

CONSTRUCTION NOISE AND VIBRATION MANAGEMENT PLAN

Moorebank Precinct East Stage 2

18 AUGUST 2022

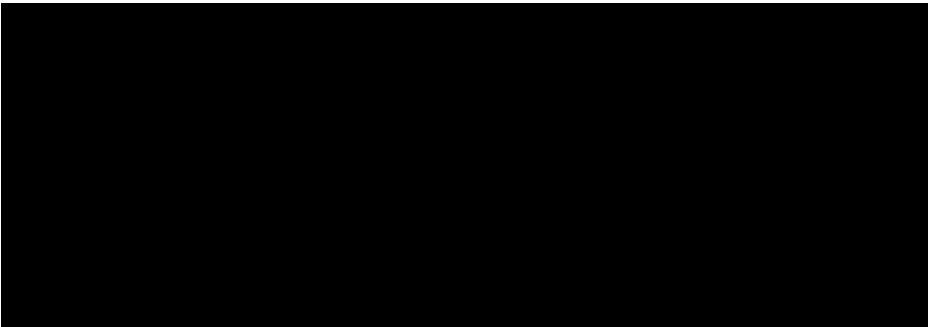
SYDNEY INTERMODAL TERMINAL ALLIANCE MOOREBANK PRECINCT EAST STAGE 2

Construction Noise and Vibration Management Plan

Current Revision Author

Checker

Approver



Report No

SSS2-QPMS-EN

Date

APP-00029 18/08/2022

Revision Text

017

Original Author Details

Original Author Details	Qualifications and Experience
[Redacted]	

REVISIONS

Revision	Date	Description	Prepared by	Approved by
001	12/02/2018	First draft issued to Tactical	█	█
002	26/02/2018	Environmental Representative comments addressed	█	█
003	02/03/2018	Additional ER comments addressed	█	█
004	04/05/2018	DP&E comments addressed	█	█

Revision	Date	Description	Prepared by	Approved by
005	08/06/2018	Second round of minor DP&E comments addressed	█	█
006	27/09/18	Updates to reflect issue of Moorebank Precinct EPL and RfMA 002	█	█
007	23/05/19	Updated with MPW Commonwealth Approvals relevant to Moorebank Avenue upgrade works	█	█
008	31/07/19	Updates to address DotEE comments in response to compliance with EPBC 2011/6086	█	█
009	06/08/19	Updates to address additional DotEE comments	█	█
010	25/10/19	<p>Minor updates associated with:</p> <ul style="list-style-type: none"> • RfMA 02A - Additional construction compounds to support warehouse construction • RfMA 07 – Update to compliance and non-compliance definitions and inclusion of cumulative impacts required by EPBC CoA (2011/6029) • RfMA 008 – MAUW construction compound • RfMA 011 – OOHW Protocol • RfMA 012 – Additional temporary construction access points • RfMA 014 – Suitable spoil importation • RfMA 015 – Moorebank Precinct EPL • RfMA 019 – Clarification of definitions for Early Works and Construction Phase A activities • RfMA 021 – New parking area • RfMA 024 – MPW EPBC (2011/6086) and MPE EPBC (2011/9229) approval requirements for DotEE review and approval 	█	█
011	21/11/19	Update to address ER comments, removal of Construction Phase A updates associated with RfMA 019 and minor updates associated with RfMA 016 – Temporary access time extension.	█	█
012	22/11/19	Minor updates associated with RfMA 026 – Helicopter assisted installation	█	█
013	20/12/19	Updates to address ER comments on Rev 11 and Rev12, and the approved CTAMP-B	█	█
014	16/01/2020	Updated to address ER comments	█	█
015	30/10/2020	<p>Updates associated with:</p> <ul style="list-style-type: none"> • RfMA-018 – MAUW boundary change • RfMA-028 – MAUW/MADR stockpile areas • SSD 7628-Mod 2 approval 	█	█

Revision	Date	Description	Prepared by	Approved by
		<ul style="list-style-type: none"> Periodic review of management plans - OOHW request approval 		
016	19/03/2021	<p>Updates associated with:</p> <ul style="list-style-type: none"> RfMA-039 – Corrections and update to Extended Hours Works Plan, and revision to construction program RfMA-040 – Additional compound for light vehicle parking and break facilities SSD 7268 – MOD3 SSD 7628 – MOD4 	■	■
017	18/08/2022	<p>Updates associated with:</p> <ul style="list-style-type: none"> SSD 7628 – MOD1 WH 6&7 amended layout 	■	■

ACRONYMS AND DEFINITIONS

The following general terms, abbreviations and definitions are used in this plan.

Terms	Explanation
A1055	Standards Australia AS1055–1997™ – Description and Measurement of Environmental Noise
ABL	Assessment Background Level is the single figure background level representing each assessment period – day, evening and night – over each 24-hour period of monitoring. The ABL is determined by the tenth percentile method as prescribed in EPA policies.
Adverse weather	Weather effects that enhance noise (wind and temperature inversions) that occur at a site for a significant period of time (wind occurring more than 30% of the time in any assessment period in any season and/or temperature inversions occurring more than 30% of nights in winter).
Ambient noise	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
AMMM	Additional Mitigation Measures Matrix
ANZECC	Australian and New Zealand Environment Conservation Council
AS2436	Standards Australia AS 2436–2010™ – Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites.
AS61672 or AS1259	Standards Australia AS IEC 61672.1–2004™ – Electro Acoustics - Sound Level Meters Specifications Monitoring or Standards Australia AS1259.2-1990™ – Acoustics – Sound Level Meters – Integrating/Averaging as appropriate to the device.
Assessment period	The period in a day over which assessments are made.
Assessment point	A point at which noise measurements are taken or estimated.
Background noise	Background noise is the term used to describe the underlying noise level present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level metre and is measured statistically as the A-weighted noise level exceeded for 90% of a sample period. This is represented as the L90 noise level (see below).
BS 7385	British Standard BS7385: Part 2-1993 - Evaluation and Measurement for Vibration in Buildings — Part 2 – Guide to Damage Levels from Ground-borne Vibration, dated 1993.
CEMP	Construction Environmental Management Plan
CMM	Commonwealth Mitigation Measures
CNS	NSW Government – Transport for NSW Construction Noise Strategy (CNS), April 2013.
CNVIS	Construction Noise and Vibration Impact Statement
CNVMP	Construction Noise and Vibration Management Plan
CoC	Conditions of Consent
Contractor	Principal Contractor
Contractor's CLM	Contractor's Community Liaison Manager
Contractor's EM	Contractor's Environmental Manager
CPCoA	Concept Plan Conditions of Approval
CPCoC	Concept Plan Conditions of Approval
CTTAMP	Construction Traffic, Transport and Access Management Plan

Terms	Explanation
dBA	A-weighted decibels. The ear is not as effective in hearing low frequency sounds as it is hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the 'A' filter. A sound level measured with this filter switched on is denoted as dBA. Practically all noise is measured using the A filter.
DECC	Department of Environment and Climate Change (now EPA (see below))
Decibel [dB]	The unit that sound is measured in. The following are examples of the decibel readings of everyday sounds: <ul style="list-style-type: none"> • 0dB Faintest sound we can hear • 30dB Quiet library or location in the country • 45dB Typical office space. Ambience in the city at night • 60dB CBD mall at lunchtime • 70dB Sound of a car passing on the street • 80dB Loud music played at home • 90dB Sound of a truck passing on the street • 100dB Sound of a rock band • 115dB Limit of sound permitted in industry • 120dB Deafening
DIN4150:3	German Institute for Standardisation – DIN 4150 (1999-02) Part 3 – Structural Vibration - Effects of Vibration on Structures.
DNSDC	Defence National Storage and Distribution Centre
DoF	Department of Finance
DP&E	Department of Planning and Environment (now DPIE)
DPIE	Department of Planning, Industry and Environment (formerly DP&E)
EHW	Extended Hours Works. EHW for the project are available through the development of an EHW Plan (Appendix B). The EHW are defined in CoC B69 as: <ul style="list-style-type: none"> • Early Works and Construction (not including high noise impact, piling, spoil placement, rock breaking, concrete batching) and relate to the following hours: <ul style="list-style-type: none"> – 6am to 7am, Monday – Friday – 6pm to 10pm, Monday – Friday – 1pm to 5pm, Saturday
EIS	Environmental Impact Statement
EMS	Environmental Management System
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
ER	Environmental Representative
ERAP	Environmental Risk Action Plan
ERM	Environmental Resources Management Australia Pty Ltd

Terms	Explanation
EWB	Early Works Brief
FCMM	Final Compilation of Mitigation Measures
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 (Hz).
High Noise Activity	Means jack hammering, rock or hammering, pile driving, vibratory rolling, cutting of pavement, concrete or steel or other work occurring on the surface that generates noise with impulsive, intermittent, tonal or low frequency characteristics.
ICNG	NSW Department of Environment and Climate Change – NSW Interim Construction Noise Guideline, July 2009.
IEC60942	Standards Australia AS/IEC 60942:2004/IEC 60942:2003 – Australian Standard™ – Electroacoustic – Sound Calibrators.
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.
INP	NSW Environment Protection Agency, Industrial Noise Policy, 2000
Intermittent	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 ₁	The sound pressure level that is exceeded for 1% of the time for which the sound is measured.
L ₁₀	The sound pressure level that is exceeded for 10% of the time for which the sound is measured.
L _{A90}	Background Noise Level. The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
L _{Aeq}	Equivalent Continuous Sound Level. The 'equivalent noise level' is the summation of noise events and integrated over a selected period of time.
L _{Aeq,15min}	Equivalent Continuous Sound Level, over a period of 15 minutes
LGA	Local Government Area
L _{min}	The minimum sound pressure level measured over a given period.
L _p or SPL	Sound Pressure Level
L _w or SWL	Sound Power Level
MAUW	Moorebank Avenue Upgrade Works
Minister, the	NSW Minister for Planning
mm/s	Millimetres per second
Moorebank Precinct	Refers to the whole Moorebank intermodal precinct, i.e. the MPE site and the MPW site.
MPE	Moorebank Precinct East
MPW	Moorebank Precinct West
NCA	Noise Catchment Area
NML	Noise Management Level
NPI	NSW Environment Protection Authority – NSW Environmental Noise Management – Noise Policy for Industry, 2017 and relevant application notes.

