	NCA10	RES	561	21 PORTRUSH CR, LUDDENHAM NSW 2745	561	35	44	39	36	56	44	50	52	44	45	38	38	39	39
49376	NCA10	RES	562	22 PORTRUSH CR, LUDDENHAM NSW 2745	562	35	44	40	37	50	39	45	47	39	43	36	36	37	37
49401	NCA10	RES	565	23 PORTRUSH CR, LUDDENHAM NSW 2745	565	35	43	39	36	54	42	48	50	43	45	37	37	39	38
49440	NCA10	RES	569	24 PORTRUSH CR, LUDDENHAM NSW 2745	569	35	40	35	32	49	36	42	44	37	41	33	34	35	34
49451	NCA10	RES	570	26 PORTRUSH CR, LUDDENHAM NSW 2745	570	35	44	39	36	53	42	48	50	43	44	36	37	38	38
49497	NCA10	RES	573	28 PORTRUSH CR, LUDDENHAM NSW 2745	573	35	40	36	33	49	39	45	46	39	42	34	34	36	35
49502	NCA10	RES	574	30 PORTRUSH CR, LUDDENHAM NSW 2745	574	35	34	29	26	46	37	43	44	37	42	34	35	36	35
49566	NCA10	RES	578	34 PORTRUSH CR, LUDDENHAM NSW 2745	578	35	39	34	31	47	37	43	45	38	43	35	36	37	36
49600	NCA10	RES	582	36 PORTRUSH CR, LUDDENHAM NSW 2745	582	35	36	31	28	51	40	46	48	41	44	36	36	37	37
49621	NCA10	RES	583	38 PORTRUSH CR, LUDDENHAM NSW 2745	583	35	46	41	38	57	46	52	54	47	47	39	39	41	40
49649	NCA10	RES	585	4 PORTRUSH CR, LUDDENHAM NSW 2745	585	35	45	40	37	46	35	41	43	36	44	36	36	38	37
49676	NCA10	RES	586	40 PORTRUSH CR, LUDDENHAM NSW 2745	586	35	44	39	36	55	44	50	51	44	46	38	39	40	39
49684	NCA10	RES	587	42 PORTRUSH CR, LUDDENHAM NSW 2745	587	35	40	36	33	56	44	50	52	45	44	36	37	38	37
49705	NCA10	RES	589	44 PORTRUSH CR, LUDDENHAM NSW 2745	589	35	44	40	37	57	45	51	53	46	47	39	39	40	40
49756	NCA10	RES	592	46 PORTRUSH CR, LUDDENHAM NSW 2745	592	35	45	40	37	60	48	54	56	49	47	39	40	41	40
49765	NCA10	RES	593	48 PORTRUSH CR, LUDDENHAM NSW 2745	593	35	47	43	40	59	46	52	54	46	47	40	40	41	41
49815	NCA10	RES	598	5 PORTRUSH CR, LUDDENHAM NSW 2745	598	35	44	40	37	49	37	43	45	38	44	36	37	38	37
49859	NCA10	RES	602	52 PORTRUSH CR, LUDDENHAM NSW 2745	602	35	35	30	27	58	45	51	53	46	45	37	37	39	38
49894	NCA10	RES	604	54 PORTRUSH CR, LUDDENHAM NSW 2745	604	35	45	40	37	56	43	49	51	44	44	36	37	38	37
49899	NCA10	RES	605	56 PORTRUSH CR, LUDDENHAM NSW 2745	605	35	44	40	37	54	42	48	50	43	45	37	38	39	38
49925	NCA10	RES	606	58 PORTRUSH CR, LUDDENHAM NSW 2745	606	35	46	42	39	54	42	48	49	42	45	37	38	39	38
49974	NCA10	RES	610	6 PORTRUSH CR, LUDDENHAM NSW 2745	610	35	42	37	34	44	35	41	42	35	41	33	33	35	34
49982	NCA10	RES	611	60 PORTRUSH CR, LUDDENHAM NSW 2745	611	35	44	40	37	53	41	47	49	41	44	35	36	37	36
50021	NCA10	RES	614	62 PORTRUSH CR, LUDDENHAM NSW 2745	614	35	46	42	39	52	40	46	48	41	46	38	38	39	39
50029	NCA10	RES	615	64 PORTRUSH CR, LUDDENHAM NSW 2745	615	35	44	39	36	53	41	47	49	42	45	37	37	38	38
50050	NCA10	RES	617	66 PORTRUSH CR, LUDDENHAM NSW 2745	617	35	46	41	38	50	38	44	46	39	45	37	37	39	38
50071	NCA10	RES	618	68 PORTRUSH CR, LUDDENHAM NSW 2745	618	35	43	39	36	50	38	44	46	39	43	35	36	37	36
50108	NCA10	RES	620	8 PORTRUSH CR, LUDDENHAM NSW 2745	620	35	42	37	34	47	36	42	43	36	41	33	33	35	34
50134	NCA10	RES	622	11 TWIN CREEKS DR, LUDDENHAM NSW 2745	622	35	37	33	30	41	31	37	38	31	39	31	31	33	32
50185	NCA10	RES	626	13 TWIN CREEKS DR, LUDDENHAM NSW 2745	626	35	37	33	30	42	31	37	39	32	38	30	30	31	31
50196	NCA10	RES	627	14 TWIN CREEKS DR, LUDDENHAM NSW 2745	627	35	40	36	33	44	34	40	41	34	40	32	32	34	33
50249	NCA10	RES	632	15 TWIN CREEKS DR, LUDDENHAM NSW 2745	632	35	37	33	30	44	34	40	41	34	39	31	31	33	32
50271	NCA10	RES	635	17 TWIN CREEKS DR, LUDDENHAM NSW 2745	635	35	38	33	30	44	34	40	42	35	39	32	32	33	33
50317	NCA10	RES	636	18 TWIN CREEKS DR, LUDDENHAM NSW 2745	636	35	40	36	33	46	34	40	42	35	40	33	33	34	34
50325	NCA10	RES	643	20 TWIN CREEKS DR, LUDDENHAM NSW 2745	643	35	38	33	30	42	31	37	39	32	37	29	29	31	30
50341	NCA10	RES	644	21 TWIN CREEKS DR, LUDDENHAM NSW 2745	644	35	37	33	30	43	32	38	40	33	37	29	30	31	30
50383	NCA10	RES	648	22 TWIN CREEKS DR, LUDDENHAM NSW 2745	648	35	40	36	33	45	34	40	42	35	39	32	32	33	33
50403	NCA10	RES	652	24 TWIN CREEKS DR, LUDDENHAM NSW 2745	652	35	41	36	33	43	33	39	40	33	40	32	32	34	33
50438	NCA10	RES	653	26 TWIN CREEKS DR, LUDDENHAM NSW 2745	653	35	40	35	32	46	35	41	43	36	40	32	32	34	33
50480	NCA10	RES	655	27 TWIN CREEKS DR, LUDDENHAM NSW 2745	655	35	33	28	25	43	33	39	41	33	41	31	32	33	32
50506	NCA10	RES	657	28 TWIN CREEKS DR, LUDDENHAM NSW 2745	657	35	38	34	31	46	36	42	44	37	41	33	33	35	34
50521	NCA10	RES	658	29 TWIN CREEKS DR, LUDDENHAM NSW 2745	658	35	38	33	30	44	34	40	41	34	42	34	34	36	35
50546	NCA10	RES	661	30 TWIN CREEKS DR, LUDDENHAM NSW 2745	661	35	38	33	30	43	33	39	41	33	39	30	31	32	32
50575	NCA10	RES	663	31 TWIN CREEKS DR, LUDDENHAM NSW 2745	663	35	38	33	30	44	33	39	41	34	40	32	32	34	33
50595	NCA10	RES	666	32 TWIN CREEKS DR, LUDDENHAM NSW 2745	666	35	41	36	33	46	36	42	43	36	40	33	33	34	34
50638	NCA10	RES	669	33 TWIN CREEKS DR, LUDDENHAM NSW 2745	669	35	37	32	29	43	33	39	40	33	40	32	32	33	33
50668	NCA10	RES	672	34 TWIN CREEKS DR, LUDDENHAM NSW 2745	672	35	40	35	32	45	35	41	43	36	42	34	34	36	35
50692	NCA10	RES	673	35 TWIN CREEKS DR, LUDDENHAM NSW 2745	673	35	39	35	32	45	35	41	43	36	42	34	35	36	35
50741	NCA10	RES	676	36 TWIN CREEKS DR, LUDDENHAM NSW 2745	676	35	38	33	30	44	33	39	41	34	38	30	31	32	31
50746	NCA10	RES	677	37 TWIN CREEKS DR, LUDDENHAM NSW 2745	677	35	36	31	28	42	32	38	40	32	40	31	32	33	32
50778	NCA10	RES	682	38 TWIN CREEKS DR, LUDDENHAM NSW 2745	682	35	41	36	33	45	34	40	42	35	41	32	33	34	33
50806	NCA10	RES	683	39 TWIN CREEKS DR, LUDDENHAM NSW 2745	683	35	36	32	29	42	32	38	39	32	40	32	32	34	33
50827	NCA10	RES	684	40 TWIN CREEKS DR, LUDDENHAM NSW 2745	684	35	39	34	31	47	37	43	45	38	43	35	36	37	36
50841	NCA10	RES	686	41 TWIN CREEKS DR, LUDDENHAM NSW 2745	686	35	35	31	28	41	31	37	39	32	40	32	32	33	33
50864	NCA10	RES	688	42 TWIN CREEKS DR, LUDDENHAM NSW 2745	688	35	39	34	31	47	37	43	45	38	43	35	35	37	36
50903	NCA10	RES	692	43 TWIN CREEKS DR, LUDDENHAM NSW 2745	692	35	37	33	30	44	34	40	42	35	42	33	33	34	34
50921	NCA10	RES	694	44 TWIN CREEKS DR, LUDDENHAM NSW 2745	694	35	39	35	32	47	37	43	45	38	43	35	36	37	36
50955	NCA10	RES	696	45 TWIN CREEKS DR, LUDDENHAM NSW 2745	696	35	36	31	28	43	32	38	40	32	44	32	33	34	33
51001	NCA10	RES	699	47 TWIN CREEKS DR, LUDDENHAM NSW 2745	699	35	35	31	28	40	30	36	38	31	39	31	31	33	32
51019	NCA10	RES	700	48 TWIN CREEKS DR, LUDDENHAM NSW 2745	700	35	40	36	33	47	37	43	45	38	44	36	36	37	36

51029	NCA10	RES	702	49 TWIN CREEKS DR, LUDDENHAM NSW 2745	702	35	32	27	24	40	30	36	37	30	39	29	29	31	30
51054	NCA10	RES	704	5 TWIN CREEKS DR, LUDDENHAM NSW 2745	704	35	38	33	30	41	30	36	38	31	37	29	29	31	30
51076	NCA10	RES	705	50 TWIN CREEKS DR, LUDDENHAM NSW 2745	705	35	39	35	32	48	37	43	45	38	44	36	37	38	37
51099	NCA10	RES	708	51 TWIN CREEKS DR, LUDDENHAM NSW 2745	708	35	33	28	25	41	31	37	39	32	42	33	34	35	34
51160	NCA10	RES	710	52 TWIN CREEKS DR, LUDDENHAM NSW 2745	710	35	40	35	32	45	35	41	43	36	43	35	35	37	36
51171	NCA10	RES	712	53 TWIN CREEKS DR, LUDDENHAM NSW 2745	712	35	34	29	26	39	29	35	37	30	41	33	33	35	34
51216	NCA10	RES	716	54 TWIN CREEKS DR, LUDDENHAM NSW 2745	716	35	33	28	25	43	32	38	40	33	41	32	33	34	33
51244	NCA10	RES	719	55 TWIN CREEKS DR, LUDDENHAM NSW 2745	719	35	34	30	27	39	29	35	37	30	39	30	31	32	31
51271	NCA10	RES	721	58 TWIN CREEKS DR, LUDDENHAM NSW 2745	721	35	38	34	31	44	34	40	42	35	43	35	35	37	36
51286	NCA10	RES	722	62 TWIN CREEKS DR, LUDDENHAM NSW 2745	722	35	36	31	28	41	31	37	39	32	43	35	35	37	36
51343	NCA10	RES	728	64 TWIN CREEKS DR, LUDDENHAM NSW 2745	728	35	37	33	30	43	33	39	41	34	41	33	34	35	34
51378	NCA10	RES	731	7 TWIN CREEKS DR, LUDDENHAM NSW 2745	731	35	37	33	30	41	31	37	38	31	37	29	29	31	30
51391	NCA10	RES	732	9 TWIN CREEKS DR, LUDDENHAM NSW 2745	732	35	39	35	32	44	33	39	41	34	39	31	31	33	32
51422	NCA10	RES	736	1 VENTANA CT, LUDDENHAM NSW 2745	736	35	38	34	31	45	34	40	42	35	43	35	35	37	36
51444	NCA10	RES	737	2 VENTANA CT, LUDDENHAM NSW 2745	737	35	38	34	31	45	35	41	42	35	43	35	36	37	36
51458	NCA10	RES	738	2 VENTANA CT, LUDDENHAM NSW 2745	738	35	41	36	33	47	34	40	42	35	43	35	36	37	36
51477	NCA10	RES	740	3 VENTANA CT, LUDDENHAM NSW 2745	740	35	38	33	30	44	34	40	42	35	45	36	36	38	37
51487	NCA10	RES	741	4 VENTANA CT, LUDDENHAM NSW 2745	741	35	42	37	34	49	38	44	46	39	42	34	34	36	35
51518	NCA10	RES	743	5 VENTANA CT, LUDDENHAM NSW 2745	743	35	39	34	31	46	35	41	43	36	45	37	37	38	38
51534	NCA10	RES	744	6 VENTANA CT, LUDDENHAM NSW 2745	744	35	40	35	32	48	37	43	45	38	44	35	35	37	36
51589	NCA10	RES	748	7 VENTANA CT, LUDDENHAM NSW 2745	748	35	39	34	31	45	35	41	43	36	42	34	35	36	35
51598	NCA10	RES	749	1 WOODHALL PL, LUDDENHAM NSW 2745	749	35	37	33	30	43	32	38	40	33	40	32	33	34	33
51622	NCA10	RES	752	11 WOODHALL PL, LUDDENHAM NSW 2745	752	35	36	31	28	43	33	39	41	34	39	31	32	33	32
51649	NCA10	RES	753	13 WOODHALL PL, LUDDENHAM NSW 2745	753	35	37	32	29	43	33	39	40	33	40	32	32	34	33
51671	NCA10	RES	754	15 WOODHALL PL, LUDDENHAM NSW 2745	754	35	35	31	28	41	30	36	38	31	38	29	30	31	31
51736	NCA10	RES	756	17 WOODHALL PL, LUDDENHAM NSW 2745	756	35	35	31	28	42	32	38	40	33	40	32	32	34	33
51766	NCA10	RES	757	19 WOODHALL PL, LUDDENHAM NSW 2745	757	35	37	33	30	42	32	38	40	33	41	32	32	34	33
51782	NCA10	RES	760	2 WOODHALL PL, LUDDENHAM NSW 2745	760	35	37	32	29	43	33	39	41	34	40	32	32	34	33
51797	NCA10	RES	761	3 WOODHALL PL, LUDDENHAM NSW 2745	761	35	37	33	30	42	32	38	40	33	40	32	33	34	33
51820	NCA10	RES	763	4 WOODHALL PL, LUDDENHAM NSW 2745	763	35	37	32	29	42	31	37	39	32	40	29	30	31	30
51855	NCA10	RES	765	5 WOODHALL PL, LUDDENHAM NSW 2745	765	35	39	35	32	45	34	40	42	35	40	32	33	34	33