Terms	Explanation
Non-compliance	An occurrence, set of circumstances, or development that results in a non-compliance or is non-compliant with Development Consent SSD 7628 Conditions of Consent or EPBC Act Approval (EPBC 2011/6229) Conditions of Approval but is not an incident
Non-conformance	Observations or actions that are not in strict accordance with the CEMP and the aspect specific sub-plan
NSW Vibration Guideline, the	NSW Department of Environment and Conservation – NSW Environmental Noise Management – Assessing Vibration: a Technical Guideline (the NSW Vibration Guideline), February 2006.
NVIA	Noise and Vibration Impact Assessment
OOHW	Out of Hours Works. Works that are not captured within standard construction hours or approved under the EHW Plan.
POEO Act	Protection of the Environment Operations Act 1997
Project (the), MPE Stage 2 Project	Stage 2 of the MPE Concept Approval (MP 10_0193) approved as the MPE Stage 2 Project (SSD 7628), and the SSD 7628-Mod 2, SSD 7628-Mod 3 and SSD 7628-Mod 4 approvals. It involves the construction and operation of warehousing and distribution facilities on the MPE site and upgrades to approximately 2.1 kilometres of Moorebank Avenue.
Project site / Project footprint	The subject of the MPE Stage 2 EIS, the part of the MPE site which includes all areas to be disturbed by the Project (including the operational area and construction area).
RBL	Rating Background Level, is the overall single figure background noise level representing each assessment period – day, evening and night – over the whole monitoring period. The RBL is determined by taking the median of the assessment background levels (ABLs) for each day, evening and night period (see ABL for definition), as set out in EPA policies.
REMM	Revised Environmental Management Measure
RNP	NSW Department of Environment, Climate Change and Water – NSW Road Noise Policy, March 2011.
RSoC	Revised Statement of Commitments
SIMTA	Sydney Intermodal Terminal Alliance
SME	School of Military Engineering
SSD	State Significant Development
Stage 1 site	The subject of this CNVMP includes all work areas of the Stage 1 Proposal (including the Operational area and Indicative Construction area). This area does not include the Rail Corridor.
Suitably qualified/experienced person	A person who has formal qualifications and/or relevant experience and competency to perform a particular task.
the Project	Stage 1, Package 2 of the Moorebank Intermodal Terminal Development
VDV	Vibration Dose Value (in $m/s^{1.75}$)

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1 BACKGROUND

The Sydney Intermodal Terminal Alliance (SIMTA) received approval for the construction and operation of Stage 2 of the Moorebank Precinct East (MPE) Project (SSD 7628), which comprises the second stage of development under the MPE Concept Consent (MP10_0193). SSD 7628 has been subject to the following modification applications:

- MPE Stage 2 Modification 2 (SSD 7628-Mod 2) application, which was approved on 31 January 2020;
- MPE Stage 2 Modification 3 (SSD 7628-Mod 3) application, which was approved on 18 December 2020; and
- MPE Stage 2 Modification 4 (SSD 7628-Mod 4) application, which was approved on 19 January 2021.
- MPE Stage 2 Modification 1 (SSD 7608-Mod 1) application, which was approved on 14 March 2022.

This Construction Noise and Vibration Management Plan (CNVMP) has been developed to manage noise and vibration impacts during the construction phase of Stage 2 of the Moorebank Precinct East (MPE) Project (hereafter, 'the Project').

Within this plan, a strategy has been established to demonstrate the Construction Contractor's approach to the management of noise and vibration impacts. This CNVMP addresses the relevant requirements of the Project Approvals, including the Environmental Impact Statement (EIS), Response to Submissions (RtS) and Minister's Conditions of Consent (CoCs), and all applicable guidelines and standards specific to the management of noise and vibration during construction phases of the Project.

1.1 Introduction

The MPE site, including the Project site, is located approximately 27 kilometres (km) south-west of the Sydney Central Business District (CBD) and approximately 26 km west of Port Botany and includes the former Defence National Storage and Distribution Centre (DNSDC) site. The MPE site is situated within the Liverpool Local Government Area (LGA), in Sydney's South West subregion, approximately 2.5 km from the Liverpool City Centre.

The Project involves the development of an intermodal facility including warehouse and distribution facilities, freight village (ancillary site and operational services), stormwater, landscaping, servicing and associated works on the eastern side of Moorebank Avenue, Moorebank

Stage 2 of the Project involves the construction and operation of warehousing and distribution facilities on the MPE site and upgrades to approximately 2.1 km of Moorebank Avenue.

Key components of the Project include:

- Earthworks including the importation of 600,000m³ of fill and vegetation clearing
- Importation, stockpiling and placement of up to 250,000 m³ of suitable spoil (separate to the 600,000 m³ of imported clean general fill permitted for bulk earthworks)
- Approximately 300,000m² GFA of warehousing and ancillary offices
- Freight village, 8,000m² GFA of ancillary retail, commercial and light industrial land uses
- Warehouse fit-out
- Internal road network and hardstand across the site
- Ancillary supporting infrastructure within the site, including:
 - Stormwater, drainage and flooding infrastructure
 - Utilities relocation/installation
 - Fencing, signage, lighting, remediation, and landscaping
- An upgrade to Moorebank Avenue comprising the following key components:
 - Raising by about two metres and some widening
 - Embankments and tie-ins to existing Moorebank Avenue road levels
 - Signalling and intersection works

- Upgrading existing intersections along Moorebank Avenue, including:
 - Moorebank Avenue / MPE Stage 2 access
 - Moorebank Avenue / MPE Stage 1 northern access
 - Moorebank Avenue / MPE Stage 2 central access
 - Moorebank Precinct West (MPW) Southern Access/MPE Stage 2 southern emergency access.

The site location of is shown in Figure 1-1.

Construction Noise and Vibration Management Plan

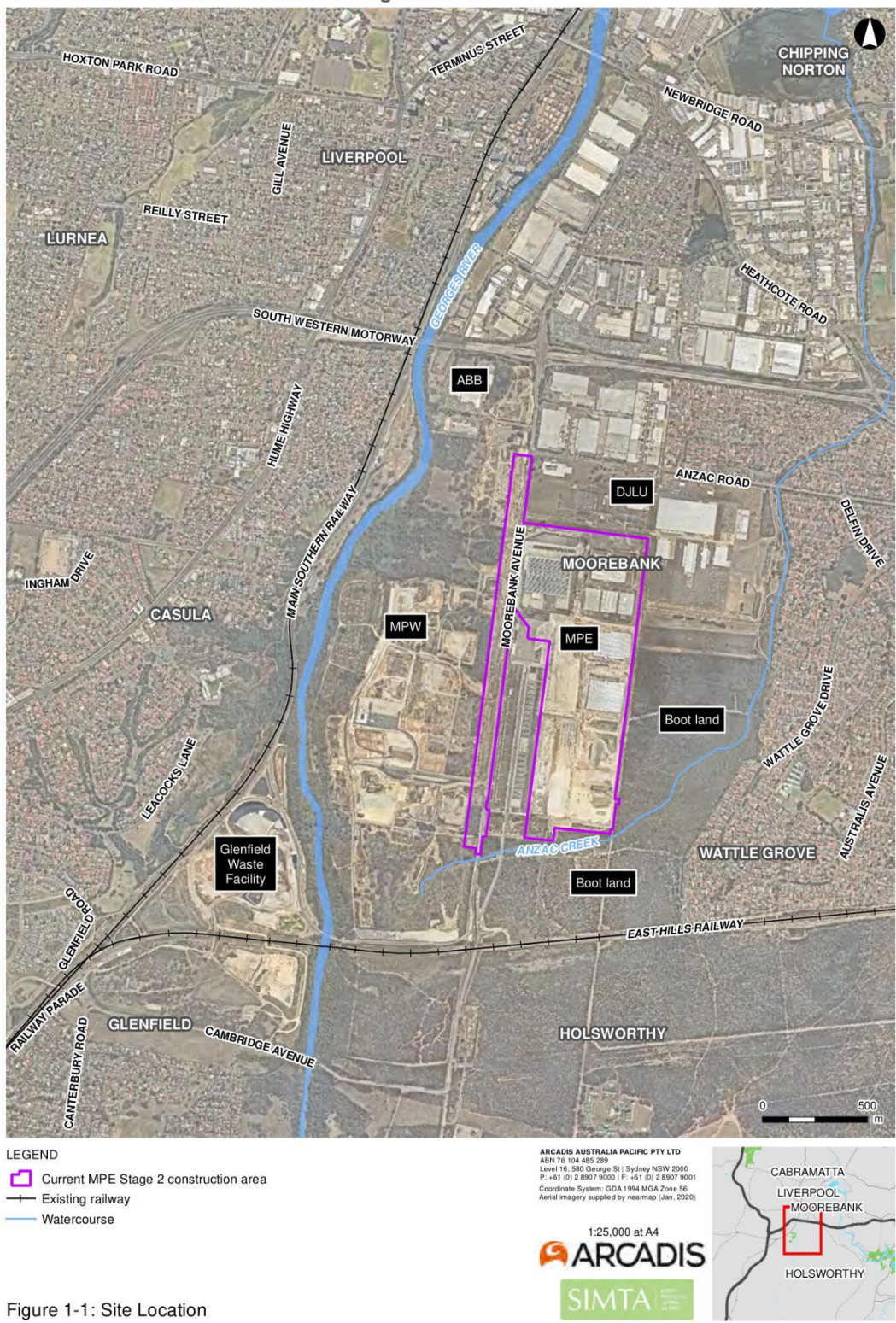


Figure 1-1: Site Location

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Figure 1-1 Site Location

1.2 Development Consent

The MPE Stage 2 Project has been assessed by the DP&E under Part 4.1 (now Division 4.7 as of 1 March 2018) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as State Significant Development (SSD). The Planning Assessment Commission (PAC) granted Approval for the MPE Stage 2 Project on 31 January 2018 and is subject to the Minister's CoCs (SSD 7628). The Project has been subsequently modified and approved under Modification 2 (SSD 7628-Mod 2) on 31 January 2020. The Project, including its potential impacts, consultation and proposed mitigation and management, is documented in the following suite of documents:

- State Significant Development (SSD) Approval SSD 7628, as modified
- Moorebank Precinct East – Stage 2 – Environmental Impact Statement (Arcadis Australia Pacific Pty Limited, December 2016)
- Moorebank Precinct East – Stage 2 – Response to Submissions (Arcadis Australia Pacific Pty Limited, July 2017)
- Consolidated assessment clarification responses issued on 10 November 2017.
- Moorebank Precinct East – Stage 2 (Modification 2) – Environmental Impact Statement SSD 7628-Mod 2 (Aspect Environmental Pty Limited, July 2019)
- Moorebank Precinct East – Stage 2 (Modification 2) – Response to Submissions SSD 7628-Mod 2 (Aspect Environmental Pty Limited, September 2019)
- Moorebank Precinct East – Stage 2 (Modification 3) – Environmental Impact Statement SSD 7628-Mod 3 (Aspect Environmental Pty Limited, June 2020)
- Moorebank Precinct East – Stage 2 (Modification 3) – Response to Submissions SSD 7628-Mod 3 (Aspect Environmental Pty Limited, August 2020)
- Moorebank Precinct East – Stage 2 (Modification 4) – Environmental Impact Statement SSD 7628-Mod 4 (Aspect Environmental Pty Limited, October 2020)
- MPE *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Approval (No. 2011/6229) granted on March 2014.
- MPW *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Approval (No. 2011/6086) granted on September 2016 (for Moorebank Avenue Upgrade Works only)
- Moorebank Precinct East – Stage 2 (Modification 1) – Environmental Impact Statement SSD 7628-Mod 1 (Aspect Environmental Pty Limited, September 2018)
- Moorebank Precinct East – Stage 2 (Modification 1) – Response to Submissions SSD 7628-Mod 1 (Aspect Environmental Pty Limited, April 2019)

1.3 Project Delivery Phases

The Project construction period is anticipated to be up to five years, which will be generally divided into three works phases, as detailed in the following sections.

The terminology for the project phases or periods has developed from the preparation of the EIS and RtS documentation in response to the requirements of the CoCs and the need to stage the delivery of the environmental management documentation required by the CoC. Current terminology, and the equivalent terminology from the CoC and RtS are included in Table 1.

Table 1 Project Delivery Phase Terminology

Project Delivery Phase	CoC A18 Phase Equivalent	MPE Stage 2 RtS Works Period Equivalent
Early Works	Early works	Works Period A: Pre-construction
	Fill importation (to 60,000m ³)	Works Period B: Site preparation
Construction Phase A	Fill importation	Works Period B: Site preparation
	Construction	Works Period E: Bulk earthworks, drainage and utilities

Project Delivery Phase	CoC A18 Phase Equivalent	MPE Stage 2 RtS Works Period Equivalent
		<p>Works Period F: Construction and internal fit out of warehousing</p> <p>Works Period G: Miscellaneous construction works</p>
Construction Phase B	<p>Fill importation</p> <p>Construction</p>	<p>Works Period C: Construction of Moorebank Avenue Diversion Road</p> <p>Works Period D: Pavement and intersection works along Moorebank Avenue</p> <p>Works Period E: Bulk earthworks, drainage and utilities</p>

1.3.1 Early Works

Early Works is generally described as site preparatory works including utilities adjustments and relocations, clearing and stripping of topsoil (top 100mm of topsoil), heritage salvage and fill importation (including VENM and ENM, up to 60,000m³), establishment of site access, temporary fencing and compound establishment, asbestos and hazardous material removal and preparation of buildings for demolition.

The Early Works includes but is not limited to:

- Geotechnical and utilities investigation works including potholing to confirm the location of existing services, disconnection of non-critical services (with retention in place), grout filling of disconnected draining lines, adjustment and relocation where applicable.
- Clearing of non-native vegetation, stripping of topsoil and stockpiling of topsoil on site for later re-use within site landscaping
- Stabilisation of areas where topsoil has been stripped with imported clean hard fill or by other methods determined by the Environmental Representative to have minimal environmental impact
- Removal of asbestos from heating equipment and fire resistant building elements (e.g. fire doors) by a licenced asbestos removalist followed by clearance by a certified occupational hygienist
- Hazardous material cleaning and decontamination in Buildings 67, 69, 81 and 83
- Heritage salvage works in Buildings 37, 75 and 80 on the Project site to recover architectural elements for adaptive re-use
- Importation, stockpiling and placement of up to 60,000 m³ (not exceeding a total of 22,000 m³ of material per day) of imported clean general fill material by truck-and-dog and / or semi-trailer
- Establishment of a site access point at the existing MPE site northern access and construction of associated access road, utilising existing paved areas with minor pavement extensions as required, to provide for access and manoeuvrability of vehicles into and through the site in accordance with CoC B10
- Establishment of temporary site fencing, a site compound(s) and temporary car parking areas to support Early Works and construction of the Project in accordance with CoC B10, B11 and B12
- Other activities determined by the Environmental Representative to have minimal environmental impact.

Any of the activities defined in SSD Approval 7628 as ‘Early Works’ may be undertaken during the Early Works. All works during Early Works will be undertaken in accordance with the Early Works Management Plan (EWEMP) and required sub-plans.

Upon the commencement of construction, the Project’s CEMP will supersede the EWEMP.

1.3.2 Construction Works Phase A (excluding Moorebank Avenue Upgrade Works)

Construction Works Phase A will include all works described in Early Works in addition to bulk earthworks, drainage and utilities, construction and internal fit-out of warehousing and finishing works.

Construction Works Phase A excludes Moorebank Avenue works described in Section 1.3.3 below.

Construction Works Phase A includes, but is not limited to:

Completion of Site Preparation Activities

- Demolition of existing structures
- Clearing of remaining vegetation
- Adjusting the building formation of the site (to final operational levels) within which the Warehousing Compound will be located
- Establishment of temporary batch plant and materials crushing plant

Bulk Earthworks, Drainage and Utilities

- Importation, stockpiling and placement of up to a total of 600,000 m³ (not exceeding a total of 22,000 m³ of material per day) of imported clean general fill for bulk earthworks, including material imported as part of Early Works.
- Importation, stockpiling and placement of up to 250,000 m³ of suitable spoil (separate to the 600,000 m³ of imported clean general fill permitted for bulk earthworks)
- Installation of on-site detention (OSD) and drainage infrastructure within the MPE Stage 2 site
- Construction of retaining walls
- Creation of internal road formation by general earthworks (by constructing fill embankments)
- Bulk earthworks and adjusting the building formation of the Project site to final level, including the terminal hardstand
- Utilities relocation and installation
- Establishment of hardstand areas.

Construction and Internal Fit-out of Warehousing

- Foundation and floor slab installation
- Erection of framework and structural walls
- Installation of roof
- Internal fit-out of warehouses (racking and associated services).

Miscellaneous construction and finishing works

- Pavement construction (internal transfer roads and perimeter road), including forming of new kerbs, gutters, medians (where required) and other structures
- Line marking, lighting and sign posting
- Installation of road furniture, including traffic signs and pavement markers.
- Miscellaneous structural construction
- Finishing works, including landscaping and general site rehabilitation, where required
- Commissioning of the Project
- Decommissioning/demobilisation of the Project site, including removal of construction compound(s) and temporary construction environmental controls.

1.3.3 Construction Works Phase B (all Construction activities)

Construction Works Phase B will include all works described in Early Works Phase and Construction Works Phase A, in addition to the Moorebank Avenue upgrade works. Generally, the Moorebank Avenue upgrade works are described as construction of the Moorebank Avenue Diversion Road, bulk earthworks, drainage and utilities, and pavement works.

Construction Works Phase B includes, but is not limited to:

Construction of the Moorebank Avenue Diversion Road

- Stripping of topsoil within footprint of temporary diversion road
- Installation of temporary drainage
- Placement of fill and temporary road pavement (e.g. gravel)
- Construction of interface between temporary diversion road and existing Moorebank Avenue
- Installation of temporary road signage, street lighting and signalling

- Transfer of traffic onto temporary diversion road from Moorebank Avenue.

Bulk Earthworks, Drainage and Utilities

- Removal of existing pavement and stripping of topsoil within Moorebank Avenue
- Importation, stockpiling and placement of remainder of approximately 600,000 m³ (not exceeding a total of 22,000 m³ of material per day) of imported clean general fill for bulk earthworks
- Importation, stockpiling and placement of up to 250,000 m³ of suitable spoil (separate to the 600,000 m³ of imported clean general fill permitted for bulk earthworks)
- Creation of a road formation for Moorebank Ave and the Moorebank Ave Diversion Road by general earthworks (by constructing fill embankments)
- Utilities relocation and installation

Pavement works along Moorebank Avenue

- Placement of select layer of earthworks material on top of the road formation
- Placing and compacting the pavement later (concrete, or concrete and asphalt) over the select layer (consisting of a sub-base and base) and potential sealing with bitumen
- Traffic switching from diversion road onto final, upgraded Moorebank Avenue
- Removal of construction traffic management and progressive opening of the internal road and warehouse access roads to traffic
- Removal of road surface, road signage, street lighting and signalling from temporary diversion road
- Commissioning of Moorebank Avenue.

1.3.4 Construction Program

Construction of the Project is proposed to take up to five years, commencing in the first quarter of 2018. The final construction program will depend on the market demand for warehouses to be constructed on the MPE Stage 2 site.

The indicative construction program is shown in Table 2. The delivery phases are interrelated and overlap; the order of staging may alter slightly based on detailed construction contractor staging. Works will be undertaken progressively in different areas of the Project site. Some warehouses may be operational, prior to completion of construction in other areas of the site.

Table 2 Indicative Construction Program

Construction works period		2018				2019				2020				2021				2022				2023			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
Early Works	Pre-construction Activities																								
	Site Preparation Activities																								
Construction Phase A	Completion of Site Preparation Activities																								
	Bulk earthworks, drainage and utilities																								
	Construction and internal fit-out of warehousing																								
	Miscellaneous construction and finishing works																								
Construction Phase B	Bulk earthworks, drainage and utilities																								
	Construction of the Moorebank Avenue Diversion Road																								
	Pavement and intersection works along Moorebank Avenue																								

1.3.5 Construction Hours

Construction hours are divided into three scenarios:

1. Standard construction hours
2. Extended Hours Works (EHW)
3. Out of Hours Works (OOHW)

The standard construction hours for the Project (subject to different hours being permitted or required under an Environment Protection Licence (EPL)) are defined by CoC B65 as:

- Early Works and Construction:
 - 7am to 6pm, Monday – Friday
 - 7am to 1pm, Saturday
- Moorebank Avenue upgrade:
 - 7am to 6pm, Monday – Friday
 - 7am to 1pm, Saturday

EHW for the project are available through the development of an EHW Plan (Appendix B). The EHW are defined in CoC B69 as:

- Early Works and Construction (**not including high noise impact, piling, spoil placement, rock breaking, concrete batching**) and relate to the following hours:
 - 6am to 7am, Monday – Friday
 - 6pm to 10pm, Monday – Friday
 - 1pm to 5pm, Saturday

Works that are not captured within standard construction hours or approved under the EHW Plan may be undertaken through the Out of Hours Work Protocol (Appendix A) developed in accordance with CoC B67.