51875	NCA10	RES	767	6 WOODHALL PL, LUDDENHAM NSW 2745	767	35	36	32	29	41	31	37	39	32	37	29	30	31	30
51912	NCA10	RES	769	7 WOODHALL PL, LUDDENHAM NSW 2745	769	35	36	32	29	44	34	40	42	35	40	32	32	34	33
51917	NCA10	RES	770	9 WOODHALL PL, LUDDENHAM NSW 2745	770	35	33	29	26	42	31	37	39	32	40	32	32	34	33

Appendix D – Sleep disturbance

Predicted construction noise levels for sleep disturbance					Levels greater than NML are shown in Red																	
No.	NCA	Usage	Rec	Address	Unique ID	NML	Lmax dB(A)															
							Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16			
41142	NCA9	RES	1		5106	52	38	31	28	35	27	32	36	30	39	29	29	29	33	33		
41148	NCA9	RES	15		5120	52	38	31	28	37	29	33	38	32	39	30	30	34	34	34		
41154	NCA9	RES	19		5124	52	38	31	28	37	29	33	38	32	39	30	30	34	34	34		
41165	NCA9	RES	20		5125	52	37	30	27	34	25	30	34	29	41	31	31	35	35	35		
41174	NCA9	RES	23		5128	52	38	31	28	35	26	31	35	30	39	30	30	34	34	34		
41181	NCA9	RES	31		5136	52	38	31	29	36	28	33	37	31	40	30	30	34	35	35		
41187	NCA9	RES	34		5139	52	38	31	28	34	26	31	35	29	39	30	30	34	34	34		
41204	NCA9	RES	39		5144	52	40	33	31	37	28	33	37	32	41	32	32	36	36	36		
41220	NCA9	RES	43		5148	52	37	30	28	34	25	30	35	29	39	29	30	33	34	34		
41223	NCA9	RES	47		5152	52	38	31	29	34	27	32	36	31	40	30	30	34	34	34		
41229	NCA9	RES	57		5162	52	38	31	28	37	28	33	37	32	42	32	32	36	36	36		
41234	NCA9	RES	58		5163	52	38	31	28	35	26	31	35	30	38	29	29	33	33	33		
41244	NCA9	RES	63		5168	52	38	31	28	35	27	31	36	30	41	32	32	36	36	36		
41251	NCA9	RES	65		5170	52	33	26	24	28	20	25	29	23	40	30	31	34	35	35		
41255	NCA9	RES	66		5171	52	39	33	30	34	26	30	35	29	40	30	31	34	35	35		
41259	NCA9	RES	105	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5210	52	35	29	26	30	22	26	31	25	44	35	35	39	39	39		
41265	NCA9	RES	106	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5211	52	36	29	27	30	22	27	31	25	48	39	39	43	43	43		
41276	NCA9	RES	107	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5212	52	36	29	27	30	22	27	31	25	47	37	38	41	42	42		
41280	NCA9	RES	108	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5213	52	38	31	28	31	23	28	32	26	49	39	39	43	44	44		
41295	NCA9	RES	109	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5214	52	36	30	27	30	22	27	31	25	48	39	39	43	43	43		
41300	NCA9	RES	113	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5218	52	36	30	27	30	22	27	31	26	47	37	38	41	42	42		
41306	NCA9	RES	116	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5221	52	37	30	27	33	24	29	34	28	49	39	40	43	44	44		
41311	NCA9	RES	118	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5223	52	36	29	27	30	22	26	31	25	46	36	38	42	42	42		
41315	NCA9	RES	119	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5224	52	39	32	29	33	25	29	34	28	51	42	42	46	46	46		
41321	NCA9	RES	126	117-199 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5231	52	36	29	27	27	18	23	27	22	48	38	39	42	43	43		
41326	NCA9	RES	128	182-200 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5233	52	38	31	28	33	24	29	33	28	44	35	35	39	39	39		
41333	NCA9	RES	129	182-200 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5234	52	38	31	28	32	24	29	33	28	45	35	35	39	40	40		
41339	NCA9	RES	132	202-210 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5237	52	39	32	29	33	25	30	34	29	44	35	35	39	39	39		
41346	NCA9	RES	133	202-210 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5238	52	34	27	24	36	27	32	36	31	46	37	37	41	41	41		
41351	NCA9	RES	134	202-210 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5239	52	41	34	32	34	27	31	36	30	44	34	35	38	39	39		
41364	NCA9	RES	135	212-214 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5240	52	37	31	28	33	25	30	34	29	44	34	35	39	39	39		
41380	NCA9	RES	137	212-214 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5242	52	41	34	31	36	28	33	37	31	46	37	37	41	41	41		
41404	NCA9	RES	139	212-214 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5244	52	38	31	28	34	26	31	35	29	47	37	37	41	41	41		
41412	NCA9	RES	140	212-214 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5245	52	34	28	25	28	20	25	29	24	44	34	34	38	39	39		
41417	NCA9	RES	142	216 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5247	52	38	32	29	34	25	30	34	29	43	34	34	38	38	38		
41426	NCA9	RES	144	216 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5249	52	39	32	29	34	26	30	35	29	44	34	35	38	39	39		
41437	NCA9	RES	146	216 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5251	52	36	29	27	32	24	29	33	28	46	37	37	41	41	41		
41442	NCA9	RES	173	COOLAMON 221-227 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5278	52	40	33	30	33	25	30	34	28	46	36	37	40	41	41		
41445	NCA9	RES	174	COOLAMON 221-227 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5279	52	40	33	30	37	29	33	38	32	44	35	35	39	39	39		
41454	NCA9	RES	203	COOLAMON 221-227 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5308	52	43	36	34	38	29	34	38	33	48	36	37	40	41	41		
41459	NCA9	RES	209	COOLAMON 221-227 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5314	52	40	33	31	35	26	31	36	30	46	37	37	41	41	41		
41466	NCA9	RES	224	222-224 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5329	52	39	32	29	34	26	31	35	29	43	34	34	38	38	38		
41478	NCA9	RES	228	222B LUDDENHAM RD, ORCHARD HILLS NSW 2748	5333	52	39	32	30	35	28	32	37	31	46	37	37	41	41	41		
41486	NCA9	RES	229	226-228 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5334	52	39	32	29	29	25	30	34	29	42	33	33	37	37	37		
41496	NCA9	RES	230	226-228 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5335	52	39	33	30	34	26	31	35	30	44	34	34	38	39	39		
41501	NCA9	RES	232	226-228 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5337	52	38	31	28	34	26	30	35	29	43	34	34	38	38	38		
41506	NCA9	RES	234	229-231 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5339	52	44	37	34	38	30	35	39	34	48	38	39	42	43	43		
41521	NCA9	RES	243	230-234 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5348	52	42	35	33	37	29	34	38	32	46	36	36	40	41	41		
41529	NCA9	RES	244	230-234 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5349	52	39	32	30	34	26	31	35	29	43	33	33	37	38	38		
41536	NCA9	RES	246	233-249 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5351	52	41	34	31	36	28	32	37	31	47	37	38	41	42	42		
41550	NCA9	RES	252	236-238 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5357	52	42	35	33	37	29	34	38	33	45	34	34	38	38	38		
41559	NCA9	RES	255	236-238 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5360	52	39	33	30	34	26	31	35	30	43	33	34	37	38	38		
41564	NCA9	RES	256	240-244 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5361	52	26	19	16	25	17	22	26	20	43	33	33	37	37	37		
41569	NCA9	RES	259	240-244 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5364	52	37	30	27	30	22	27	32	26	44	35	35	39	39	39		
41585	NCA9	RES	261	240-244 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5366	52	42	35	33	38	29	34	38	33	46	36	36	40	41	41		
41591	NCA9	RES	263	246-248 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5368	52	39	32	30	35	27	31	36	30	42	32	33	36	37	37		
41608	NCA9	RES	264	246-248 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5369	52	40	33	31	35	27	32	36	31	43	34	34	38	38	38		
41615	NCA9	RES	267	246-248 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5372	52	34	27	24	31	23	28	32	26	43	33	34	38	38	38		
41621	NCA9	RES	268	250-254 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5373	52	38	32	29	35	27	31	36	30	41	32	32	36	36	36		
41624	NCA9	RES	269	250-254 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5374	52	39	32	30	35	27	32	36	30	42	32	33	36	37	37		
41633	NCA9	RES	270	250-254 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5375	52	42	35	32	35	27	32	36	30	44	35	35	39	39	39		
41647	NCA9	RES	272	250-254 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5377	52	40	33	31	36	27	32	36	31	43	33	34	37	38	38		
41658	NCA9	RES	274	250-254 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5379	52	39	33	30	38	29	34	38	33	42	33	33	37	37	37		
41662	NCA9	RES	276	251-261 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5381	52	43	37	34	39	31	36	40	34	45	35	36	39	40	40		
41667	NCA9	RES	280	251-261 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5385	52	41	35	32	37	28	33	37	32	44	35	35	39	39	39		
41678	NCA9	RES	281	256 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5386	52	40	33	31	36	28	32	37	31	45	36	36	40	40	40		
41695	NCA9	RES	282	256 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5387	52	39	33	30	36	27	32	36	31	44	35	35	39	39	39		
41702	NCA9	RES	283	262-266 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5388	52	40	33	31	36	28	33	37	31	42	32	33	36	37	37		
41707	NCA9	RES	284	262-266 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5389	52	40	33	30	36	27	32	37	31	42	32	33	36	37	37		

Predicted construction noise levels for sleep disturbance				Levels greater than NML are shown in Red																		
No.	NCA	Usage	Rec	Address	Unique ID	NML	Lmax dB(A)															
							Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16			
41712	NCA9	RES	285	262-266 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5390	52	40	34	31	36	28	33	37	31	42	33	37	37				
41718	NCA9	RES	289	262-266 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5394	52	40	34	31	36	28	33	37	31	43	33	33	37	37			
41727	NCA9	RES	290	263-273 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5395	52	41	34	31	37	29	34	38	32	46	37	37	41	41			