Table 3 Depiction of Construction Hours

Day/Time	12 am-1 am	1 am-2 am	2 am-3 am	3 am-4 am	4 am-5 am	5 am-6 am	6 am-7 am	7 am-8 am	8 am-9 am	9 am-10 am	10am-11am	11am-12pm	12 pm-1 pm	1 pm-2 pm	2 pm-3 pm	3 pm-4 pm	4 pm-5 pm	5 pm-6 pm	6 pm-7 pm	7 pm-8 pm	8 pm-9 pm	9 pm-10 pm	10pm-11pm	11pm-12am
Mon	Red	Red	Red	Red	Red	Red	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Red
Tue	Red	Red	Red	Red	Red	Red	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Red
Wed	Red	Red	Red	Red	Red	Red	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Red
Thur	Red	Red	Red	Red	Red	Red	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Red
Fri	Red	Red	Red	Red	Red	Red	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Red
Sat	Red	Red	Red	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Red	Red	Red	Red
Sun or Public Holiday	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red

Note: Red – OOHW, Yellow – EHW, Green – Standard construction hours.

The OOHW work (OOHW) construction period is divided further into the periods detailed in Table 4. Additional OOHW periods may be determined during the construction process, however any works will be subject to the OOHW Protocol.

Table 4 OOHW Periods

OOHW Period	Time	Day
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OOH Period 1	6.00am – 7.00am	Monday- Friday*
OOH Period 2	6.00pm – 10.00pm	Monday- Friday**
OOH Period 3	7.00am – 8.00am	Saturday
OOH Period 4	1.00pm – 5.00pm	Saturday***

*Referred to as EHW Period 1

** Referred to as EHW Period 2

*** Referred to as EHW Period 3

1.4 Purpose and Application

This CNVMP has been developed to address the CoCs and the FCMM’s and is based on the noise and vibration impact assessment presented in the EIS, prepared by Wilkinson Murray (WM Report No. 12186-S2 Version C, dated November 2016). This plan aims to demonstrate how noise and vibration impacts will be managed during the construction phase of the Project.

This plan provides methods to measure and reduce the noise and vibration impacts by the contractor during construction activities, including all contractor and consultant partners.

The specific requirements of the CoCs for compilation of the CNVMP, as specified in the CoCs and FCMMs are specified in Section 2.1.1 of this plan.

The most recent, approved version of this plan will be implemented to manage the Project activities.

1.5 Objectives and Targets

Table 5 outlines the objectives and targets for the Project for the management of noise and vibration impacts during construction.

Table 5 Objectives and Targets

Objective	Target	Timeframe	Accountability
Ensure construction noise and vibration impacts on community, commercial stakeholders and structures are minimised	100% compliance with approved hours of work. No exceedances of noise or vibration criteria. No structural or cosmetic damage to nearby buildings or structures due to vibration relating to works.	Duration of Early Works and Construction	Contractor’s CM
Ensure compliance with relevant CoCs, applicable legislative and other requirements	No written warnings or infringement notices	Duration of Early Works and Construction	Environmental Manager (Contractor’s EM)
Ensure that reasonable and feasible mitigation measures are implemented to manage impacts on surrounding residents and commercial stakeholders	No exceedances of noise or vibration criteria	Duration of Early Works and Construction	Environmental Manager (Contractor’s EM)
Ensure that affected residents and other stakeholders are kept informed of upcoming works, extended hours, out of hours works (if required) and mitigation measures	No validated complaints from the community regarding noise or vibration.	Duration of Early Works and Construction	Contractor’s Community Liaison Manager (Contractor’s CLM)
Avoid the exceedance of construction phase noise goals/criteria	Zero incidents of noise goal/criteria being exceeded	Construction	Contractor’s CM

Objective	Target	Timeframe	Accountability
	during the construction phase		
Avoid the exceedance of construction phase vibration goals/criteria	Zero incidents of vibration goals/criteria being exceeded during the construction phase	Construction	Contractor's CM

1.6 Consultation

This CNVMP has been prepared in consultation with the NSW EPA as outlined in Table 6. Supplementary information to support the consultation undertaken is included in Appendix C.

Table 6 Consultation Summary

Agency	Date	Person contacted	Comment	Status
NSW EPA	First contacted 5 March 2018	EPA Representative	Request for consultation	Ongoing
	12 March 2018	SIMTA	EPA contacted SIMTA stating that they will not provide comment on the CNVMP.	Complete
	19 March 2018	EPA Representative	EPA contacted to confirm that they will not be providing further comment	Closed

2 ENVIRONMENTAL MANAGEMENT

2.1 Legal and Other Obligations

Table 7 details the legislation, planning instruments and guidelines considered during development of this strategy.

Table 7 Legislation, Policy, Standards and Guidelines

Legislation	Description	Relevance to this CNVMP
<i>Environmental Planning and Assessment Act 1979</i>	Establishes a system of environmental planning and assessment of development proposals for the State	The CoC and associated obligations are incorporated into this plan
<i>Protection of the Environment Operations Act 1997</i>	Aims to achieve the protection, restoration and enhancement of the quality of the NSW environment	All plant will be operated in a proper and efficient manner such that noise is minimised during construction.
<i>Interim Construction Noise Guideline (ICNG), Department of Environment and Climate Change 2009</i>	Current NSW guideline for the assessment and management of construction noise.	Noise management levels (NMLs) have been established in accordance with this guideline.
<i>NSW Road Noise Policy (RNP), Department of Environment, Climate Change and Water 2011</i>	Defines criteria to be used in assessing the impact of road traffic noise.	Assists the establishment of criteria for construction-related road traffic noise.
<i>Assessing Vibration – a technical guideline (AVTG), Department of Environment and Conservation 2006</i>	Based on BS6472–1992, Evaluation of human exposure to vibration in buildings. Presents preferred and maximum vibration values for use in assessing human responses to vibration and provides recommendations for measurement and evaluation techniques	Used for the assessment of vibration (disturbance to building occupants). CoC B72(b) requires the vibration criteria to be met.
Australian Standard AS/NZS 2107:2000 Acoustics – Recommended design sound levels and reverberation times for building interiors	Recommends design criteria for conditions affecting the acoustic environment within occupied spaces.	Supporting technical standard.
Australian Standard AS2436-1981 Guide to Noise Control on Construction, Maintenance and Demolition Sites	Provides guidance for noise control on construction, maintenance and demolition sites.	Supporting technical standard.
German Standard DIN4150-2016 Structural vibration Part 3: Effects of vibration on structures	Used for the assessment of vibration (structural damage to buried services)	Supporting technical standard. CoC B72(c) requires the vibration limits to be observed.
NSW Industrial Noise Policy (INP), Environment Protection Agency 2000	Directed towards industry, acoustic practitioners and consent authorities that require a degree of technical detail to assess impacts properly and develop mitigation methods	Supporting technical standard CoC B62 requires use in developing RBLs for closest sensitive receivers

2.1.1 Requirements of the ICNG

The aim of the ICNG is to provide guidance on managing construction works to minimise noise, with an emphasis on communication and cooperation with all involved in, or affected by, construction noise.

The ICNG states there is no single approach to minimise noise from all types of construction. The level of effort and sophistication needed to assess impacts and identify ways to minimise noise will be guided by factors such as the duration of works and the extent of the noise. Noise levels that meet Noise Management Levels, short-term works or low noise level works will be typically easier to assess and manage.

Section 1.5 of the ICNG identifies the key steps for managing noise impacts from construction. These steps are outlined in Table 8 with references to where in this CNVMP the requirements have been addressed.

Table 8 ICNG Key Requirements

Requirement	Reference	How Addressed
Identify sensitive land uses that may be affected.	Section 3.1.1	Residential and non-residential receivers most potentially affected by noise from the construction of the Project have been specified.
Identify hours for the proposed construction works.	Section 1.3.5	A number of periods have been specified where construction works are proposed for the Project.
Identify noise impacts at sensitive land uses.	Section 3.1.2	Background noise levels established at residential receivers for the development of NML.
	Section 3.2.1.1	NML established for residential and non-residential land use.
	Section 0	Construction plant items and noise levels established for a number of scenarios. Noise levels at sensitive receivers predicted and compared to NML.
Select and apply the best work practices to minimise noise impacts.	Section 3.4	Management measures have been specified and developed in consideration of the ICNG, Development Consent and Final Compilation of Mitigation Measures from the RtS.

2.1.2 Compliance Matrices

2.1.2.1 State Approvals

The Project is being delivered under Part 4, Division 4.1 (now Division 4.7 as of 1 March 2018) of the EP&A Act. The CoCs include requirements to be addressed in this plan and delivered during the Project. These requirements and how they are addressed is provided within Table 9.

Table 9 Conditions of Consent

CoC	Requirement	Document Reference	How Addressed
A1	In addition to meeting the specific performance measures and criteria established under this consent all reasonable measures must be implemented to prevent, and if prevention is not reasonable, minimise, any harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.	This plan	Section 3.4 of this CNVMP identifies the management measures to be implemented to prevent and minimise environmental harm. Additional management measures have been included within the Out of Hours protocol in Appendix A Section A.5.
A2	The development may only be carried out: <ul style="list-style-type: none"> a) in compliance with the conditions of this consent; b) in accordance with all written directions of the Secretary in relation to this consent; c) in accordance with the EIS, Submissions Report, Consolidated assessment clarification responses and updated Biodiversity Assessment Report; d) in accordance with the amended Development Layout Plans and Design Plans, amended WSUD plans and amended architectural plans to be submitted for the Secretary’s approval as part of this consent; and in accordance with the management and mitigation measures at APPENDIX B of this consent.	This plan	This CNVMP has been developed to comply with the CoCs, written directions of the Secretary, amended development layout and management and mitigation measures outlined in Appendix B of the CoCs
A20	All licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits, approvals and consents.	CEMP Section 2.5.2 Section 2.1	<p>All applicable licences, permits and approvals will be obtained as required.</p> <p>Approvals, permits and licences required for the Project are discussed in the CEMP in Section 2.5.2.</p> <p>An Environmental Protection Licence (EPL) (No. 21054) was issued by the EPA on 4 June 2018 (variation issued on 18 April 2019). The licence applies to the Moorebank Precinct (excluding the MPE Stage 1 Rail Access Land Package (RALP) which has a separate EPL licence (No. 20966)</p>

CoC	Requirement	Document Reference	How Addressed
			and authorises > 100,000 – 500,000 tonnes crushing, grinding or separating processing capacity per annum and > 500,000 – 2,000,000 tonnes extraction, processing or storage capacity per annum. The licence applies to all other activities carried on at the premises, including road construction, bulk earthworks ‘cut and fill’ and importing fill.
A32	<p>All plant and equipment used at the site or to monitor the performance of the development must be:</p> <ul style="list-style-type: none"> a) maintained in a proper and efficient condition; and b) operated in a proper and efficient manner. 	<p>Section 3.4 Table 38 NV8</p>	All plant and equipment will be maintained and operated in a proper and efficient manner.
B1	<p>The Applicant must:</p> <ul style="list-style-type: none"> a) prepare each plan, program and other documents in consultation with the specified stakeholders; b) not commence each phase of the project until the plans, programs and other documents required under this consent are approved by or, where not required to be approved, submitted to the Secretary specified within the timeframes; and <p>implement the most recent version of the required plans and programs approved by the Secretary for the duration of the development.</p>	Section 1.6	<p>This CNVMP has been prepared in consultation with the EPA.</p> <p>Construction of the Project will not commence until this CNVMP and other plans are approved by the Secretary.</p> <p>A Staging Report has been prepared and approved for Construction Phases A and B.</p> <p>The most recent, approved version of the CNVMP will be implemented.</p>
B62	Prior to early works, the Applicant must undertake noise monitoring in accordance with the INP to verify RBLs for the closest sensitive receivers.	Section 3.1.2	Monitoring conducted and is presented in the Wilkinson Murray 12186-M2 Report VerC, dated January 2018.
B63	Prior to early works and fill importation, the Applicant must submit a Noise Monitoring Report detailing the results of background noise monitoring, any resulting adjustment of NMLs for the development and any additional noise mitigation measures to be included in the CEMP required under condition C1.	Section 3.1.2	<p>Monitoring was conducted and is presented in the Wilkinson Murray 12186-M2 Report VerC, dated January 2018.</p> <p>No additional management measures nor adjustments to the NMLs were required.</p>
B64	Continuous noise monitoring at sensitive receivers must be undertaken during early works, fill importation, construction and for at least 12 months following occupation of the entire site.	Section 4.1.2	Continuous noise monitoring is proposed.
B65	<p>The construction hours detailed in Table 2 must be complied with, except where they may be undertaken under condition B66.</p> <p>Table 2: Hours of Work</p>	<p>Section 1.3.5 Section 3.4; Table 38 NV5</p>	Construction hours to be complied with unless works outside these hours are permitted by other conditions of consent.

CoC	Requirement			Document Reference	How Addressed
	Activity	Day	Time		
	Early works and Construction	Monday – Friday	7am to 6pm		
		Saturday	7am to 1pm		
	Moorebank Avenue upgrade	Monday – Friday	7am to 6pm		
		Saturday	7am to 1pm		
B66	<p>Except as permitted by an EPL, activities resulting in high noise impact (including impulsive or tonal noise emissions) must only be undertaken:</p> <ul style="list-style-type: none"> a) Between the hours of 8:00am to 5:00pm Monday to Friday; b) Between the hours of 8:00am to 1:00pm Saturday; and, c) In continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block. <p><i>Note: For the purposes of this condition, 'continuous' included any period during which there is less than a one hour respite between ceasing and recommencing any of the work that is the subject of this condition.</i></p>			Section 3.4; Table 38 NV6	Addressed by NV6 in Section 3.4
B67	<p>Works may be undertaken outside the hours detailed in Table 2 in the following circumstances:</p> <ul style="list-style-type: none"> a) For the delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons; b) Where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; c) Where different construction hours are permitted or required under an EPL in force in respect of construction, in which case these construction hours must be complied with; <p>Where they are undertaken in accordance with an Out-of-Hours Work Protocol detailing the assessment, management and monitoring of noise as part of the Construction Noise and Vibration Management Plan.</p>			Section 3.3.1.3 and 3.4; Table 38 NV7 Appendix A	Circumstances in which Out-Of-Hours works may be undertaken is explained in Section 3.3.1.3 and Appendix A
B68	<p>The Applicant must prepare an Out-of-Hours Work Protocol for any work undertaken outside the hours specified in condition B65 or outside the circumstances specified under condition B67. An Out-of-Hours Work</p>			Section 4.3	The Out-of-Hours Work Protocol is included in 4.3 and addresses the requirements of CoC 68.

CoC	Requirement	Document Reference	How Addressed
	Protocol must provide for the assessment, management and monitoring of out of hours work, including:		
	a) Where works are shown to be inaudible at the nearest sensitive receivers and vibration levels do not exceed those stipulated by Table 2.2 and Table 2.4 of Assessing Vibration: a technical guide (DEC, 2006);	Table A-1, Number 4	Table A-1, Number 4
	b) Where a negotiated agreement has been arranged with affected receivers;	Table A-1, Numbers 6 and 7	Table A-1, Numbers 6 and 7
	c) Where noise can be shown to satisfy the noise management levels specified in the <i>Interim Construction Noise Guideline</i> (ICNG, DECC, 2009) at non-residential land uses; or,	Table A-1, Number 5	Table A-1, Number 5
	Where works are undertaken as part of an Extended Hours Work Plan approved as part of the Out-of-Hours Work Protocol .	Table A-1, Number 8	Table A-1, Number 8
	An Extended Hours Work Plan will be prepared for any construction undertaken during the extended hours detailed in Table 3 as required by condition B68(d). The Extended Hours Work Plan must provide for:		
B69	a. A three month assessment period, commencing at the start of extended hours construction work;	Section B.5	Continuous noise monitoring results to be reviewed during first week of EHW and monthly thereafter for the three month assessment period, with a final report issued to the Secretary.
	b. Implementation of the Construction Noise and Vibration Management Plan;	CNVMP	This EHWP has been prepared in a manner consistent with the CNVMP and refers to relevant sections of the CNVMP. Any relevant updates to the CNVMP will be incorporated into the EHWP via the EWHP review process.
	c. Noise monitoring at a representative number of sensitive receivers (including closest and furthest) to confirm the predicted noise levels;	Section B.5.2	Monitoring to be conducted per the processes outlined in Section 4.1.2 and Section 4.1.3 of the CNVMP. Additional monitoring location added in NCA3 to confirm the predicted noise levels.
	d. Targeted consultation with the noise affected sensitive receivers;	Section B.6	Consultation with potentially affected receivers included in Section B.6.
	e. Notification of the relevant Council, local residents and other affected stakeholders and sensitive receivers of the timing and duration at least 48 hours prior to the commencement of the works;	Section B.6	Council and stakeholder notification requirements specified in Section B.6.

CoC	Requirement	Document Reference	How Addressed
	f. Construction work timeframes and methods for investigation of noise complaints;	Section B.1.3 Section B.7	EHW periods and duration of works described in Section B.1.3. Complaints handling process outlined in Section B.7.
	g. Submission of monthly complaints reports to the Department for the life of extended hours activities;	Section B.5.4	Reporting processes, outlined in Section B.5.4, to include monthly reports to DP&E.
	h. Continual refinement of mitigation measures based on consultation with the noise affected sensitive receivers;	Section B.4	Review process, outlined in Section B.4, to include consultation with relevant stakeholders.
	i. Implementation of work practices set out in section 5.2 of the ICNG;	Section B.4	Management and mitigation during EHW to be consistent with Section 3.4 of the CNVMP and includes ICNG work practices.
	j. A final summary report submitted to the Secretary at the end of the assessment period in sub-condition (a), detailing the outcomes of the assessment period, the resolution of complaints during the assessment period, and demonstrate the acceptability of works outside standard hours.	Section B.5.4	Reporting processes, outlined in Section B.5.4, to include final report to DP&E.

Table 3: Extended Hours of Work

Activity	Day	Time
Early works and Construction (not including high noise impact, piling, spoil placement, rock breaking, concrete batching).	Monday – Friday	6am to 7am 6pm to 10pm
	Saturday	1pm to 5pm

B70	The Applicant must comply with all written directions of the Secretary arising from the review of the final summary report required under condition B69.	Section B.5.4	The EHWP will be updated in accordance with any recommendations made by DP&E on the summary report. All written directions will be complied with.
B71	Construction must be carried out in accordance with the construction noise management levels and requirements detailed in the <i>ICNG</i> (DECC, 2009).	Section 2.1.1	Section 2.1.1 of this document details the requirements of Section 1.5 of the ICNG, entitled “Applying the Guideline” which shows the high level steps for managing noise from construction. As per the requirements of the ICNG, closest sensitive receivers have been specified, NMLs specified, NMLs compared with predicted noise levels and mitigation select commensurate with the noise impacts (i.e. exceedance of the NML).

CoC	Requirement	Document Reference	How Addressed
			<p>Table 17 identifies the ICNG as a relevant policy that establishes noise and vibration management levels.</p> <p>Table 18 identifies how construction noise management levels from the ICNG are to be applied to residential receivers.</p> <p>Table 33 indicates that predicated $L_{Aeq, 15min}$ will comply with ICNG NMLs at all sensitive receivers.</p> <p>Measures NV12 and NV13 require the implementation of additional noise mitigation where noise management levels are likely to be exceeded.</p>
B72	<p>All reasonable and feasible noise mitigation measures must be implemented in addition to the management and mitigation measures in APPENDIX B with the aim of achieving the following construction Noise Management Levels (NMLs) and vibration criteria:</p>	<p>Section 3.4; Table 38</p>	<p>Table 38 NV12 and NV13 require the implementation of additional noise mitigation where noise management levels are likely to be exceeded.</p> <p>Measure NV10 addresses construction vibration including adherence to safe working distances for vibration intensive plant</p>
	<p>a) Construction noise management levels established using the <i>ICNG</i> (DECC, 2009);</p>	<p>Section 3.2.1.1; Table 18 and Table 19</p>	<p>Section 3.2.1.1, Table 18 identifies how construction noise management levels from the ICNG are to be applied to residential receivers.</p> <p>Table 19 identifies how construction noise management levels from the ICNG are to be applied at other sensitive receivers including educational institutions and industrial premises.</p>
	<p>b) Vibration criteria established using the <i>Assessing Vibration: a technical guide</i> (DECC, 2006) (for human exposure); and,</p>	<p>Section 3.2.2; Table 25 and Table 26</p> <p>Section 3.4; Table 38</p>	<p>Section 3.2.2, Table 25 and Table 26 establishes vibration criteria in line with <i>Assessing Vibration; a technical guideline</i>.</p> <p>Measure NV10 addresses construction vibration including adherence to safe working distances for vibration intensive plant</p>
	<p>c) Vibration limits set out in the German Standard <i>DIN 4150-3: Structural Vibration – effects of vibration on structures</i> (for structural damage).</p>	<p>Section 3.2.2.2; Table 27 and Table 28</p> <p>Section 3.3.6.1; Table 36</p> <p>Section 3.4; Table 38</p>	<p>Section 3.2.2.2; Table 27 and Table 28 establishes recommended vibration limits in line with DIN4150.</p> <p>Section 3.3.6.1, Table 36 establishes safe working distances for damage to buildings in line with vibration limits set out in DIN 4150-3.</p> <p>Measure NV10 addresses construction vibration including adherence to safe working distances for vibration intensive plant</p>