41730	NCA9	RES	292	268-288 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5397	52	41	34	31	37	29	34	38	32	42	33	33	37	37			
41735	NCA9	RES	293	275-285 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5398	52	42	36	33	38	30	34	39	33	45	36	36	40	40			
41740	NCA9	RES	297	275-285 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5402	52	41	34	31	36	28	33	38	32	45	35	36	39	40			
41753	NCA9	RES	298	275-285 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5403	52	44	37	34	37	29	34	38	33	45	34	35	39	39			
41761	NCA9	RES	299	275A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5404	52	43	36	33	38	30	35	39	33	45	35	36	39	40			
41777	NCA9	RES	302	275A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5407	52	43	36	33	40	32	37	41	35	47	36	37	40	41			
41794	NCA9	RES	303	287 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5408	52	42	36	33	39	30	35	39	34	47	37	37	41	41			
41798	NCA9	RES	305	287 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5410	52	43	36	33	41	32	37	41	36	44	35	35	39	39			
41818	NCA9	RES	307	289-317 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5412	52	44	37	35	39	31	36	40	34	46	36	37	40	41			
41830	NCA9	RES	308	289-317 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5413	52	46	39	36	39	31	36	40	34	47	36	36	40	40			
41841	NCA9	RES	309	31-39 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5414	52	29	23	20	24	16	21	25	20	36	27	27	31	31			
41846	NCA9	RES	312	319-325 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5417	52	48	41	39	42	33	38	42	37	49	38	39	42	43			
41851	NCA9	RES	313	319-325 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5418	52	44	38	35	41	33	37	42	36	47	36	37	40	41			
41861	NCA9	RES	314	319-325 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5419	52	48	41	39	44	36	40	45	39	49	37	38	41	42			
41867	NCA9	RES	315	319-325 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5420	52	46	39	36	43	35	40	44	39	49	37	38	41	42			
41875	NCA9	RES	317	319-325 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5422	52	44	37	35	41	32	37	42	36	46	36	36	40	40			
41887	NCA9	RES	319	320-326 LUDDENHAM RD, ORCHARD HILLS NSW 2748	5424	52	43	36	34	41	32	37	41	36	43	33	33	37	37			
41903	NCA9	RES	322	43A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5427	52	33	26	24	29	21	26	30	24	41	32	32	36	36			
41910	NCA9	RES	323	43A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5428	52	34	27	24	28	20	24	29	23	44	35	35	39	39			
41913	NCA9	RES	325	43A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5430	52	34	27	25	28	20	25	29	23	46	36	36	40	41			
41923	NCA9	RES	328	43A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5433	52	37	30	27	31	23	27	32	26	48	38	39	42	43			
41932	NCA9	RES	331	43A LUDDENHAM RD, ORCHARD HILLS NSW 2748	5436	52	34	27	25	28	20	25	29	23	46	36	36	40	41			
41940	NCA9	RES	343	573-577 MAMRE RD, ORCHARD HILLS NSW 2748	5448	52	35	28	25	32	24	28	33	27	36	27	31	31	31			
41951	NCA9	RES	344	573-577 MAMRE RD, ORCHARD HILLS NSW 2748	5449	52	32	26	23	30	21	26	30	25	34	25	25	29	29			
41960	NCA9	RES	346	1-19 MANDALONG CL, ORCHARD HILLS NSW 2748	5451	52	32	25	23	28	20	25	29	23	37	27	28	31	32			
41980	NCA9	RES	348	21A MANDALONG CL, ORCHARD HILLS NSW 2748	5453	52	34	28	25	31	23	28	32	27	37	27	27	31	32			
42000	NCA9	RES	349	21A MANDALONG CL, ORCHARD HILLS NSW 2748	5454	52	32	25	23	29	21	26	30	24	34	25	25	29	29			
42005	NCA9	RES	351	25-31 MANDALONG CL, ORCHARD HILLS NSW 2748	5456	52	32	25	23	29	21	25	30	24	35	26	26	30	30			
42013	NCA9	RES	353	25-31 MANDALONG CL, ORCHARD HILLS NSW 2748	5458	52	32	25	23	29	21	25	30	24	35	26	26	30	30			
42037	NCA9	RES	354	25-31 MANDALONG CL, ORCHARD HILLS NSW 2748	5459	52	35	28	25	31	23	28	32	26	38	28	28	32	33			
42047	NCA9	RES	355	33-41 MANDALONG CL, ORCHARD HILLS NSW 2748	5460	52	32	26	23	29	21	25	30	24	36	26	26	30	31			
42061	NCA9	RES	356	33-41 MANDALONG CL, ORCHARD HILLS NSW 2748	5461	52	35	28	26	31	23	28	32	27	37	28	28	32	32			
42079	NCA9	RES	357	33-41 MANDALONG CL, ORCHARD HILLS NSW 2748	5462	52	33	26	23	29	21	26	30	24	36	27	27	31	31			
42089	NCA9	RES	360	43-51 MANDALONG CL, ORCHARD HILLS NSW 2748	5465	52	33	26	24	30	21	26	30	25	37	27	27	31	32			
42092	NCA9	RES	361	43-51 MANDALONG CL, ORCHARD HILLS NSW 2748	5466	52	26	19	16	22	14	19	23	17	37	27	28	31	32			
42096	NCA9	RES	362	43-51 MANDALONG CL, ORCHARD HILLS NSW 2748	5467	52	33	26	24	29	21	26	30	25	36	27	27	31	31			
42108	NCA9	RES	363	43-51 MANDALONG CL, ORCHARD HILLS NSW 2748	5468	52	36	29	26	32	24	28	33	27	38	28	28	32	32			
42137	NCA9	RES	364	53-63 MANDALONG CL, ORCHARD HILLS NSW 2748	5469	52	34	27	24	30	22	26	31	25	37	28	28	32	32			
42140	NCA9	RES	366	53-63 MANDALONG CL, ORCHARD HILLS NSW 2748	5471	52	30	23	21	29	21	26	30	25	35	26	26	30	30			
42161	NCA9	RES	367	53-63 MANDALONG CL, ORCHARD HILLS NSW 2748	5472	52	36	29	27	32	24	29	33	28	39	30	30	34	34			
42181	NCA9	RES	368	53-63 MANDALONG CL, ORCHARD HILLS NSW 2748	5473	52	36	29	27	32	24	29	33	27	39	30	30	34	34			
42193	NCA9	RES	370	65-73 MANDALONG CL, ORCHARD HILLS NSW 2748	5475	52	34	27	25	31	22	27	31	26	37	28	28	32	32			
42205	NCA9	RES	373	65-73 MANDALONG CL, ORCHARD HILLS NSW 2748	5478	52	34	28	25	33	25	29	34	28	40	31	31	35	35			
42220	NCA9	RES	374	65-73 MANDALONG CL, ORCHARD HILLS NSW 2748	5479	52	35	28	25	31	23	28	32	26	38	29	29	33	33			
42236	NCA9	RES	375	65-73 MANDALONG CL, ORCHARD HILLS NSW 2748	5480	52	35	28	25	33	25	30	34	29	38	29	29	33	33			
42250	NCA9	RES	376	75-77 MANDALONG CL, ORCHARD HILLS NSW 2748	5481	52	37	30	28	34	25	30	34	29	41	31	32	35	36			
42265	NCA9	RES	377	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5482	52	35	28	26	31	22	27	31	26	40	30	31	34	35			
42281	NCA9	RES	380	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5485	52	38	31	28	33	25	30	34	29	42	32	33	36	37			
42287	NCA9	RES	381	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5486	52	38	31	28	33	25	30	34	29	39	30	30	34	34			
42296	NCA9	RES	382	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5487	52	35	29	26	31	23	28	32	26	40	30	30	34	35			
42300	NCA9	RES	384	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5489	52	35	28	26	31	22	27	32	26	39	29	30	33	34			
42318	NCA9	RES	385	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5490	52	35	28	25	30	22	27	31	26	39	29	30	33	34			
42326	NCA9	RES	386	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5491	52	35	28	26	31	22	27	31	26	40	30	31	34	35			
42331	NCA9	RES	387	79-81 MANDALONG CL, ORCHARD HILLS NSW 2748	5492	52	35	28	26	31	23	27	32	26	39	30	30	34	34			
42347	NCA9	RES	392	83-91 MANDALONG CL, ORCHARD HILLS NSW 2748	5497	52	34	27	25	30	22	27	31	25	40	30	30	34	35			
42367	NCA9	RES	393	83-91 MANDALONG CL, ORCHARD HILLS NSW 2748	5498	52	36	30	27	32	24	29	33	27	38	29	29	33	33			
42386	NCA9	RES	396	83-91 MANDALONG CL, ORCHARD HILLS NSW 2748	5501	52	34	27	24	30	22	26	31	25	38	29	29	33	33			
42390	NCA9	RES	398	83-91 MANDALONG CL, ORCHARD HILLS NSW 2748	5503	52	34	27	24	30	22	26	31	25	38	29	29	33	33			
42396	NCA9	RES	755	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6271	52	35	29	26	29	9	14	18	13	41	31	32	35	36			
42412	NCA9	RES	756	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6272	52	36	29	27	30	22	27	32	26	34	25	25	29	29			
42415	NCA9	RES	761	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6277	52	36	29	26	29	22	27	31	26	34	24	25	28	29			
42428	NCA9	RES	762	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6278	52	35	28	26	29	22	26	31	25	33	24	24	28	28			
42429	NCA9	RES	763	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6279	52	36	29	27	30	23	27	32	26	35	26	26	30	30			
42443	NCA9	RES	766	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6282	52	35	29	26	29	22	26	31	25	34	24	25	28	29			
42447	NCA9	RES	767	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6283	52	36	29	26	29	22	27	31	25	34	25	25	29	29			
42460	NCA9	RES	769	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6285	52	36	29	26	29	23	28	32	27	34	25	25	29	29			

Predicted construction noise levels for sleep disturbance					Levels greater than NML are shown in Red																
No.	NCA	Usage	Rec	Address	Unique ID	NML	Lmax dB(A)														
							Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16		
42476	NCA9	RES	772	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6288	52	37	30	27	30	30	25	29	34	28	36	26	27	30	31	
42496	NCA9	RES	774	2042-2550 THE NORTHERN ROAD, ORCHARD HILLS NSW 2748	6290	52	34	27	24	28	21	25	30	24	32	23	23	27	27		
44913	NCA10	RES	5		5	52	40	34	31	43	35	40	44	38	39	29	30	33	34		
44920	NCA10	RES	16	1669A ELIZABETH DR, BADGERYS CREEK NSW 2555	16	52	26	20	17	29	21	26	30	24	39	24	23	28	28		
44935	NCA10	RES	26	1669A ELIZABETH DR, BADGERYS CREEK NSW 2555	26	52	29	22	19	31	23	28	32	27	40	24	24	28	28		
44940	NCA10	RES	52	1783-1789 ELIZABETH DR, BADGERYS CREEK NSW 2555	52	52	24	17	14	26	18	23	27	22	38	22	22	26	26		
44950	NCA10	RES	81	1953-2109 ELIZABETH DR, BADGERYS CREEK NSW 2555	81	52	27	20	18	28	21	25	30	24	37	26	26	30	30		
44958	NCA10	RES	82	1953-2109 ELIZABETH DR, BADGERYS CREEK NSW 2555	82	52	26	20	17	29	21	26	30	25	36	26	26	30	31		
44966	NCA10	RES	88	1953-2109 ELIZABETH DR, BADGERYS CREEK NSW 2555	88	52	30	23	21	32	24	29	34	28	43	30	30	34	34		
44980	NCA10	RES	97	707A MAMRE RD, KEMPS CREEK NSW 2178	97	52	37	31	28	37	29	34	38	32	37	27	28	31	32		
44996	NCA10	RES	99	707A MAMRE RD, KEMPS CREEK NSW 2178	99	52	38	31	28	37	29	34	38	32	37	27	27	31	31		
45026	NCA10	RES	104	3 BRIDPORT PL, LUDDENHAM NSW 2745	104	52	35	28	26	39	32	36	41	35	50	37	37	41	42		
45028	NCA10	RES	105	4 BRIDPORT PL, LUDDENHAM NSW 2745	105	52	39	32	29	43	35	40	44	39	50	38	38	42	42		
45035	NCA10	RES	106	4 BRIDPORT PL, LUDDENHAM NSW 2745	106	52	36	30	27	43	35	40	44	39	48	38	38	42	42		
45070	NCA10	RES	107	10 COMARGO LANE, LUDDENHAM NSW 2745	107	52	47	40	37	45	36	41	45	40	46	36	36	40	40		
45085	NCA10	RES	108	2 COMARGO LANE, LUDDENHAM NSW 2745	108	52	43	36	33	43	34	39	43	38	42	32	32	36	37		
45101	NCA10	RES	109	2 COMARGO LANE, LUDDENHAM NSW 2745	109	52	46	39	37	46	38	42	47	41	45	35	36	39	40		
45125	NCA10	RES	111	4 COMARGO LANE, LUDDENHAM NSW 2745	111	52	46	39	37	44	35	40	44	39	45	35	36	39	40		
45138	NCA10	RES	112	6 COMARGO LANE, LUDDENHAM NSW 2745	112	52	44	37	35	47	38	43	47	41	43	33	34	37	38		
45151	NCA10	RES	113	8 COMARGO LANE, LUDDENHAM NSW 2745	113	52	44	37	35	44	35	40	44	39	44	33	34	37	38		
45165	NCA10	RES	114	2 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	114	52	41	34	31	45	36	41	45	40	39	30	30	34	34		
45179	NCA10	RES	115	3 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	115	52	41	34	31	44	36	41	45	39	41	32	32	36	36		
45206	NCA10	RES	116	4 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	116	52	41	34	31	46	36	40	45	39	43	33	34	37	38		
45215	NCA10	RES	118	5 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	118	52	41	34	31	46	38	43	47	41	41	31	32	35	36		
45238	NCA10	RES	119	6 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	119	52	43	36	34	47	38	43	47	41	41	32	32	36	36		
45264	NCA10	RES	120	7 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	120	52	43	36	34	46	38	43	47	41	42	32	32	36	37		
45275	NCA10	RES	121	8 CRYSTAL DOWNS CL, LUDDENHAM NSW 2745	121	52	41	34	31	46	37	42	46	41	41	31	31	35	35		
45288	NCA10	RES	122	10 DORAL GR, LUDDENHAM NSW 2745	122	52	43	36	34	48	39	44	48	43	43	33	33	37	37		
45306	NCA10	RES	125	11 DORAL GR, LUDDENHAM NSW 2745	125	52	42	35	32	45	36	41	45	40	41	31	31	35	35		
45312	NCA10	RES	126	3 DORAL GR, LUDDENHAM NSW 2745	126	52	43	36	34	48	39	44	48	43	42	33	33	37	37		
45335	NCA10	RES	127	4 DORAL GR, LUDDENHAM NSW 2745	127	52	41	34	31	48	39	44	48	43	42	33	33	37	37		
45354	NCA10	RES	128	5 DORAL GR, LUDDENHAM NSW 2745	128	52	43	37	34	48	39	44	49	43	43	34	34	38	38		
45365	NCA10	RES	129	6 DORAL GR, LUDDENHAM NSW 2745	129	52	41	35	32	46	37	42	47	41	41	32	32	36	36		
45385	NCA10	RES	131	7 DORAL GR, LUDDENHAM NSW 2745	131	52	41	35	32	46	37	42	47	41	42	32	32	36	36		
45405	NCA10	RES	132	8 DORAL GR, LUDDENHAM NSW 2745	132	52	41	34	32	46	37	42	46	40	41	31	32	35	36		
45419	NCA10	RES	133	9 DORAL GR, LUDDENHAM NSW 2745	133	52	42	35	33	46	39	43	48	42	43	33	34	37	38		
45443	NCA10	RES	137	2111-2141 ELIZABETH DR, LUDDENHAM NSW 2745	137	52	27	20	18	28	20	25	29	24	25	24	28	28	29		
45460	NCA10	RES	146	10 FARMINGDALE CT, LUDDENHAM NSW 2745	146	52	35	28	26	39	31	36	40	35	48	34	34	38	38		
45480	NCA10	RES	148	11 FARMINGDALE CT, LUDDENHAM NSW 2745	148	52	33	27	24	37	29	34	38	33	47	34	35	38	39		
45506	NCA10	RES	149	12 FARMINGDALE CT, LUDDENHAM NSW 2745	149	52	38	31	28	42	34	39	43	37	51	38	38	42	42		
45538	NCA10	RES	150	14 FARMINGDALE CT, LUDDENHAM NSW 2745	150	52	39	32	30	43	35	40	44	39	52	40	38	44	44		
45563	NCA10	RES	151	14 FARMINGDALE CT, LUDDENHAM NSW 2745	151	52	35	28	26	39	31	36	40	35	52	38	38	42	42		
45591	NCA10	RES	152	16 FARMINGDALE CT, LUDDENHAM NSW 2745	152	52	34	27	25	40	32	37	42	36	52	36	36	40	41		
45599	NCA10	RES	153	17 FARMINGDALE CT, LUDDENHAM NSW 2745	153	52	37	30	27	40	32	37	42	36	48	34	35	39	39		
45618	NCA10	RES	154	17 FARMINGDALE CT, LUDDENHAM NSW 2745	154	52	29	22	20	37	29	34	38	32	47	33	33	37	38		
45622	NCA10	RES	155	18 FARMINGDALE CT, LUDDENHAM NSW 2745	155	52	35	28	25	38	30	35	40	34	49	34	34	38	39		
45635	NCA10	RES	156	18 FARMINGDALE CT, LUDDENHAM NSW 2745	156	52	37	31	28	41	33	38	42	37	50	37	37	41	42		
45645	NCA10	RES	157	2 FARMINGDALE CT, LUDDENHAM NSW 2745	157	52	38	31	29	41	34	38	43	37	49	36	36	40	41		
45667	NCA10	RES	159	22 FARMINGDALE CT, LUDDENHAM NSW 2745	159	52	37	30	28	40	33	37	42	36	50	36	36	40	41		
45710	NCA10	RES	160	5 FARMINGDALE CT, LUDDENHAM NSW 2745	160	52	37	30	28	40	32	37	42	36	49	36	36	40	40		
45732	NCA10	RES	161	6 FARMINGDALE CT, LUDDENHAM NSW 2745	161	52	37	31	28	41	33	38	42	37	50	35	36	39	40		
45747	NCA10	RES	162	6 FARMINGDALE CT, LUDDENHAM NSW 2745	162	52	30	23	20	39	31	36	40	35	47	35	32	40	40		
45769	NCA10	RES	163	7 FARMINGDALE CT, LUDDENHAM NSW 2745	163	52	37	30	28	40	32	36	42	36	46	35	35	39	39		
45789	NCA10	RES	165	7 FARMINGDALE CT, LUDDENHAM NSW 2745	165	52	34	28	25	38	30	35	39	33	45	32	32	36	37		
45794	NCA10	RES	166	8 FARMINGDALE CT, LUDDENHAM NSW 2745	166	52	37	30	27	41	33	38	42	37	50	34	34	38	39		
45822	NCA10	RES	167	9 FARMINGDALE CT, LUDDENHAM NSW 2745	167	52	34	27	25	38	30	35	39	33	45	32	32	36	37		
45845	NCA10	RES	169	10 GANTON WAY, LUDDENHAM NSW 2745	169	52	36	29	26	41	31	36	41	35	45	34	34	38	38		
45880	NCA10	RES	170	12 GANTON WAY, LUDDENHAM NSW 2745	170	52	38	31	29	42	34	39	43	37	45	34	34	38	38		
45898	NCA10	RES	171	16 GANTON WAY, LUDDENHAM NSW 2745	171	52	38	31	28	41	33	38	42	37	45	34	34	38	38		
45938	NCA10	RES	172	18 GANTON WAY, LUDDENHAM NSW 2745	172	52	38	31	28	41	33	38	42	37	46	34	34	38	39		
45970	NCA10	RES	174	2 GANTON WAY, LUDDENHAM NSW 2745	174	52	38	32	29	42	34	39	43	38	42	30	31	34	35		
45989	NCA10	RES	176	4 GANTON WAY, LUDDENHAM NSW 2745	176	52	38	31	29	42	34	39	43	37	43	32	32	36	36		
46002	NCA10	RES	177	6 GANTON WAY, LUDDENHAM NSW 2745	177	52	38	32	29	42	34	39	43	38	45	34	34	38	38		
46030	NCA10	RES	178	6 GANTON WAY, LUDDENHAM NSW 2745	178	52	36	29	27	42	34	39	43	38	43	33	34	37	38		
46039	NCA10	RES	179	8 GANTON WAY, LUDDENHAM NSW 2745	179	52	36	29	26	39	32	36	41	35	45	34	34	38	38		
46052	NCA10	RES	180	10 HALMSTAD BVD, LUDDENHAM NSW 2745	180	52	37	30	28	42	34	39	44	38	44	34	34	38	38		
46065	NCA10	RES	181	10 HALMSTAD BVD, LUDDENHAM NSW 2745	181	52	40	33	31	45	37	42	46	40	44	34	34	38	38		
46076	NCA10	RES	182	10 HALMSTAD BVD, LUDDENHAM NSW 2745	182	52	38	31	29	43	35	40	44	38	42	33	33	37	37		
46082	NCA10	RES	184	11 HALMSTAD BVD, LUDDENHAM NSW 2745	184	52	41	34	32	46	38	43	47	42	47	37	37	41	41		

Predicted construction noise levels for sleep disturbance				Levels greater than NML are shown in Red																		
No.	NCA	Usage	Rec	Address	Unique ID	NML	Lmax dB(A)															
							Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16			
46105	NCA10	RES	185	11 HALMSTAD BVD, LUDDENHAM NSW 2745	185	52	39	32	29	44	36	41	45	40	45	35	35	39	39			
46111	NCA10	RES	186	12 HALMSTAD BVD, LUDDENHAM NSW 2745	186	52	38	31	29	44	36	41	45	40	43	34	34	38	38			
46125	NCA10	RES	187	12 HALMSTAD BVD, LUDDENHAM NSW 2745	187	52	40	33	31	45	37	42	46	40	46	36	37	40	41			
46136	NCA10	RES	188	13 HALMSTAD BVD, LUDDENHAM NSW 2745	188	52	41	34	31	46	38	43	47	41	45	36	36	40	40			
46141	NCA10	RES	189	13 HALMSTAD BVD, LUDDENHAM NSW 2745	189	52	41	34	32	46	38	43	47	41	45	36	36	40	40			
46158	NCA10	RES	190	14 HALMSTAD BVD, LUDDENHAM NSW 2745	190	52	38	31	28	42	34	39	43	38	45	34	34	38	39			
46178	NCA10	RES	191	14 HALMSTAD BVD, LUDDENHAM NSW 2745	191	52	36	29	27	41	34	38	43	37	45	34	34	38	38			
46201	NCA10	RES	192	15 HALMSTAD BVD, LUDDENHAM NSW 2745	192	52	38	32	29	44	36	41	46	40	48	37	37	41	42			
46204	NCA10	RES	193	15 HALMSTAD BVD, LUDDENHAM NSW 2745	193	52	38	31	29	43	35	40	44	39	45	35	35	39	39			
46214	NCA10	RES	194	17 HALMSTAD BVD, LUDDENHAM NSW 2745	194	52	38	31	29	45	37	42	46	41	48	37	38	41	42			
46236	NCA10	RES	195	19 HALMSTAD BVD, LUDDENHAM NSW 2745	195	52	38	31	28	42	35	39	44	38	48	37	38	41	42			
46252	NCA10	RES	196	19 HALMSTAD BVD, LUDDENHAM NSW 2745	196	52	38	31	28	42	35	39	44	38	46	35	35	39	40			
46255	NCA10	RES	197	20 HALMSTAD BVD, LUDDENHAM NSW 2745	197	52	37	30	27	41	33	38	42	36	46	37	37	41	41			
46260	NCA10	RES	198	20 HALMSTAD BVD, LUDDENHAM NSW 2745	198	52	37	30	27	41	33	38	42	36	43	34	34	38	38			
46272	NCA10	RES	199	20 HALMSTAD BVD, LUDDENHAM NSW 2745	199	52	39	32	30	43	35	40	45	39	47	37	37	41	41			
46296	NCA10	RES	200	22 HALMSTAD BVD, LUDDENHAM NSW 2745	200	52	36	29	27	43	33	37	42	36	49	34	35	38	39			
46323	NCA10	RES	201	23 HALMSTAD BVD, LUDDENHAM NSW 2745	201	52	40	33	30	44	38	42	47	41	49	38	38	42	42			
46329	NCA10	RES	203	24 HALMSTAD BVD, LUDDENHAM NSW 2745	203	52	36	29	27	40	32	37	41	36	44	32	33	36	37			
46354	NCA10	RES	204	24 HALMSTAD BVD, LUDDENHAM NSW 2745	204	52	37	31	28	43	35	40	45	39	49	37	37	41	41			
46355	NCA10	RES	205	25 HALMSTAD BVD, LUDDENHAM NSW 2745	205	52	37	30	28	41	34	38	43	37	47	36	36	40	40			
46375	NCA10	RES	206	25 HALMSTAD BVD, LUDDENHAM NSW 2745	206	52	38	31	29	44	36	41	45	39	49	37	38	41	42			
46393	NCA10	RES	207	26 HALMSTAD BVD, LUDDENHAM NSW 2745	207	52	36	29	26	40	32	37	41	35	45	33	33	37	38			
46401	NCA10	RES	208	26 HALMSTAD BVD, LUDDENHAM NSW 2745	208	52	35	28	25	42	34	39	43	38	46	36	36	40	40			
46420	NCA10	RES	209	27 HALMSTAD BVD, LUDDENHAM NSW 2745	209	52	37	30	27	43	35	40	44	39	47	37	37	41	41			
46429	NCA10	RES	211	28 HALMSTAD BVD, LUDDENHAM NSW 2745	211	52	37	30	27	41	33	38	42	37	48	36	36	40	40			
46447	NCA10	RES	212	28 HALMSTAD BVD, LUDDENHAM NSW 2745	212	52	36	29	26	39	31	36	41	35	45	32	32	36	36			
46454	NCA10	RES	213	3 HALMSTAD BVD, LUDDENHAM NSW 2745	213	52	42	35	32	47	39	44	48	43	46	37	37	41	41			
46475	NCA10	RES	214	39 HALMSTAD BVD, LUDDENHAM NSW 2745	214	52	37	31	28	41	33	38	42	36	48	34	35	38	39			