CoC	Requirement	Document Reference	How Addressed
B73	<p>Any construction activities identified as exceeding the construction noise management levels and/or vibration criteria must be managed in accordance with the Construction Noise and Vibration Management Plan (CNVMP) required by condition B76. All feasible and reasonable noise mitigation and management measures must be implemented and any activities that could exceed the construction NMLs must be identified and managed in accordance with the CNVMP.</p> <p><i>Note: the ICNG identifies 'particularly annoying' activities that require the addition of 5 dB(A) to the predicted level before comparing to the construction NML.</i></p>	<p>Section 0; Table 33</p> <p>Section 3.3.5; Table 25</p> <p>Section 3.3.6; Table 26</p> <p>Section 3.4</p>	<p>Assessments of construction activities undertaken in Sections 0, and 3.3.5 indicate that the Project will not exceed identified construction NMLs.</p> <p>Assessments of construction activities undertaken in Section 3.3.6 indicates that the Project will not exceed specified vibration criteria during construction.</p> <p>In the unlikely event that construction activities exceed specified NMLs mitigation measures NV12 and NV13 will be implemented. Section 3.3.6 includes mitigation measures that could be applied in the event that construction activities exceed established vibration criteria.</p>
B74	<p>Where feasible and reasonable, construction traffic movements on public roads should aim to limit any increase in existing road traffic noise levels to no more than 2 dB $L_{Aeq,period}$, where 'period' is defined in the EPA's <i>Road Noise Policy (RNP)</i> for both day and night.</p>	<p>Section 3.2.1.3 and 3.3.5</p> <p>Table 35</p>	<p>Section 3.2.1.3 and 3.3.5, and Table 35 demonstrates that $L_{Aeq,period}$ road traffic noise will not increase by more than 2dB.</p>
B75	<p>The Applicant is to ensure the construction contractor's vehicles operate as to minimise impacts. Measures that could be used include:</p> <p>a) Toolbox talks;</p>	<p>Section 2.3</p> <p>Section 3.4; Table 38</p> <p>NV11</p>	<p>Section 2.3 addresses site-specific induction training that will include toolbox talks being undertaken.</p> <p>NV11 addresses the requirements of this condition.</p>
	<p>b) Contracts that include provisions to deal with unsatisfactory noise performance for the vehicle and/or the operator; and</p>	<p>Section 3.4; Table 38</p> <p>NV11</p>	<p>NV11 addresses the requirements of this condition.</p>
	<p>c) Specifying non-tonal movement alarms in place of reversing beepers or alternative such as reversing cameras and proximity alarms, or a combination of these, where tonal alarms are not mandated by legislation.</p>	<p>Section 2.3</p> <p>Section 3.4; Table 38</p> <p>NV11 and NV8</p>	<p>Section 2.3 addresses site-specific induction training that will include operation of vehicles that use non-tonal reversing beepers.</p> <p>NV8 and NV11 addresses the requirements of this condition.</p>
B76	<p>Use of compression brakes for construction vehicles associated with the project that are on site or on nearby roads is not permitted (e.g. Anzac Avenue).</p>	<p>Section 3.4</p>	<p>Addressed by NV11 in Section 3.4</p>
B77	<p>A Construction Noise and Vibration Management Plan (CNVMP) must be prepared for the development to the satisfaction of the Secretary. The plan must form part of the CEMP required under C1 and detail how construction noise and vibration impacts will be minimised and managed. The Plan must be consistent with</p>	<p>Section 1.6; Appendix C</p> <p>Section 2.1.1 Table 8, Table 17</p> <p>Section 3.2.1.1; Table 18</p>	<p>Section 1.6 and Appendix C provides evidence of consultation with EPA.</p> <p>Table 8, Table 17, Table 18 and Table 33 indicates how the Project is consistent with ICNG guidelines.</p>

CoC	Requirement	Document Reference	How Addressed
	the guidelines contained in the ICNG (DECC, 2009). The plan must be developed in consultation with the EPA and include:	Section 0; Table 33 Section 3.4; Table 38	Section 3.4, Table 38 detail how construction noise and vibration impacts will be minimised and managed.
	a) Identification of the work areas, site compounds and access points;	Figure 3-2	Figure 3-2 s3s site compounds, access points and work areas.
	b) Identification of the type and number of plant and equipment expected on site at the same time;	Section 3.3.3.2; Table 32	Table 32 identifies the types and amount of construction plant and equipment that will be used during each phase of construction.
	c) Identification of sensitive receivers (including heritage structures if relevant) and relevant construction noise and vibration goals applicable to the project as stipulated in condition B71;	Figure 3-1 Section 3.1.1; Table 15 Section 3.2.1.1; Table 18	Figure 3-1 visually identifies the location of sensitive receivers of the Project. Table 15 lists all sensitive receivers of the Project Table 18 demonstrates how ICNG NMLs are applied to sensitive receivers of the Project.
	d) Details of construction activities and an indicative schedule for construction works, including the identification of key noise and/or vibration generating construction activities (based on representative construction scenarios) that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers, particularly residential areas;	Section 1.3.4 Section 3.3.1 Section 3.3.1.1; Table 29 Section 3.3.1.2 Section 3.3.1.3 Section 0; Table 33 Section 3.3.6; Table 36	Section 1.3.4 provides an indicative schedule of the construction program for the Project. A summary of the indicative construction works and associated activities proposed to be undertaken during each of these works periods is provided in Table 29. No blasting activities are permitted or proposed for the construction of the Project. Table 29 and Section 3.3.1 provides details on the construction activities that will be undertaken for the Project. Table 33 demonstrates that construction activities will not exceed specified NMLs and is unlikely to have any noise impacts on surrounding sensitive receivers. Table 36 demonstrates that construction activities will not exceed specified vibration criteria and is unlikely to have any vibration impacts on surrounding sensitive receivers.
	e) An Out-of-Hours Work Protocol as referenced in condition B68 for the assessment, management and approval of works outside standard construction hours, for the Secretary’s approval. The Out-of-Hours Work Protocol must:		

CoC	Requirement	Document Reference	How Addressed
	i. Detail assessment of out-of-hours work against the relevant noise and vibration criteria;	Table A-1	Table A-1
	ii. Provide detailed mitigation measures for any residual impacts (that is, additional to general mitigation measures), including extent of at-receiver treatments;	Table A-1 and Section A.5	Table A-1 and Section A.5
	iii. Include proposed notification arrangements; and	Table A-1, Number 10	Table A-1, Number 108
	iv. Include an Extended Hours Work Plan as required by condition B69.	Appendix B	Appendix B
	f) Identification of feasible and reasonable measures to be implemented to minimise and manage construction noise impacts, including, but not limited to, acoustic enclosures, erection of noise walls (hoardings), respite periods;	Section 3.4; Table 38	Table 37 includes the requirements of the CoC, FCMM, ICNG and best practice management measures.
	g) Management of the number of trucks accessing the site;	Section 3.3.5 and Table 34 Figure 3-3, and Section 3.3 of the CTAMP Truck Driver Protocol in CTAMP Appendix B	Section 3.3.5 and Table 34 identifies the existing and project daily traffic volumes and the percentage of heavy vehicles along specified routes. Specified routes are shown in Figure 3-3 of the CTAMP. Truck Driver Protocol Appendix B of the CTAMP details protocols for accessing site. Section 3.3 of the CTAMP describes how traffic and transport risks will be managed during construction of the Project. Section 3.3.11, Table 3-10 includes mitigation measures (TA-12, TA-13, TA-17, TA-18, TA-33, TA-34) that will assist in the management of the number of trucks accessing the Project site.
	h) A truck driver protocol addressing the designated routes, acceptable delivery hours, speed limits on site, no engine braking in the vicinity or on site, no extended periods of idling, avoiding queuing in or around the site and limiting the need for reversing on site	Section 3.3.5 Section 3.4 Table 37 NV11 Truck Driver Protocol in CTAMP Appendix B Section 4.3	Section 3.3.5 indicates that a truck driver protocol has been prepared as part of the CTAMP to address the requirements of this condition. Section 4.3 details where updates to the CNVMP will require updates to the CTAMP.
	i) Identification of feasible and reasonable procedures and mitigation measures to ensure relevant vibration criteria are achieved, including applicable buffer distances for vibration intensive works, use of low vibration generating equipment /vibration dampeners or alternative	Section 3.2.2.4 Section 3.3.6 Section 3.4; Table 38 NV8, NV10, NV15 and NV16	Section 3.2.2.4 details vibration management levels to be adhered to Table 38 details feasible and reasonable mitigation measures that will be implemented to ensure vibration criteria is achieved and includes the following mitigation

CoC	Requirement	Document Reference	How Addressed
	construction methodology, and pre and post-construction dilapidation surveys or sensitive structures where vibration is likely to result in damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria);		measures (NV8, NV10, NV15 and NV16) that address the requirement of this condition.
	<p>j) A description of:</p> <p>i) how the effectiveness of mitigation and management measures would be monitored during the proposed works, clearly indicating</p> <p>ii) how often this monitoring would be conducted,</p> <p>iii) the locations where monitoring would take place,</p> <p>iv) how the results of this monitoring would be recorded and reported, and, if any exceedance is detected</p> <p>v) how any non-compliance would be rectified;</p>	<p>i) Section 4.1</p> <p>ii) Section 4.1</p> <p>iii) Section 4.1.2</p> <p>iv) Section 4.1.5</p> <p>v) Section 3.4 NV12 and NV13, Section 4.2 and 4.3</p>	<p>i) and ii) Section 4.1 details monitoring to be undertaken, and frequency, to determine the effectiveness of mitigation measures employed.</p> <p>iii) Monitoring locations described in Section 4.1.2.</p> <p>iv) Section 4.1.5 details reporting requirements</p> <p>v) In the unlikely event that construction activities exceed specified NMLs mitigation measures NV12 and NV13 will be implemented. Section 3.3.6 includes mitigation measures that will be applied in the event that construction activities exceed established vibration criteria.</p>
	k) Noise and vibration monitoring procedures (routine and complaints triggered monitoring);	<p>Section 4.1</p> <p>Section 4.2;</p> <p>Table 39</p>	<p>Section 4.1 details noise and vibration monitoring procedures.</p> <p>Table 39 provides details on complaints triggered monitoring.</p>
	l) A community consultation and complaints handling procedure; and,	<p>Section 3.3 of the Construction Community Communication Strategy</p> <p>Section 4.2;</p> <p>Table 39</p>	<p>Table 39 details the noise and vibration incident and complaint response management process.</p> <p>Community consultation will be undertaken in accordance with Section 3.3 of the Construction Community Communication Strategy.</p>
	m) Mechanisms for the monitoring, review and amendment of this plan.	<p>Section 4.3</p> <p>Section 4.5 of the CEMP</p>	<p>Section 4.3 details the mechanisms for review and amendment of this plan. Reviews will be undertaken in accordance with Section 4.5 of the CEMP.</p>
B78	Blasting is not permitted on the site.	Section 3.3.1.1	No blasting activities are proposed or permitted.
C7	The Applicant must ensure that the environmental management plans required under this consent are prepared in accordance with any relevant guidelines, and include:	<p>a) Section 3.1</p> <p>b) Section 2.1, Section 3.2</p> <p>c) Section 3.4</p>	a) Section 3.1 details existing background noise levels