46487	NCA10	RES	215	4 HALMSTAD BVD, LUDDENHAM NSW 2745	215	52	41	34	32	47	39	44	48	42	46	36	36	40	40			
46521	NCA10	RES	216	4 HALMSTAD BVD, LUDDENHAM NSW 2745	216	52	41	34	32	46	37	42	47	41	42	32	33	36	37			
46529	NCA10	RES	218	5 HALMSTAD BVD, LUDDENHAM NSW 2745	218	52	39	33	30	47	39	44	48	43	46	36	37	40	41			
46553	NCA10	RES	219	7 HALMSTAD BVD, LUDDENHAM NSW 2745	219	52	42	35	32	47	39	44	48	42	45	35	36	39	40			
46572	NCA10	RES	220	8 HALMSTAD BVD, LUDDENHAM NSW 2745	220	52	41	34	31	46	38	43	47	41	45	36	36	40	40			
46579	NCA10	RES	221	8 HALMSTAD BVD, LUDDENHAM NSW 2745	221	52	41	34	31	45	37	42	46	41	45	35	36	39	40			
46586	NCA10	RES	222	8 HALMSTAD BVD, LUDDENHAM NSW 2745	222	52	38	31	29	43	35	40	44	39	45	35	36	39	40			
46614	NCA10	RES	223	1 HUMEWOOD PL, LUDDENHAM NSW 2745	223	52	39	33	30	43	35	40	44	39	45	34	34	38	38			
46616	NCA10	RES	224	10 HUMEWOOD PL, LUDDENHAM NSW 2745	224	52	36	29	27	42	34	39	43	37	44	33	34	37	38			
46626	NCA10	RES	225	10 HUMEWOOD PL, LUDDENHAM NSW 2745	225	52	39	32	30	44	36	41	45	40	44	35	35	39	39			
46651	NCA10	RES	228	11 HUMEWOOD PL, LUDDENHAM NSW 2745	228	52	39	32	29	43	35	40	44	38	46	35	35	39	39			
46666	NCA10	RES	229	11 HUMEWOOD PL, LUDDENHAM NSW 2745	229	52	36	29	27	40	32	37	41	36	43	32	32	36	36			
46670	NCA10	RES	230	12 HUMEWOOD PL, LUDDENHAM NSW 2745	230	52	39	32	30	44	36	41	45	39	47	36	36	40	40			
46692	NCA10	RES	231	14 HUMEWOOD PL, LUDDENHAM NSW 2745	231	52	39	33	30	43	36	41	45	39	47	33	34	37	38			
46716	NCA10	RES	232	15 HUMEWOOD PL, LUDDENHAM NSW 2745	232	52	36	29	27	41	33	38	42	36	46	35	35	39	39			
46736	NCA10	RES	233	2 HUMEWOOD PL, LUDDENHAM NSW 2745	233	52	35	28	26	41	33	38	43	37	43	34	34	38	38			
46743	NCA10	RES	234	2 HUMEWOOD PL, LUDDENHAM NSW 2745	234	52	36	29	27	43	35	40	44	39	42	32	32	36	36			
46751	NCA10	RES	235	2 HUMEWOOD PL, LUDDENHAM NSW 2745	235	52	37	31	28	42	34	39	43	37	44	32	33	36	37			
46778	NCA10	RES	236	2 HUMEWOOD PL, LUDDENHAM NSW 2745	236	52	35	28	25	41	33	38	42	36	42	32	32	36	36			
46784	NCA10	RES	237	22 HUMEWOOD PL, LUDDENHAM NSW 2745	237	52	36	29	27	40	32	37	41	35	47	33	33	37	37			
46801	NCA10	RES	239	22 HUMEWOOD PL, LUDDENHAM NSW 2745	239	52	36	29	27	42	35	40	44	38	47	34	34	38	39			
46829	NCA10	RES	240	24 HUMEWOOD PL, LUDDENHAM NSW 2745	240	52	38	31	29	42	34	39	43	37	46	33	33	37	37			
46832	NCA10	RES	241	24 HUMEWOOD PL, LUDDENHAM NSW 2745	241	52	36	29	26	39	31	36	40	35	47	32	33	37	37			
46835	NCA10	RES	242	3 HUMEWOOD PL, LUDDENHAM NSW 2745	242	52	37	30	27	41	33	37	42	36	40	30	31	35	35			
46852	NCA10	RES	243	3 HUMEWOOD PL, LUDDENHAM NSW 2745	243	52	39	32	30	43	33	38	42	36	42	32	32	36	36			
46879	NCA10	RES	244	4 HUMEWOOD PL, LUDDENHAM NSW 2745	244	52	37	31	28	42	34	39	43	37	45	32	33	36	37			
46883	NCA10	RES	246	5 HUMEWOOD PL, LUDDENHAM NSW 2745	246	52	31	24	22	41	33	38	42	36	44	34	34	38	38			
46892	NCA10	RES	247	5 HUMEWOOD PL, LUDDENHAM NSW 2745	247	52	37	30	27	41	33	38	42	36	46	34	35	39	39			
46905	NCA10	RES	249	5 HUMEWOOD PL, LUDDENHAM NSW 2745	249	52	36	29	26	40	33	37	42	36	45	34	34	38	38			
46926	NCA10	RES	250	6 HUMEWOOD PL, LUDDENHAM NSW 2745	250	52	40	33	30	44	36	41	45	40	46	33	33	37	37			
46940	NCA10	RES	252	7 HUMEWOOD PL, LUDDENHAM NSW 2745	252	52	36	30	27	41	33	37	42	36	43	32	32	36	36			
46951	NCA10	RES	253	7 HUMEWOOD PL, LUDDENHAM NSW 2745	253	52	37	30	27	41	33	38	42	37	45	35	35	39	39			
46979	NCA10	RES	254	9 HUMEWOOD PL, LUDDENHAM NSW 2745	254	52	39	32	30	43	35	40	44	39	46	33	33	37	37			
46986	NCA10	RES	256	9 HUMEWOOD PL, LUDDENHAM NSW 2745	256	52	39	32	29	43	35	40	44	39	43	32	32	36	37			
46994	NCA10	RES	258	336-348 LUDDENHAM RD, LUDDENHAM NSW 2745	258	52	44	37	34	42	34	39	43	37	43	33	33	37	37			
47000	NCA10	RES	265	339-363 LUDDENHAM RD, LUDDENHAM NSW 2745	265	52	45	38	35	43	39	44	38	44	34	35	38	39	39			
47005	NCA10	RES	275	405-423 LUDDENHAM RD, LUDDENHAM NSW 2745	275	52	51	44	41	49	40	45	49	43	50	40	40	44	44			
47015	NCA10	RES	279	425-441 LUDDENHAM RD, LUDDENHAM NSW 2745	279	52	48	41	38	54	44	49	53	47	48	37	38	42	42			
47023	NCA10	RES	288	425A LUDDENHAM RD, LUDDENHAM NSW 2745	288	52	51	44	41	42	57	48	53	57	51	50	40	41	44	45		
47046	NCA10	RES	292	443-457 LUDDENHAM RD, LUDDENHAM NSW 2745	292	52	56	49	47	60	51	55	60	54	55	45	45	49	50	50		
47060	NCA10	RES	297	581 LUDDENHAM RD, LUDDENHAM NSW 2745	297	52	53	46	43	62	63	67	72	66	55	45	46	50	50			

Predicted construction noise levels for sleep disturbance			Levels greater than NML are shown in Red																	
No.	NCA	Usage	Rec	Address	Unique ID	NML	Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16	
																Lmax dB(A)				
47067	NCA10	RES	302	611-639 LUDDENHAM RD, LUDDENHAM NSW 2745	302	52	42	35	33	46	38	43	47	42	57	48	48	52	52	
47073	NCA10	RES	304	611A LUDDENHAM RD, LUDDENHAM NSW 2745	304	52	41	34	32	44	36	41	46	40	54	45	45	49	49	
47077	NCA10	RES	308	641-675 LUDDENHAM RD, LUDDENHAM NSW 2745	308	52	38	31	28	39	32	37	41	35	46	37	37	41	41	
47101	NCA10	RES	311	644-652 LUDDENHAM RD, LUDDENHAM NSW 2745	311	52	40	33	31	44	37	41	46	40	59	50	50	54	54	
47107	NCA10	RES	314	654-658 LUDDENHAM RD, LUDDENHAM NSW 2745	314	52	39	33	30	44	36	41	45	40	57	47	48	51	52	
47112	NCA10	RES	319	660-670 LUDDENHAM RD, LUDDENHAM NSW 2745	319	52	38	31	29	41	33	38	43	37	51	41	42	45	46	
47118	NCA10	RES	321	672-686 LUDDENHAM RD, LUDDENHAM NSW 2745	321	52	37	30	28	40	32	37	41	36	50	40	40	44	45	
47137	NCA10	RES	324	672-686 LUDDENHAM RD, LUDDENHAM NSW 2745	324	52	38	31	28	42	35	40	44	38	51	42	42	46	46	
47167	NCA10	RES	329	677-691 LUDDENHAM RD, LUDDENHAM NSW 2745	329	52	38	31	28	40	32	37	41	36	50	41	41	45	45	
47183	NCA10	RES	334	688-708 LUDDENHAM RD, LUDDENHAM NSW 2745	334	52	39	32	30	42	34	39	43	38	50	41	41	45	45	
47196	NCA10	RES	335	688-708 LUDDENHAM RD, LUDDENHAM NSW 2745	335	52	36	29	27	38	31	35	40	34	47	37	37	41	42	
47202	NCA10	RES	336	688-708 LUDDENHAM RD, LUDDENHAM NSW 2745	336	52	36	30	27	39	31	36	41	35	48	39	39	43	43	
47210	NCA10	RES	337	688-708 LUDDENHAM RD, LUDDENHAM NSW 2745	337	52	37	30	27	39	32	36	41	35	47	37	38	41	42	
47237	NCA10	RES	342	693-711 LUDDENHAM RD, LUDDENHAM NSW 2745	342	52	37	30	28	37	29	34	38	33	42	33	33	37	37	
47242	NCA10	RES	345	693-711 LUDDENHAM RD, LUDDENHAM NSW 2745	345	52	39	32	29	29	21	26	30	25	34	24	25	28	29	
47243	NCA10	RES	345	693-711 LUDDENHAM RD, LUDDENHAM NSW 2745	345	52	28	22	19	37	30	35	39	33	44	34	34	38	39	
47272	NCA10	RES	349	710-732 LUDDENHAM RD, LUDDENHAM NSW 2745	349	52	35	28	25	36	29	33	38	32	44	34	35	38	39	
47276	NCA10	RES	350	2179A ELIZABETH DR, LUDDENHAM NSW 2745	5866	52	28	22	19	28	20	25	29	24	32	22	22	26	26	
47286	NCA10	RES	351	710-732 LUDDENHAM RD, LUDDENHAM NSW 2745	351	52	34	28	25	36	28	33	37	32	43	34	34	38	38	
47299	NCA10	RES	352	713-733 LUDDENHAM RD, LUDDENHAM NSW 2745	352	52	37	30	28	38	31	36	40	34	44	35	35	39	39	
47307	NCA10	RES	354	2207-2223 ELIZABETH DR, LUDDENHAM NSW 2745	5870	52	24	18	15	25	17	22	26	21	29	20	20	24	24	
47313	NCA10	RES	355	734 LUDDENHAM RD, LUDDENHAM NSW 2745	355	52	35	28	25	38	31	35	40	34	46	36	36	40	40	
47315	NCA10	RES	355	734 LUDDENHAM RD, LUDDENHAM NSW 2745	355	52	25	19	16	25	18	23	27	21	30	21	21	25	25	
47343	NCA10	RES	357	2207-2223 ELIZABETH DR, LUDDENHAM NSW 2745	5873	52	24	18	15	25	17	22	26	21	29	20	20	24	24	
47350	NCA10	RES	358	2207-2223 ELIZABETH DR, LUDDENHAM NSW 2745	5874	52	25	18	16	25	18	23	27	21	30	21	21	25	25	
47356	NCA10	RES	359	734-750 LUDDENHAM RD, LUDDENHAM NSW 2745	359	52	36	29	27	37	30	35	39	33	43	33	33	37	38	
47371	NCA10	RES	361	2225-2239 ELIZABETH DR, LUDDENHAM NSW 2745	5877	52	27	20	18	27	20	25	29	23	32	22	23	26	27	
47390	NCA10	RES	363	2225-2239 ELIZABETH DR, LUDDENHAM NSW 2745	5879	52	27	20	18	27	20	25	29	23	32	23	23	27	27	
47400	NCA10	RES	367	KARINGAL 752-810 LUDDENHAM RD, LUDDENHAM NSW 2745	367	52	32	25	22	35	27	32	36	31	41	32	32	36	36	
47405	NCA10	RES	377	KARINGAL 752-810 LUDDENHAM RD, LUDDENHAM NSW 2745	377	52	34	27	24	35	27	32	36	31	42	32	32	36	37	
47413	NCA10	RES	379	OROLOGONG PARK 2510-2550 ELIZABETH DR, LUDDENHAM NSW 2745	5895	52	24	17	14	24	16	21	25	20	29	19	19	23	24	
47447	NCA10	RES	384	812-844 LUDDENHAM RD, LUDDENHAM NSW 2745	384	52	31	24	22	32	24	29	34	28	39	29	29	33	33	
47454	NCA10	RES	385	812-844 LUDDENHAM RD, LUDDENHAM NSW 2745	385	52	31	24	22	32	24	29	34	28	38	29	29	33	33	
47490	NCA10	RES	386	812-844 LUDDENHAM RD, LUDDENHAM NSW 2745	386	52	26	20	17	28	21	26	30	24	36	26	26	30	31	
47499	NCA10	RES	390	2600 ELIZABETH DR, LUDDENHAM NSW 2745	5906	52	24	17	14	23	15	20	24	18	28	19	19	23	23	
47500	NCA10	RES	392	2600 ELIZABETH DR, LUDDENHAM NSW 2745	5908	52	23	16	13	23	15	20	24	19	27	18	18	22	22	
47506	NCA10	RES	394	2600 ELIZABETH DR, LUDDENHAM NSW 2745	5910	52	2	0	0	22	15	19	24	18	29	17	18	21	22	
47535	NCA10	RES	395	765 LUDDENHAM RD, LUDDENHAM NSW 2745	5911	52	32	25	23	33	25	30	34	28	38	29	29	33	33	
47541	NCA10	RES	398	765 LUDDENHAM RD, LUDDENHAM NSW 2745	5914	52	34	27	25	32	25	29	34	28	40	30	31	34	35	
47553	NCA10	RES	399	765 LUDDENHAM RD, LUDDENHAM NSW 2745	5915	52	32	25	23	32	25	30	34	28	40	31	31	35	35	
47561	NCA10	RES	407	777-819 LUDDENHAM RD, LUDDENHAM NSW 2745	5923	52	29	22	20	31	23	28	32	26	37	27	27	31	32	
47576	NCA10	RES	409	821 LUDDENHAM RD, LUDDENHAM NSW 2745	5925	52	28	21	19	31	24	28	33	27	37	28	28	32	32	
47588	NCA10	RES	421	851-867 LUDDENHAM RD, LUDDENHAM NSW 2745	5937	52	30	24	21	31	23	28	33	27	37	27	27	31	32	
47595	NCA10	RES	422	869-885 LUDDENHAM RD, LUDDENHAM NSW 2745	5938	52	27	20	17	27	20	24	29	23	35	23	24	27	28	
47601	NCA10	RES	424	869-885 LUDDENHAM RD, LUDDENHAM NSW 2745	5940	52	26	20	17	27	19	24	28	23	33	23	23	27	27	
47612	NCA10	RES	429	869-885 LUDDENHAM RD, LUDDENHAM NSW 2745	5945	52	27	20	18	27	20	25	29	23	32	23	23	27	28	
47628	NCA10	RES	430	892 LUDDENHAM RD, LUDDENHAM NSW 2745	430	52	29	22	19	29	22	26	31	25	35	25	25	29	30	
47648	NCA10	RES	432	869-885 LUDDENHAM RD, LUDDENHAM NSW 2745	5948	52	29	22	19	30	22	27	31	26	34	25	25	29	29	
47660	NCA10	RES	435	869A LUDDENHAM RD, LUDDENHAM NSW 2745	5951	52	26	19	17	27	19	24	28	23	32	23	23	27	27	
47662	NCA10	RES	437	892B LUDDENHAM RD, LUDDENHAM NSW 2745	437	52	26	19	16	26	19	24	28	22	32	23	23	27	27	
47675	NCA10	RES	438	1 MEDINAH AV, LUDDENHAM NSW 2745	438	52	42	35	33	44	36	41	45	39	41	31	32	35	36	
47696	NCA10	RES	439	1 MEDINAH AV, LUDDENHAM NSW 2745	439	52	40	33	30	42	33	38	42	37	38	29	29	33	33	
47700	NCA10	RES	440	1 MEDINAH AV, LUDDENHAM NSW 2745	440	52	40	33	30	42	33	38	42	37	38	29	29	33	33	
47723	NCA10	RES	441	11 MEDINAH AV, LUDDENHAM NSW 2745	441	52	41	34	31	41	32	37	41	36	39	30	30	34	34	
47728	NCA10	RES	442	11 MEDINAH AV, LUDDENHAM NSW 2745	442	52	36	29	27	37	28	33	38	32	35	26	26	30	30	
47739	NCA10	RES	444	12 MEDINAH AV, LUDDENHAM NSW 2745	444	52	40	33	31	41	33	38	42	36	39	30	30	34	34	
47755	NCA10	RES	445	13 MEDINAH AV, LUDDENHAM NSW 2745	445	52	40	34	31	40	32	37	41	35	39	29	30	33	34	
47771	NCA10	RES	447	14 MEDINAH AV, LUDDENHAM NSW 2745	447	52	38	31	29	41	33	37	42	36	38	29	29	33	33	
47797	NCA10	RES	448	15 MEDINAH AV, LUDDENHAM NSW 2745	448	52	38	31	29	40	31	36	40	35	36	26	27	31	31	
47814	NCA10	RES	450	16 MEDINAH AV, LUDDENHAM NSW 2745	450	52	41	34	31	28	21	26	30	24	39	30	30	34	34	
47815	NCA10	RES	450	16 MEDINAH AV, LUDDENHAM NSW 2745	450	52	28	21	19	43	34	39	44	38	34	25	25	29	29	
47842	NCA10	RES	451	17 MEDINAH AV, LUDDENHAM NSW 2745	451	52	34	27	25	40	31	36	40	35	35	26	26	30	30	
47852	NCA10	RES	452	17 MEDINAH AV, LUDDENHAM NSW 2745	452	52	37	31	28	40	31	36	41	35	37	26	27	30	31	
47864	NCA10	RES	452	17 MEDINAH AV, LUDDENHAM NSW 2745	452	52	28	21	19	29	21	26	30	25	34	25	25	29	29	
47878	NCA10	RES	453	19 MEDINAH AV, LUDDENHAM NSW 2745	453	52	40	33	30	42	34	39	43	37	38	29	29	33	33	
47895	NCA10	RES	454	1A MEDINAH AV, LUDDENHAM NSW 2745	454	52	43	36	33	45	36	41	45	40	41	32	32	36	36	
47923	NCA10	RES	455	2 MEDINAH AV, LUDDENHAM NSW 2745	455	52	43	36	33	43	34	39	43	38	41	31	32	36	36	
47946	NCA10	RES	456	21 MEDINAH AV, LUDDENHAM NSW 2745	456	52	37	30	28	40	31	36	40	35	36	26	26	30	31	
47960	NCA10	RES	457	23 MEDINAH AV, LUDDENHAM NSW 2745	457	52	37	30	28	40	31	36	40	35	36	26	26	30	31	

Predicted construction noise levels for sleep disturbance				Levels greater than NML are shown in Red																		
No.	NCA	Usage	Rec	Address	Unique ID	NML	Lmax dB(A)															
							Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16			
47978	NCA10	RES	458	24 MEDINAH AV, LUDDENHAM NSW 2745	458	52	38	31	29	43	35	40	44	38	39	29	30	33	34			
47998	NCA10	RES	459	25 MEDINAH AV, LUDDENHAM NSW 2745	459	52	37	30	28	40	31	36	40	35	35	26	26	30	30			
48020	NCA10	RES	460	25 MEDINAH AV, LUDDENHAM NSW 2745	460	52	37	30	27	39	31	36	40	35	35	26	26	30	30			
48032	NCA10	RES	461	26 MEDINAH AV, LUDDENHAM NSW 2745	461	52	40	33	31	43	35	39	44	38	38	29	29	33	34			
48053	NCA10	RES	462	26 MEDINAH AV, LUDDENHAM NSW 2745	462	52	38	31	28	41	32	37	41	36	38	27	27	31	31			
48060	NCA10	RES	463	27 MEDINAH AV, LUDDENHAM NSW 2745	463	52	37	30	28	40	31	36	41	35	35	26	26	30	30			
48098	NCA10	RES	464	29 MEDINAH AV, LUDDENHAM NSW 2745	464	52	39	33	30	42	34	39	43	37	38	28	29	32	33			
48125	NCA10	RES	466	3 MEDINAH AV, LUDDENHAM NSW 2745	466	52	39	33	30	42	33	38	42	37	38	28	29	32	33			
48135	NCA10	RES	467	31 MEDINAH AV, LUDDENHAM NSW 2745	467	52	37	30	27	40	31	36	40	35	36	26	26	30	30			
48155	NCA10	RES	468	4 MEDINAH AV, LUDDENHAM NSW 2745	468	52	39	32	30	42	34	38	43	37	38	28	29	33	33			
48160	NCA10	RES	469	4 MEDINAH AV, LUDDENHAM NSW 2745	469	52	42	36	33	42	34	38	43	37	41	31	32	35	36			
48173	NCA10	RES	470	5 MEDINAH AV, LUDDENHAM NSW 2745	470	52	39	32	30	41	33	38	42	36	38	28	29	32	33			
48197	NCA10	RES	471	6 MEDINAH AV, LUDDENHAM NSW 2745	471	52	42	35	33	44	36	41	45	39	41	31	31	35	35			
48209	NCA10	RES	473	7 MEDINAH AV, LUDDENHAM NSW 2745	473	52	41	35	32	43	35	40	44	38	40	30	31	34	35			
48248	NCA10	RES	474	8 MEDINAH AV, LUDDENHAM NSW 2745	474	52	42	35	32	44	37	41	46	40	41	31	32	35	36			
48254	NCA10	RES	475	9 MEDINAH AV, LUDDENHAM NSW 2745	475	52	38	31	29	40	32	37	41	35	37	27	28	31	32			
48260	NCA10	RES	476	9 MEDINAH AV, LUDDENHAM NSW 2745	476	52	39	32	29	41	32	37	41	36	37	28	28	32	32			
48282	NCA10	RES	477	10 PENNARD CR, LUDDENHAM NSW 2745	477	52	39	32	30	44	36	41	45	40	41	31	31	35	35			
48291	NCA10	RES	478	10 PENNARD CR, LUDDENHAM NSW 2745	478	52	42	35	32	46	37	42	46	41	40	31	31	35	36			
48306	NCA10	RES	480	11 PENNARD CR, LUDDENHAM NSW 2745	480	52	39	32	29	44	36	40	45	39	39	30	30	34	34			
48344	NCA10	RES	481	12 PENNARD CR, LUDDENHAM NSW 2745	481	52	41	34	32	45	37	42	46	40	41	31	31	35	35			
48361	NCA10	RES	482	12 PENNARD CR, LUDDENHAM NSW 2745	482	52	39	32	30	43	35	40	44	38	38	29	29	33	33			
48372	NCA10	RES	483	14 PENNARD CR, LUDDENHAM NSW 2745	483	52	41	34	32	45	37	42	46	40	41	31	31	35	35			
48393	NCA10	RES	486	15 PENNARD CR, LUDDENHAM NSW 2745	486	52	38	32	29	42	33	38	42	37	37	27	28	31	32			
48406	NCA10	RES	487	15 PENNARD CR, LUDDENHAM NSW 2745	487	52	41	34	32	43	34	39	43	38	39	30	30	34	34			
48426	NCA10	RES	488	16 PENNARD CR, LUDDENHAM NSW 2745	488	52	41	34	32	45	37	42	46	40	42	31	32	35	36			
48460	NCA10	RES	490	2 PENNARD CR, LUDDENHAM NSW 2745	490	52	40	33	30	43	35	39	44	38	39	30	30	34	34			
48474	NCA10	RES	491	2 PENNARD CR, LUDDENHAM NSW 2745	491	52	39	33	30	43	34	39	44	38	39	29	29	33	33			
48482	NCA10	RES	492	3 PENNARD CR, LUDDENHAM NSW 2745	492	52	39	33	30	43	34	39	43	38	38	28	29	32	33			
48492	NCA10	RES	493	3 PENNARD CR, LUDDENHAM NSW 2745	493	52	40	33	30	42	34	39	43	37	38	29	30	33	34			
48515	NCA10	RES	494	4 PENNARD CR, LUDDENHAM NSW 2745	494	52	42	35	32	45	37	41	46	40	40	31	31	35	35			
48543	NCA10	RES	496	4 PENNARD CR, LUDDENHAM NSW 2745	496	52	42	35	33	45	36	41	45	40	41	31	32	35	36			
48548	NCA10	RES	497	4 PENNARD CR, LUDDENHAM NSW 2745	497	52	39	32	30	41	33	38	42	36	39	29	30	33	34			
48563	NCA10	RES	498	5 PENNARD CR, LUDDENHAM NSW 2745	498	52	39	32	30	42	34	39	43	37	38	28	28	32	33			
48581	NCA10	RES	500	6 PENNARD CR, LUDDENHAM NSW 2745	500	52	39	33	30	43	35	39	44	38	38	28	29	32	33			
48589	NCA10	RES	501	6 PENNARD CR, LUDDENHAM NSW 2745	501	52	42	35	32	45	37	42	46	41	40	31	31	35	35			
48608	NCA10	RES	503	7 PENNARD CR, LUDDENHAM NSW 2745	503	52	39	32	30	42	34	38	43	37	37	28	28	32	32			
48623	NCA10	RES	504	8 PENNARD CR, LUDDENHAM NSW 2745	504	52	42	35	32	45	37	42	46	41	40	31	31	35	35			
48651	NCA10	RES	505	9 PENNARD CR, LUDDENHAM NSW 2745	505	52	39	32	29	42	33	38	42	37	37	28	28	32	32			
48667	NCA10	RES	507	10 PINE VALLEY CR, LUDDENHAM NSW 2745	507	52	38	32	29	41	33	38	42	36	39	29	29	33	33			
48689	NCA10	RES	509	11 PINE VALLEY CR, LUDDENHAM NSW 2745	509	52	40	33	31	43	35	40	44	38	39	30	30	34	34			
48708	NCA10	RES	510	11 PINE VALLEY CR, LUDDENHAM NSW 2745	510	52	39	32	30	43	35	40	44	38	40	30	30	34	34			
48716	NCA10	RES	511	12 PINE VALLEY CR, LUDDENHAM NSW 2745	511	52	40	34	31	43	35	39	44	38	39	29	30	33	34			
48738	NCA10	RES	512	13 PINE VALLEY CR, LUDDENHAM NSW 2745	512	52	41	34	31	44	35	40	45	39	40	30	30	34	34			
48756	NCA10	RES	513	15 PINE VALLEY CR, LUDDENHAM NSW 2745	513	52	38	31	28	41	33	38	42	36	39	29	30	33	34			
48770	NCA10	RES	514	17 PINE VALLEY CR, LUDDENHAM NSW 2745	514	52	38	31	29	43	35	39	44	38	39	29	30	33	34			
48809	NCA10	RES	516	2 PINE VALLEY CR, LUDDENHAM NSW 2745	516	52	41	35	32	44	35	40	44	39	40	30	31	35	35			
48821	NCA10	RES	517	3 PINE VALLEY CR, LUDDENHAM NSW 2745	517	52	40	33	30	45	36	41	45	40	39	30	30	34	34			
48828	NCA10	RES	518	3 PINE VALLEY CR, LUDDENHAM NSW 2745	518	52	42	35	33	45	35	39	44	38	41	31	31	35	35			
48855	NCA10	RES	519	4 PINE VALLEY CR, LUDDENHAM NSW 2745	519	52	41	35	32	42	33	38	42	37	40	30	31	35	35			
48871	NCA10	RES	520	5 PINE VALLEY CR, LUDDENHAM NSW 2745	520	52	42	35	32	45	35	40	44	39	40	31	31	35	35			
48894	NCA10	RES	522	6 PINE VALLEY CR, LUDDENHAM NSW 2745	522	52	39	32	29	42	33	38	42	37	38	28	28	32	32			
48907	NCA10	RES	524	7 PINE VALLEY CR, LUDDENHAM NSW 2745	524	52	42	35	32	45	36	41	45	40	40	31	31	35	35			
48921	NCA10	RES	525	8 PINE VALLEY CR, LUDDENHAM NSW 2745	525	52	39	32	29	41	33	38	42	36	37	28	28	32	32			
48943	NCA10	RES	527	9 PINE VALLEY CR, LUDDENHAM NSW 2745	527	52	42	35	32	42	34	38	43	37	40	31	31	35	35			
48950	NCA10	RES	528	1 PORTRUSH CR, LUDDENHAM NSW 2745	528	52	45	38	36	51	42	47	51	46	45	35	36	39	40			
48957	NCA10	RES	530	1 PORTRUSH CR, LUDDENHAM NSW 2745	530	52	48	41	38	51	42	47	51	46	46	37	37	41	41			
48976	NCA10	RES	531	10 PORTRUSH CR, LUDDENHAM NSW 2745	531	52	44	37	35	49	40	45	49	43	43	33	33	37	38			
48993	NCA10	RES	532	10 PORTRUSH CR, LUDDENHAM NSW 2745	532	52	44	37	35	47	39	44	48	43	42	33	33	37	37			
49002	NCA10	RES	533	11 PORTRUSH CR, LUDDENHAM NSW 2745	533	52	44	37	35	55	45	50	55	49	46	37	37	41	41			
49017	NCA10	RES	535	12 PORTRUSH CR, LUDDENHAM NSW 2745	535	52	47	40	38	52	43	47	52	46	45	36	36	40	40			
49034	NCA10	RES	536	12 PORTRUSH CR, LUDDENHAM NSW 2745	536	52	44	37	35	49	40	45	49	43	42	33	33	37	37			