CoC	Requirement	Document Reference	How Addressed
	(a) detailed baseline data; (b) a description of: i. the relevant statutory requirements (including any relevant approval, licence or lease conditions); ii. any relevant limits or performance measures / criteria; and iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (c) a description of the management measures to be implemented to comply with the relevant statutory requirements, limits or performance measures / criteria; (d) a program to monitor and report on the: i. impacts and environmental performance of the development; and ii. effectiveness of any management measures (see (c) above); (e) a contingency plan to manage any unpredicted impacts and their consequences; (f) a program to investigate and implement ways to improve the environmental performance of the development over time; (g) a protocol for managing and reporting any: i. incidents and non-compliances; ii. complaints; iii. non-compliances with statutory requirements; and (h) a protocol for periodic review of the plan. <i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for a particular management plan.</i>	d) Section 4.1 and Section 4.3 e) Section 4.2 f) Section 4.1 and 4.3 g) Section 4.2 and Section 4.1.6 h) Section 4.3	b) Section 2.1 details legislative requirements, noise and vibration criteria are detailed in Section 3.2 c) Section 3.4 details management measures d) Section 4.1 details monitoring requirements, reporting is outlined in Section 4.1.5. Section 4.3 details the effectiveness of management measures e) Section 4.2 details measures to be followed in the event of an exceedance or complaint f) Section 4.1 details monitoring and reporting requirements. Section 4.3 details the mechanism to review and improve performance g) Section 4.2 details incident and complaints management. This is further detailed within the CEMP and Section 4.1.6 details the process for managing non-compliances h) Section 4.3 details periodic review.

The Final Compilation of Mitigation Measures (FCMMs) were prepared as part of the MPE Stage 2 Submissions Report (Arcadis 2017). A list of the FCMMs as relevant to the Project and how they have been complied with in this plan are provided in Table 10.

Table 10 Final Compilation of Mitigation Measures (FCMM)

FCMM	Requirement	Document Reference
2A	A Construction Noise and Vibration Management Plan (CNVMP), or equivalent, would be prepared for the Amended Proposal in accordance with the <i>Interim Construction Noise Guideline</i> (DECC, 2009) (or equivalent), and will include the following:	Section 2.1
	<ul style="list-style-type: none"> Identification of nearby residences and other sensitive land uses 	Figure 3-1

FCMM	Requirement	Document Reference
	<ul style="list-style-type: none"> Description of approved hours of work 	Table 37 NV5
	<ul style="list-style-type: none"> Description and identification of construction activities, including work areas, equipment and duration 	Section 3; Table 37 NV5
	<ul style="list-style-type: none"> Description of what work practices (generic and specific) will be applied to minimise noise and vibration 	Table 37 NV10
	<ul style="list-style-type: none"> Consider the selection of plant and processes with reduced noise emissions 	Table 37 NV8 and NV9
	<ul style="list-style-type: none"> A complaints handling process 	Section 4.2
	<ul style="list-style-type: none"> Noise and vibration monitoring procedures 	Section 4.1
	<ul style="list-style-type: none"> Overview of community consultation required for identified high impact works 	Table 37 NV2
	<ul style="list-style-type: none"> Induction and training will be provided to relevant staff and sub-contractors outlining their responsibilities with regard to noise 	Table 37 NV4
	<ul style="list-style-type: none"> Procedure for approval of any works undertaken outside of the following hours: <ul style="list-style-type: none"> Standard hours of 07:00 am to 18:00 pm Monday to Friday, and 08:00am to 13:00 pm Saturday, Out of hours (OOH) work periods: <ul style="list-style-type: none"> OOH Period 1 is 6:00am – 7:00am weekdays; OOH Period 2 is 6:00pm – 10:00pm weekdays OOH Period 3 is 7:00am – 8:00am Saturday; and 	Appendix A. Note that the OOH Periods presented in FCMM 2A are inconsistent with CoC B69. Therefore, CoC B69 extended hours have been utilised.
	<p>Any works undertaken outside of the hours prescribed in mitigation measure 2A would be undertaken in consultation with relevant authorities. Works outside these hours that may be permitted would include:</p> <ul style="list-style-type: none"> Any works which would not result in audible noise emissions at any nearby sensitive receptors. 	
	<ul style="list-style-type: none"> The delivery of oversized plant and/or structures that police or other authorities determine require special arrangements to transport along public roads 	
2B	<ul style="list-style-type: none"> Emergency work to avoid the loss of lives, property and/or to prevent environmental harm 	Appendix A Out of hours Protocol
	<ul style="list-style-type: none"> Maintenance and repair of public infrastructure where disruption to essential services and/or consideration of worker safety do not allow work within standard construction hours. 	
	<ul style="list-style-type: none"> Public infrastructure works that shorten the length of the project and are supported by noise-sensitive receivers. 	
	<ul style="list-style-type: none"> Construction works where it can be demonstrated and justified that these works are required to be undertaken outside of standard construction hours. 	
	<p>Any other work as approved through the CNVMP.</p>	
2D	<p>In the event of any noise or vibration related complaint or adverse comment from the community, noise and ground vibration levels (as relevant) would be investigated. Remedial action would be</p>	Section 4 and Table 37 NV3

FCMM	Requirement	Document Reference
	implemented where feasible and reasonable. The procedures for managing complaints would be provided within the Community Information and Awareness Strategy.	

2.1.2.2 EPBC Approvals

The EPBC Act approval for the MPE Concept was granted by the Department of the Environment in March 2014 (No. 2011/6229). This approval was provided for the impact of the MPE Project on listed threatened species and communities (Sections 18 and 18A of the EPBC Act) and Commonwealth land (Sections 26 and 27A of the EPBC Act).

The EPBC Act approval for the MPW Concept was granted by the Commonwealth Department of Environment and Energy (DotEE) in September 2016 (No. 2011/6086). This approval was provided for the impact of the MPW Project on listed threatened species and communities (Sections 18 and 18A of the EPBC Act) and Commonwealth land (Sections 26 and 27A of the EPBC Act).

The Moorebank Avenue upgrade works will be performed under the MPE Stage 2 Consent as described in Section 1.1 and 1.3 of the CEMP. Since the western side of the Moorebank Avenue upgrade works construction footprint is located within the MPW site, the works must comply with the MPW Commonwealth Approval.

The construction and operation of the Project has been designed to be consistent with the EPBC Act Approval conditions, where relevant. EPBC Act Approval conditions for the Project include specific conditions and commitments that are required to be addressed in this plan. These conditions are specified within Table 11 along with the where they have been addressed in preparing this plan.

Table 11 Commonwealth Conditions of Approval (CoA)

Condition	Requirement	Document Reference
MPE EPBC Approval (2011/6229)		
7(b)	Identification and quantification of all potential impacts associated with noise, vibration, air quality, traffic, light spill, hydrological changes, contamination, and indigenous heritage (including cumulative impacts associated with the DoF’s proposed intermodal) upon Commonwealth land. Consideration must be given to people and communities at SME, DNSDC, Defence housing, and the environment more generally in neighbouring bushland areas.	Section 3 addresses potential construction noise impacts The DNSDC has been relocated to the DJLU, to the north of the MPE site, and is listed as a sensitive receiver in this plan and therefore relevant management measures within this plan are applicable. Note: The SME and Defence housing have been relocated from the MPW Site to the Holsworthy Barracks and are no longer sensitive receivers of the MPE site.
7(f)	Identification of the trigger values and criteria for all matters mentioned in condition 7(b) (excluding light spill, land contamination and indigenous heritage) that will be adopted for monitoring and managing potential impacts to Commonwealth Land.	Section 3.2
MPW EPBC Approval (2011/6086)		
6	Sections of the CEMP and OEMP relating to noise and vibration must be prepared by a suitably qualified expert and must:	This Plan

Condition	Requirement	Document Reference
	a) be consistent with the Noise and Vibration Provisional Environmental Management Framework (2 July 2014), provided at Appendix 0 to the finalised EIS	
	b) incorporate all measures 5A to 5T (CEMP only) and 5U to 5AJ (OEMP only) from Table 7.1 of the finalised EIS that are described as 'mandatory'	Section 3.4 addresses all 'mandatory' measures
	c) explain how all measures 5A to 5T (CEMP only) and 5U to 5AJ (OEMP only) from Table 7.1 of the finalised EIS that are described as 'subject to review' have been addressed	Section 3.4 addresses all measures described as 'subject to review' Appendix A also addresses measures 5D and 5S
	d) be approved by the Minister or a relevant New South Wales regulator.	This plan was approved by DP&E on 15 June 2018.

The MPE Commonwealth mitigation measures which are relevant to this plan are detailed in Table 12. There are no additional mitigation measures for MPW.