49036	NCA10	RES	537	12 PORTRUSH CR, LUDDENHAM NSW 2745	537	52	34	27	25	42	34	39	43	38	42	33	33	37	37			
49088	NCA10	RES	539	13 PORTRUSH CR, LUDDENHAM NSW 2745	539	52	48	41	38	54	45	50	54	48	47	37	37	41	41			
49106	NCA10	RES	540	14 PORTRUSH CR, LUDDENHAM NSW 2745	540	52	44	37	34	49	40	45	49	43	42	33	33	37	37			
49125	NCA10	RES	543	14 PORTRUSH CR, LUDDENHAM NSW 2745	543	52	47	40	37	50	41	45	50	44	45	36	36	40	40			
49154	NCA10	RES	545	15 PORTRUSH CR, LUDDENHAM NSW 2745	545	52	45	39	36	54	45	50	54	49	45	35	36	40	40			
49169	NCA10	RES	546	16 PORTRUSH CR, LUDDENHAM NSW 2745	546	52	36	29	26	50	41	45	50	44	43	33	34	38	38			
49195	NCA10	RES	547	16 PORTRUSH CR, LUDDENHAM NSW 2745	547	52	45	38	36	50	41	46	50	45	45	36	40	40	40			

Predicted construction noise levels for sleep disturbance				Levels greater than NML are shown in Red																		
No.	NCA	Usage	Rec	Address	Unique ID	NML	Lmax dB(A)															
							Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16			
49235	NCA10	RES	548	17 PORTRUSH CR, LUDDENHAM NSW 2745	548	52	46	39	36	58	49	54	58	52	48	38	39	42	43			
49243	NCA10	RES	552	17 PORTRUSH CR, LUDDENHAM NSW 2745	552	52	46	39	36	56	47	52	57	51	45	35	38	41	42			
49248	NCA10	RES	553	17 PORTRUSH CR, LUDDENHAM NSW 2745	553	52	48	41	39	58	49	53	58	52	48	38	39	42	43			
49271	NCA10	RES	555	18 PORTRUSH CR, LUDDENHAM NSW 2745	555	52	46	40	37	50	41	46	50	45	35	36	39	40				
49277	NCA10	RES	557	19 PORTRUSH CR, LUDDENHAM NSW 2745	557	52	49	42	39	59	49	54	58	53	48	38	39	42	43			
49304	NCA10	RES	559	2 PORTRUSH CR, LUDDENHAM NSW 2745	559	52	47	40	37	50	41	46	50	44	35	36	36	40	40			
49338	NCA10	RES	561	21 PORTRUSH CR, LUDDENHAM NSW 2745	561	52	46	39	36	57	47	52	56	51	47	38	38	42	42			
49376	NCA10	RES	562	22 PORTRUSH CR, LUDDENHAM NSW 2745	562	52	47	40	37	52	42	47	51	46	35	36	36	40	40			
49401	NCA10	RES	565	23 PORTRUSH CR, LUDDENHAM NSW 2745	565	52	46	39	36	55	46	51	55	49	46	37	37	41	41			
49412	NCA10	RES	567	24 PORTRUSH CR, LUDDENHAM NSW 2745	567	52	45	38	35	52	44	49	53	48	45	36	37	40	41			
49440	NCA10	RES	569	24 PORTRUSH CR, LUDDENHAM NSW 2745	569	52	42	35	32	51	40	45	49	43	33	34	37	38				
49451	NCA10	RES	570	26 PORTRUSH CR, LUDDENHAM NSW 2745	570	52	46	39	37	54	45	50	55	49	46	36	37	41	41			
49475	NCA10	RES	572	28 PORTRUSH CR, LUDDENHAM NSW 2745	572	52	45	38	35	52	43	48	52	47	44	34	35	38	39			
49497	NCA10	RES	573	28 PORTRUSH CR, LUDDENHAM NSW 2745	573	52	42	36	33	50	42	47	51	46	44	34	34	38	39			
49502	NCA10	RES	574	30 PORTRUSH CR, LUDDENHAM NSW 2745	574	52	36	29	27	48	40	45	49	44	44	34	35	38	39			
49513	NCA10	RES	575	30 PORTRUSH CR, LUDDENHAM NSW 2745	575	52	46	39	36	55	47	52	56	50	46	37	37	41	42			
49549	NCA10	RES	576	34 PORTRUSH CR, LUDDENHAM NSW 2745	576	52	44	37	34	56	48	53	57	51	47	37	38	41	42			
49566	NCA10	RES	578	34 PORTRUSH CR, LUDDENHAM NSW 2745	578	52	41	34	31	49	41	46	50	44	45	35	36	39	40			
49572	NCA10	RES	579	34 PORTRUSH CR, LUDDENHAM NSW 2745	579	52	43	37	34	53	45	49	54	48	45	35	36	39	40			
49576	NCA10	RES	580	36 PORTRUSH CR, LUDDENHAM NSW 2745	580	52	45	38	36	55	46	51	55	50	48	38	38	42	43			
49600	NCA10	RES	582	36 PORTRUSH CR, LUDDENHAM NSW 2745	582	52	38	31	29	52	44	49	53	47	45	36	36	40	40			
49621	NCA10	RES	583	38 PORTRUSH CR, LUDDENHAM NSW 2745	583	52	48	41	39	58	49	54	59	53	48	39	39	43	43			
49649	NCA10	RES	585	4 PORTRUSH CR, LUDDENHAM NSW 2745	585	52	47	40	38	48	39	44	48	42	45	36	36	40	40			
49676	NCA10	RES	586	40 PORTRUSH CR, LUDDENHAM NSW 2745	586	52	46	39	36	56	47	52	56	51	48	38	39	42	43			
49684	NCA10	RES	587	42 PORTRUSH CR, LUDDENHAM NSW 2745	587	52	42	36	33	57	48	52	57	51	46	36	37	40	41			
49694	NCA10	RES	588	42 PORTRUSH CR, LUDDENHAM NSW 2745	588	52	46	39	37	57	48	53	57	52	48	39	39	43	43			
49705	NCA10	RES	589	44 PORTRUSH CR, LUDDENHAM NSW 2745	589	52	47	40	37	59	49	54	58	53	48	39	39	43	43			
49719	NCA10	RES	590	44 PORTRUSH CR, LUDDENHAM NSW 2745	590	52	46	40	37	61	51	56	60	54	49	39	39	43	44			
49738	NCA10	RES	591	46 PORTRUSH CR, LUDDENHAM NSW 2745	591	52	49	43	40	62	52	56	61	55	49	39	40	43	44			
49756	NCA10	RES	592	46 PORTRUSH CR, LUDDENHAM NSW 2745	592	52	47	40	37	61	51	56	61	55	49	39	40	43	44			
49765	NCA10	RES	593	48 PORTRUSH CR, LUDDENHAM NSW 2745	593	52	50	43	40	61	49	54	58	53	49	40	40	44	44			
49793	NCA10	RES	594	48 PORTRUSH CR, LUDDENHAM NSW 2745	594	52	47	41	38	61	50	55	59	54	47	37	38	41	42			
49799	NCA10	RES	595	48 PORTRUSH CR, LUDDENHAM NSW 2745	595	52	47	40	38	63	53	57	62	56	50	41	41	45	45			
49804	NCA10	RES	596	48 PORTRUSH CR, LUDDENHAM NSW 2745	596	52	47	40	37	63	53	57	62	56	49	40	40	44	44			
49807	NCA10	RES	597	5 PORTRUSH CR, LUDDENHAM NSW 2745	597	52	48	41	38	53	43	48	52	47	46	37	37	41	41			
49815	NCA10	RES	598	5 PORTRUSH CR, LUDDENHAM NSW 2745	598	52	46	40	37	50	41	46	50	44	46	36	37	40	41			
49817	NCA10	RES	599	5 PORTRUSH CR, LUDDENHAM NSW 2745	599	52	47	40	37	53	43	48	52	47	46	37	37	41	41			
49842	NCA10	RES	600	52 PORTRUSH CR, LUDDENHAM NSW 2745	600	52	47	41	38	60	49	54	59	53	48	39	39	43	43			
49859	NCA10	RES	602	52 PORTRUSH CR, LUDDENHAM NSW 2745	602	52	37	30	27	59	49	53	58	52	46	37	37	41	41			
49876	NCA10	RES	603	54 PORTRUSH CR, LUDDENHAM NSW 2745	603	52	47	40	37	57	47	52	56	51	47	36	37	40	41			
49894	NCA10	RES	604	54 PORTRUSH CR, LUDDENHAM NSW 2745	604	52	47	40	38	57	47	52	56	51	46	36	37	40	41			
49899	NCA10	RES	605	56 PORTRUSH CR, LUDDENHAM NSW 2745	605	52	47	40	37	56	46	51	55	49	47	37	38	41	42			
49925	NCA10	RES	606	58 PORTRUSH CR, LUDDENHAM NSW 2745	606	52	48	42	39	55	45	50	54	49	47	37	38	41	42			
49950	NCA10	RES	607	6 PORTRUSH CR, LUDDENHAM NSW 2745	607	52	45	38	35	51	42	46	51	45	44	34	35	38	39			
49970	NCA10	RES	608	6 PORTRUSH CR, LUDDENHAM NSW 2745	608	52	32	25	23	39	31	36	40	35	43	33	33	37	38			
49974	NCA10	RES	610	6 PORTRUSH CR, LUDDENHAM NSW 2745	610	52	44	37	35	45	38	43	47	42	43	33	33	37	37			
49982	NCA10	RES	611	60 PORTRUSH CR, LUDDENHAM NSW 2745	611	52	46	40	37	54	44	49	53	48	46	35	36	39	40			
49997	NCA10	RES	613	62 PORTRUSH CR, LUDDENHAM NSW 2745	613	52	46	39	37	55	46	51	55	50	46	37	37	41	41			
50021	NCA10	RES	614	62 PORTRUSH CR, LUDDENHAM NSW 2745	614	52	49	42	39	53	44	49	53	47	38	38	42	42	42			
50029	NCA10	RES	615	64 PORTRUSH CR, LUDDENHAM NSW 2745	615	52	46	39	37	55	45	50	54	48	46	37	37	41	41			
50047	NCA10	RES	616	64 PORTRUSH CR, LUDDENHAM NSW 2745	616	52	48	42	39	52	43	48	52	46	47	37	38	41	42			
50050	NCA10	RES	617	66 PORTRUSH CR, LUDDENHAM NSW 2745	617	52	48	41	39	51	42	47	51	46	47	37	37	41	41			
50071	NCA10	RES	618	68 PORTRUSH CR, LUDDENHAM NSW 2745	618	52	46	39	36	51	42	47	51	45	45	35	36	39	40			
50108	NCA10	RES	620	8 PORTRUSH CR, LUDDENHAM NSW 2745	620	52	44	37	35	48	39	44	48	43	42	33	33	37	37			
50114	NCA10	RES	621	8 PORTRUSH CR, LUDDENHAM NSW 2745	621	52	44	38	35	50	41	46	50	45	44	35	35	39	39			
50134	NCA10	RES	622	11 TWIN CREEKS DR, LUDDENHAM NSW 2745	622	52	40	33	30	43	34	39	43	38	41	31	31	35	35			
50153	NCA10	RES	623	13 TWIN CREEKS DR, LUDDENHAM NSW 2745	623	52	32	25	23	43	35	39	44	38	38	28	29	32	33			
50160	NCA10	RES	624	13 TWIN CREEKS DR, LUDDENHAM NSW 2745	624	52	42	35	33	44	34	44	49	41	31	31	35	36	36			
50182	NCA10	RES	625	13 TWIN CREEKS DR, LUDDENHAM NSW 2745	625	52	40	33	30	44	35	40	44	38	38	29	29	33	33			
50185	NCA10	RES	626	13 TWIN CREEKS DR, LUDDENHAM NSW 2745	626	52	40	33	30	44	35	40	44	39	39	30	30	34	34			
50196	NCA10	RES	627	14 TWIN CREEKS DR, LUDDENHAM NSW 2745	627	52	43	36	33	46	37	42	46	41	41	32	32	36	36			
50220	NCA10	RES	628	15 TWIN CREEKS DR, LUDDENHAM NSW 2745	628	52	42	36	33	44	35	40	45	39	41	32	32	35	36			
50238	NCA10	RES	629	15 TWIN CREEKS DR, LUDDENHAM NSW 2745	629	52	42	35	33	44	36	40	45	39	41	31	31	35	35			
50244	NCA10	RES	631	15 TWIN CREEKS DR, LUDDENHAM NSW 2745	631	52	40	33	30	45	38	42	47	41	41	32	32	35	36			
50249	NCA10	RES	632	15 TWIN CREEKS DR, LUDDENHAM NSW 2745	632	52	40	33	30	45	37	42	46	41	40	31	31	35	35			
50257	NCA10	RES	633	17 TWIN CREEKS DR, LUDDENHAM NSW 2745	633	52	42	35	33	46	38	43	47	41	41	32	32	36	36			
50266	NCA10	RES	634	17 TWIN CREEKS DR, LUDDENHAM NSW 2745	634	52	42	35	33	46	38	43	47	41	41	32	32	36	36			
50271	NCA10	RES	635	17 TWIN CREEKS DR, LUDDENHAM NSW 2745	635	52	40	33	30	46	38	43	47	41	41	32	32	36	36			
50317	NCA10	RES	636	18 TWIN CREEKS DR, LUDDENHAM NSW 2745	636	52	43	36	33	48	37	42	47	41	42	33	33	37	37			

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					Unique ID	NML	Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16	
50325	NCA10	RES	643	20 TWIN CREEKS DR, LUDDENHAM NSW 2745	643	52	40	33	31	44	35	40	44	39	38	29	29	33	33	
50341	NCA10	RES	644	21 TWIN CREEKS DR, LUDDENHAM NSW 2745	644	52	40	33	30	44	36	40	45	39	39	29	30	33	34	
50349	NCA10	RES	645	21 TWIN CREEKS DR, LUDDENHAM NSW 2745	645	52	40	33	30	44	36	40	45	39	41	31	32	35	36	
50365	NCA10	RES	646	21 TWIN CREEKS DR, LUDDENHAM NSW 2745	646	52	42	35	33	46	38	43	47	41	41	32	32	36	36	
50383	NCA10	RES	648	22 TWIN CREEKS DR, LUDDENHAM NSW 2745	648	52	43	36	33	46	38	43	47	41	41	32	32	36	36	
50403	NCA10	RES	652	24 TWIN CREEKS DR, LUDDENHAM NSW 2745	652	52	43	36	34	45	36	41	45	40	41	32	32	36	36	
50438	NCA10	RES	653	26 TWIN CREEKS DR, LUDDENHAM NSW 2745	653	52	42	35	32	47	39	43	48	42	41	32	32	36	36	
50469	NCA10	RES	654	27 TWIN CREEKS DR, LUDDENHAM NSW 2745	654	52	40	33	31	46	37	42	47	41	44	34	34	38	38	
50480	NCA10	RES	655	27 TWIN CREEKS DR, LUDDENHAM NSW 2745	655	52	35	28	26	45	36	41	45	40	43	31	32	35	36	
50485	NCA10	RES	656	28 TWIN CREEKS DR, LUDDENHAM NSW 2745	656	52	40	34	31	45	37	41	46	40	41	32	32	36	36	
50506	NCA10	RES	657	28 TWIN CREEKS DR, LUDDENHAM NSW 2745	657	52	41	34	31	48	39	44	49	43	43	33	33	37	38	
50521	NCA10	RES	658	29 TWIN CREEKS DR, LUDDENHAM NSW 2745	658	52	40	33	31	45	37	42	46	41	43	34	34	38	38	
50539	NCA10	RES	660	29 TWIN CREEKS DR, LUDDENHAM NSW 2745	660	52	36	29	26	45	36	41	46	40	43	33	33	37	38	
50546	NCA10	RES	661	30 TWIN CREEKS DR, LUDDENHAM NSW 2745	661	52	40	33	31	45	36	41	45	40	40	30	31	35	35	
50575	NCA10	RES	663	31 TWIN CREEKS DR, LUDDENHAM NSW 2745	663	52	40	33	30	45	37	42	46	40	41	32	32	36	36	
50591	NCA10	RES	664	31 TWIN CREEKS DR, LUDDENHAM NSW 2745	664	52	40	33	30	46	38	43	47	42	43	33	34	37	38	
50595	NCA10	RES	666	32 TWIN CREEKS DR, LUDDENHAM NSW 2745	666	52	43	36	33	48	39	44	48	43	42	33	33	37	37	
50619	NCA10	RES	668	33 TWIN CREEKS DR, LUDDENHAM NSW 2745	668	52	40	33	30	46	38	43	47	42	45	34	35	38	39	
50638	NCA10	RES	669	33 TWIN CREEKS DR, LUDDENHAM NSW 2745	669	52	39	32	30	44	36	41	45	40	41	32	32	36	36	
50640	NCA10	RES	671	34 TWIN CREEKS DR, LUDDENHAM NSW 2745	671	52	43	36	33	47	39	44	48	43	42	32	33	37	37	
50668	NCA10	RES	672	34 TWIN CREEKS DR, LUDDENHAM NSW 2745	672	52	42	35	32	46	38	43	48	42	43	34	34	38	38	
50692	NCA10	RES	673	35 TWIN CREEKS DR, LUDDENHAM NSW 2745	673	52	42	35	32	46	38	43	48	42	44	34	35	38	39	
50720	NCA10	RES	674	36 TWIN CREEKS DR, LUDDENHAM NSW 2745	674	52	43	36	33	47	39	44	48	43	42	33	33	37	37	
50732	NCA10	RES	675	36 TWIN CREEKS DR, LUDDENHAM NSW 2745	675	52	40	33	31	47	39	44	48	43	42	33	33	37	37	
50741	NCA10	RES	676	36 TWIN CREEKS DR, LUDDENHAM NSW 2745	676	52	40	33	31	45	37	42	46	40	40	30	31	34	35	
50746	NCA10	RES	677	37 TWIN CREEKS DR, LUDDENHAM NSW 2745	677	52	38	31	29	43	35	40	44	39	41	31	32	35	36	
50759	NCA10	RES	679	37 TWIN CREEKS DR, LUDDENHAM NSW 2745	679	52	41	35	32	46	38	43	47	42	44	34	35	38	39	
50778	NCA10	RES	682	38 TWIN CREEKS DR, LUDDENHAM NSW 2745	682	52	43	36	34	46	38	43	47	41	42	32	33	36	37	
50806	NCA10	RES	683	39 TWIN CREEKS DR, LUDDENHAM NSW 2745	683	52	39	32	29	43	35	40	44	39	42	32	32	36	36	
50827	NCA10	RES	684	40 TWIN CREEKS DR, LUDDENHAM NSW 2745	684	52	41	34	32	49	41	45	50	44	45	35	36	39	40	
50841	NCA10	RES	686	41 TWIN CREEKS DR, LUDDENHAM NSW 2745	686	52	38	31	28	43	35	40	44	38	41	32	32	36	36	
50855	NCA10	RES	687	41 TWIN CREEKS DR, LUDDENHAM NSW 2745	687	52	38	31	29	43	35	39	44	38	41	30	30	34	34	
50864	NCA10	RES	688	42 TWIN CREEKS DR, LUDDENHAM NSW 2745	688	52	41	34	32	48	41	45	50	44	44	35	35	39	40	
50888	NCA10	RES	690	43 TWIN CREEKS DR, LUDDENHAM NSW 2745	690	52	38	31	29	43	35	39	44	38	44	32	32	36	36	
50891	NCA10	RES	691	43 TWIN CREEKS DR, LUDDENHAM NSW 2745	691	52	35	28	26	42	34	39	43	38	41	31	32	35	36	
50903	NCA10	RES	692	43 TWIN CREEKS DR, LUDDENHAM NSW 2745	692	52	39	33	30	46	38	42	47	41	44	33	33	37	37	
50912	NCA10	RES	693	44 TWIN CREEKS DR, LUDDENHAM NSW 2745	693	52	43	36	34	49	41	46	50	44	42	33	33	37	37	
50921	NCA10	RES	694	44 TWIN CREEKS DR, LUDDENHAM NSW 2745	694	52	41	35	32	49	40	45	50	44	45	35	36	39	40	
50955	NCA10	RES	696	45 TWIN CREEKS DR, LUDDENHAM NSW 2745	696	52	38	31	29	44	35	40	44	39	45	32	33	36	37	
50982	NCA10	RES	698	47 TWIN CREEKS DR, LUDDENHAM NSW 2745	698	52	40	33	31	44	36	41	45	40	44	34	34	38	38	
51001	NCA10	RES	699	47 TWIN CREEKS DR, LUDDENHAM NSW 2745	699	52	37	31	28	42	34	38	43	37	41	31	31	35	35	
51019	NCA10	RES	700	48 TWIN CREEKS DR, LUDDENHAM NSW 2745	700	52	42	36	33	49	41	45	50	44	46	36	36	39	40	
51029	NCA10	RES	702	49 TWIN CREEKS DR, LUDDENHAM NSW 2745	702	52	34	27	25	41	33	38	42	37	41	29	29	33	33	
51049	NCA10	RES	703	49 TWIN CREEKS DR, LUDDENHAM NSW 2745	703	52	37	30	27	42	35	39	44	38	44	33	34	38	38	
51054	NCA10	RES	704	5 TWIN CREEKS DR, LUDDENHAM NSW 2745	704	52	40	33	30	43	34	39	43	38	38	29	29	33	33	
51076	NCA10	RES	705	50 TWIN CREEKS DR, LUDDENHAM NSW 2745	705	52	41	35	32	49	41	46	50	44	46	36	37	40	41	
51099	NCA10	RES	708	51 TWIN CREEKS DR, LUDDENHAM NSW 2745	708	52	35	28	26	43	35	40	44	38	44	33	34	37	38	
51120	NCA10	RES	709	52 TWIN CREEKS DR, LUDDENHAM NSW 2745	709	52	39	32	30	48	40	45	49	43	46	35	36	39	40	
51160	NCA10	RES	710	52 TWIN CREEKS DR, LUDDENHAM NSW 2745	710	52	42	35	32	47	39	44	48	42	45	35	35	39	39	
51165	NCA10	RES	711	53 TWIN CREEKS DR, LUDDENHAM NSW 2745	711	52	37	30	27	41	33	38	42	37	41	30	31	34	35	
51171	NCA10	RES	712	53 TWIN CREEKS DR, LUDDENHAM NSW 2745	712	52	36	29	27	40	33	38	42	36	43	33	33	37	38	
51198	NCA10	RES	715	54 TWIN CREEKS DR, LUDDENHAM NSW 2745	715	52	42	35	32	46	38	43	47	42	45	35	35	39	39	
51216	NCA10	RES	716	54 TWIN CREEKS DR, LUDDENHAM NSW 2745	716	52	35	28	25	44	36	41	45	39	42	32	33	36	37	
51220	NCA10	RES	717	55 TWIN CREEKS DR, LUDDENHAM NSW 2745	717	52	39	32	29	43	35	40	44	38	41	31	31	35	35	
51239	NCA10	RES	718	55 TWIN CREEKS DR, LUDDENHAM NSW 2745	718	52	37	30	27	41	33	38	42	36	40	30	30	34	34	
51244	NCA10	RES	719	55 TWIN CREEKS DR, LUDDENHAM NSW 2745	719	52	37	30	27	41	33	38	42	36	41	30	31	34	35	
51271	NCA10	RES	721	58 TWIN CREEKS DR, LUDDENHAM NSW 2745	721	52	41	34	31	45	38	42	47	41	45	35	35	39	39	
51286	NCA10	RES	722	62 TWIN CREEKS DR, LUDDENHAM NSW 2745	722	52	38	31	29	43	35	39	44	38	45	35	35	39	39	
51300	NCA10	RES	723	62 TWIN CREEKS DR, LUDDENHAM NSW 2745	723	52	38	31	29	44	36	41	45	39	45	35	35	39	39	
51316	NCA10	RES	725	62 TWIN CREEKS DR, LUDDENHAM NSW 2745	725	52	38	31	29	43	35	40	44	39	45	32	33	36	37	
51329	NCA10	RES	727	62 TWIN CREEKS DR, LUDDENHAM NSW 2745	727	52	40	33	31	45	37	42	46	41	44	35	35	39	39	
51343	NCA10	RES	728	64 TWIN CREEKS DR, LUDDENHAM NSW 2745	728	52	40	33	30	44	37	42	46	40	43	33	34	37	38	
51369	NCA10	RES	730	64 TWIN CREEKS DR, LUDDENHAM NSW 2745	730	52	39	32	30	44	36	41	45	40	46	33	34	37	38	
51378	NCA10	RES	731	7 TWIN CREEKS DR, LUDDENHAM NSW 2745	731	52	40	33	30	43	34	39	43	38	38	29	29	33	33	
51391	NCA10	RES	732	9 TWIN CREEKS DR, LUDDENHAM NSW 2745	732	52	42	35	32	45	37	41	46	40	40	31	31	35	35	
51422	NCA10	RES	736	1 VENTANA CT, LUDDENHAM NSW 2745	736	52	40	34	31	46	38	43	47	41	44	35	35	39	39	
51444	NCA10	RES	737	2 VENTANA CT, LUDDENHAM NSW 2745	737	52	41	34	31	46	38	43	47	42	45	35	36	39	40	
51458	NCA10	RES	738	2 VENTANA CT, LUDDENHAM NSW 2745	738	52	43	36	34	48	38	43	47	42	45	35	36	39	40	
51477	NCA10	RES	740	3 VENTANA CT, LUDDENHAM NSW 2745	740	52	40	33	31	46	38	42	47	41	46	36	36	40	40	

Predicted construction noise levels for sleep disturbance				Levels greater than NML are shown in Red																		
No.	NCA	Usage	Rec	Address	Unique ID	NML	Lmax dB(A)															
							Activity 1	Activity 2a	Activity 2b	Activity 3	Activity 4	Activity 6	Activity 7	Activity 8	Activity 9	Activity 12	Activity 14	Activity 15	Activity 16			
51487	NCA10	RES	741	4 VENTANA CT, LUDDENHAM NSW 2745	741	52	44	37	34	50	42	47	51	45	44	34	38	38				
51493	NCA10	RES	742	4 VENTANA CT, LUDDENHAM NSW 2745	742	52	44	37	34	50	42	47	51	45	45	36	36	40	40			
51518	NCA10	RES	743	5 VENTANA CT, LUDDENHAM NSW 2745	743	52	41	34	32	47	39	44	48	43	46	37	37	41	41			
51534	NCA10	RES	744	6 VENTANA CT, LUDDENHAM NSW 2745	744	52	42	35	33	49	41	45	50	44	46	35	35	39	39			
51546	NCA10	RES	745	6 VENTANA CT, LUDDENHAM NSW 2745	745	52	43	36	34	47	39	44	48	42	44	34	35	38	39			
51576	NCA10	RES	746	7 VENTANA CT, LUDDENHAM NSW 2745	746	52	41	34	31	48	40	45	49	43	45	36	36	40	40			
51589	NCA10	RES	748	7 VENTANA CT, LUDDENHAM NSW 2745	748	52	41	34	32	47	38	43	48	42	44	34	35	38	39			
51598	NCA10	RES	749	1 WOODHALL PL, LUDDENHAM NSW 2745	749	52	40	33	30	44	36	41	45	40	42	32	33	36	37			
51618	NCA10	RES	751	11 WOODHALL PL, LUDDENHAM NSW 2745	751	52	38	31	28	43	34	39	44	38	42	32	32	36	36			
51622	NCA10	RES	752	11 WOODHALL PL, LUDDENHAM NSW 2745	752	52	38	31	29	45	37	41	46	40	41	31	32	35	36			
51649	NCA10	RES	753	13 WOODHALL PL, LUDDENHAM NSW 2745	753	52	39	32	30	44	36	41	45	40	42	32	32	36	36			
51671	NCA10	RES	754	15 WOODHALL PL, LUDDENHAM NSW 2745	754	52	38	31	28	42	34	39	43	37	39	29	30	34	34			
51680	NCA10	RES	755	15 WOODHALL PL, LUDDENHAM NSW 2745	755	52	42	35	32	44	36	41	45	40	42	32	32	36	36			
51736	NCA10	RES	756	17 WOODHALL PL, LUDDENHAM NSW 2745	756	52	38	31	28	43	36	40	45	39	42	32	32	36	36			
51766	NCA10	RES	757	19 WOODHALL PL, LUDDENHAM NSW 2745	757	52	40	33	30	44	36	40	45	39	42	32	32	36	37			
51768	NCA10	RES	759	2 WOODHALL PL, LUDDENHAM NSW 2745	759	52	39	32	30	44	35	40	45	39	39	29	30	33	34			
51782	NCA10	RES	760	2 WOODHALL PL, LUDDENHAM NSW 2745	760	52	39	32	30	44	37	41	46	40	41	32	32	36	36			
51797	NCA10	RES	761	3 WOODHALL PL, LUDDENHAM NSW 2745	761	52	39	33	30	44	36	40	45	39	42	32	33	36	37			
51820	NCA10	RES	763	4 WOODHALL PL, LUDDENHAM NSW 2745	763	52	39	32	30	43	35	40	44	39	41	29	30	33	34			
51855	NCA10	RES	765	5 WOODHALL PL, LUDDENHAM NSW 2745	765	52	42	35	32	46	38	43	47	41	42	32	33	36	37			
51865	NCA10	RES	766	6 WOODHALL PL, LUDDENHAM NSW 2745	766	52	36	29	26	42	34	38	43	37	39	29	29	33	34			
51875	NCA10	RES	767	6 WOODHALL PL, LUDDENHAM NSW 2745	767	52	39	32	29	43	35	39	44	38	39	29	30	33	34			
51891	NCA10	RES	768	7 WOODHALL PL, LUDDENHAM NSW 2745	768	52	39	32	30	45	37	42	46	41	42	32	33	36	37			
51912	NCA10	RES	769	7 WOODHALL PL, LUDDENHAM NSW 2745	769	52	39	32	29	46	38	42	47	41	42	32	32	36	36			
51917	NCA10	RES	770	9 WOODHALL PL, LUDDENHAM NSW 2745	770	52	36	29	26	43	35	40	44	38	42	32	32	36	37			
51924	NCA10	RES	771	9 WOODHALL PL, LUDDENHAM NSW 2745	771	52	39	32	29	45	37	42	46	40	42	32	33	36	37			
51940	NCA10	RES	772	9 WOODHALL PL, LUDDENHAM NSW 2745	772	52	39	32	29	43	35	40	44	38	40	30	30	34	35			