Table 12 MPE Commonwealth Mitigation Measures (CMM)

Issue	Requirement	Document Reference
Noise	A Construction Noise and Vibration Management Plan would be developed to implement best practice mitigation and management measures to minimise noise impacts on surrounding land uses and sensitive receivers, including Commonwealth Land during construction. The Construction Noise and Vibration Management Plan would address following noise issues:	This plan
Noise	Construction activities would have regard to the standard hours of 07:00 am to 18:00 pm Monday to Friday, and 08:00am to 13:00 pm Saturday (with approval from relevant authorities). Works outside of these hours that may be permitted would include (Wilkinson Murray 2013): <ul style="list-style-type: none"> Any works which do not cause noise emissions to be audible at any nearby sensitive receptors. The delivery of materials which is required outside of these hours as requested by Police or other authorities for safety reasons. Local residents would be informed of the timing and duration of approved works in accordance with the SIMTA's notification provisions. Emergency work to avoid the loss of lives, property and/or to prevent environmental harm. 	Section 3.4
Noise	Any other work as approved through the Construction Noise and Vibration Management Plan Process.	
Noise	Training and awareness which would include the following: <ul style="list-style-type: none"> Site awareness training/environmental inductions to provide instruction on noise mitigation techniques/measures to be implemented during construction of the SIMTA proposal. Working within approved hours. Working with noisy equipment away from sensitive receivers. Using noise screens and temporary barriers Maintaining plant and equipment. Turning off machinery when not in use. 	Section 2.3

Issue	Requirement	Document Reference
	<ul style="list-style-type: none"> Limiting the “clustering” of noisy plant / processes. Communication, including a notification process to inform residents of respite times. Incident and emergency response. <p>Non-conformance, preventative and corrective action procedures.</p>	
CMM	Selection of quiet plant and processes wherever feasible and retrofitting reversing alarms that are quieter and display less annoying characteristics. Such alarms could include “smart alarms” and “quacker alarms”.	Section 3.4
CMM	<p>Where appropriate specific mitigation measures that may be considered would include:</p> <ul style="list-style-type: none"> Portable temporary screens to mitigate specific noise sources. Respite periods (e.g. for extended periods of driven piling and use of rock breakers). Consideration of offset distances, orientation and position of noisy plant away from sensitive receptors, including SME and DNSDC operations. Completion of loading and unloading activities away from sensitive receivers. Use of spotters, closed circuit television monitors, “smart” reversing alarms or “squawker” type reversing alarms in place of traditional reversing alarms. <p>The anticipated effectiveness of some noise mitigation techniques in reducing construction noise impacts are presented in Table 84.</p>	Section 3.4
CMM	Ground borne vibration levels would be measured and monitored to establish the minimum working separation between the equipment and nearby vibration sensitive receivers and buildings that have the potential to be impacted when vibration-generating equipment is used during construction of the SIMTA proposal.	Section 4.1.4

2.1.2.3 Revised Statement of Commitments

The Revised Statement of Commitments (RSoC) includes the most recent compilation of SIMTA commitments to mitigate the environmental impacts, monitor the environmental performance and/or achieve a positive environmentally sustainable outcome. These RSoCs (June 2017) were presented in the Moorebank Precinct East – Concept Plan Modification 2 Response to Submissions. The RSoC that are relevant to this plan are specified in Table 13.

Table 13 Revised Statement of Commitments

RSoC	Requirement	Document Reference
RSoC – Item 1.3	<p>RSoC – Noise and Vibration</p> <p>Prior to undertaking demolition and construction on site, a Construction Noise and Vibration Management Plan should be prepared based on details of the proposed construction methodology, activities and equipment This should identify potential noise and vibration impacts and reasonable and feasible noise mitigation measures (such as those identified in this report) that may be implemented to minimise any potential impacts, including engineering and management controls.</p>	This plan
RSoC – Item 1.3	<p>RSoC – Noise and Vibration</p> <ul style="list-style-type: none"> All construction activities will have regard to the standard hours During construction of 7:00am to 6:00pm Monday to 	Section 1.3.5 and 3.3.1.3

RSoC	Requirement	Document Reference
	<p>Friday and 8:00am to 1:00pm Saturday (with approval from relevant authorities). Any works undertaken outside of these hours will be undertaken in consultation with relevant authorities.</p> <ul style="list-style-type: none"> • Works outside these hours that may be permitted will include: <ul style="list-style-type: none"> – Any works which do not cause noise emissions to be audible at any nearby sensitive receptors. – The delivery of materials which is required outside of these hours as requested by Police or other authorities for safety reasons. Local residents, commercial and industrial premises will be informed of the timing and duration of approved works in accordance with the notification provisions outlined in the CNMP. – Emergency work to avoid the loss of lives, property and/or to prevent environmental harm. <p>Any other work as approved through the CNMP Process.</p>	

MPE Concept Plan Conditions of Consent are not directly relevant to the development of this plan.

2.2 Roles and Responsibilities

Relevant roles and responsibilities associated with this CNVMP are presented in Table 14.

Table 14 Roles and Responsibilities

Roles	Responsibilities
<p>Contractor’s Project Manager (Contractor’s PM)</p>	<ul style="list-style-type: none"> • Include environmental consideration into all aspects of Project planning • Ensure that Project responsibilities and authorities are defined and communicated • Attend audit meetings and action results of any audit findings • Allocate Project resources to handle environmental issues • Oversee the implementation and maintenance of the CNVMP • Endorse the CNVMP • Appoint / nominate and provide support for the Contractor’s Environmental Manager (Contractor’s EM) • Report to senior management and the Principal’s Representative on the performance of the system and environmental breaches • Take action to resolve environmental non-conformances and incidents • Sign off on all environment and sustainability inspections • Enforce environmental requirements for suppliers and sub-contractors • Report environmental incidents to the Principal’s Representative • Authorise expenditure to implement environmental management requirements within limits of authority as defined in the Principal’s Representatives Project requirements • Undertake ICAM investigations • Review audit corrective actions and take action as necessary to ensure timely close out of issues • Be contactable 24 hours a day • Direct works to be performed in a more environmental responsible manner that reduces impacts or stop works if there is a risk of environmental harm
<p>Contractor’s Construction Manager</p>	<ul style="list-style-type: none"> • Communicating with all personnel and sub-contractors regarding compliance and non-conformance with the CEMP and site specific environmental issues / EWMS

Roles	Responsibilities
(Contractor's CM)	<ul style="list-style-type: none"> Identifying resources required for implementation of the CEMP Organise and manage site plant, labour and temporary materials Coordinating the implementation and maintenance of site environmental controls and provide support for the Contractor's EM Report all environmental incidents in accordance with the incident reporting protocol Undertake ICAM investigations Take action to resolve non-conformances and incidents Be contactable 24 hours a day Direct works to be performed in a more environmentally responsible manner that reduces impacts or stop works if there is a risk of environmental harm
Contractor's Environmental Manager (Contractor's EM)	<ul style="list-style-type: none"> Oversee the overall implementation of this CNVMP Ensure that sufficient resources are allocated for the implementation of this CNVMP Ensure that the CEMP covers the management and mitigation measures presented in this CNVMP Consider and advise senior management on compliance and conformance obligations Ensure that the outcomes of compliance monitoring / incident reporting are systematically evaluated as part of ongoing management of construction activities Ensure all noise and vibration mitigation measures are implemented Where standard mitigation measures are deemed insufficient, undertake reasonable steps to manage adverse impacts and implement all additional measures Authorise cessation of construction activities on-site if exceedances are identified Ensure construction activity records / monitoring records/ incident reports are kept and maintained on-site Ensure audits of construction site activity records / monitoring records/ incident reports are undertaken as needed, findings are shared with relevant site personnel and corrective actions are implemented Ensure all relevant personnel have and understand the most up-to-date copy of this CNVMP Ensure that all requirements of this CNVMP are effectively implemented Ensure that any required actions arising from incident investigation processes during compliance construction monitoring are reported to the relevant personnel for further action and ensure that the actions are effectively implemented Coordinate the implementation of monitoring requirements and corrective actions Ensure that experienced, trained or qualified personnel conduct the noise (or vibration) monitoring Ensure all monitoring reporting requirements are met and maintained on site Acts as a primary site contact for any valid complaints received via the Contractor's CLM Authorise all monitoring reports and any revisions to this CNVMP
Site Supervisors	<ul style="list-style-type: none"> Oversee the implementation of this CNVMP Ensure works are undertaken during permitted hours Ensure all noise and vibration mitigation measures are implemented Where standard mitigation measures are deemed insufficient, undertake reasonable steps to manage adverse impacts and implement all additional measures
Contractor's Community Liaison Manager (Contractor's CLM)	<ul style="list-style-type: none"> Implement the Community Consultation Strategy Assist the Contractor's EM in consulting regulatory agencies and community Communicate potential environmental impacts to the community and all stakeholders Manage the resolution of environmental complaints Act as a 24-hour contact (if other staff as outlined above are not available).
Construction contractors / sub-	<ul style="list-style-type: none"> Understand and implement mitigation as required in the CNVMP and any additional required measures identified during construction Participate (or conduct if authorised) relevant training to implement the requirements of this CNVMP

Roles	Responsibilities
contractors / site personnel	
Noise and Vibration Monitoring Personnel (contractors)	<ul style="list-style-type: none"> • Undertake relevant training to implement the requirements of this CNVMP • Undertake all monitoring activities in accordance with this CNVMP • Ensure regular maintenance of monitoring equipment • Ensure all relevant monitoring quality control / assurance procedures are effectively implemented

2.3 Training

All site personnel, contractors and sub-contractors shall undergo site specific induction training, which will include noise and vibration management training developed with an emphasis on understanding and managing noise impacts from the work activities being undertaken.

This site-specific induction training will include:

- The location of potentially sensitive receptors
- Relevant noise and vibration mitigation measures, including noise screens and temporary barriers where feasible
- Site hours of operation i.e. the permissible hours of work, including deliveries
- A summary of relevant licence and approval conditions
- Any limitations on high noise generating activities
- Construction employee parking areas
- Designated loading/unloading areas and procedures
- Emphasis that there should be no swearing, shouting or loud stereos/radios on site
- Details of the complaints handling procedure
- Details of the environmental incident procedures
- Limiting the clustering of noisy plant / processes
- Communication, including a notification process to inform residents of respite times
- Non-conformance, preventative and corrective action procedures
- Outline the consequences of not complying with these measures
- Toolbox meetings will be undertaken as required covering specific environmental issues and will include noise and vibration control measures where required, including but not limited to:
 - Ensuring work occurs within approved hours
 - Locating noisy equipment away from sensitive receptors
 - Ensuring plant and equipment is well maintained and not making excessive noise
 - Operation of vehicles to minimise noise and vibration impacts, i.e. use of designated haulage routes, use of non-tonal reversing beepers, turning off plant, equipment and vehicles when not in use.

Toolbox training on noise and vibration management requirements and measures will be completed by the Contractor’s EM (or nominated authority) during the Project.

Personnel directly involved in implementing noise and vibration control measures on site will be given specific training in the various measures to be implemented. Records of all training will be filed in the Project filing system.

3 IMPLEMENTATION

3.1 Existing Environment

The existing noise environment in the vicinity of the Project is best described as ‘urban’, being an area with an acoustical environment that:

- Is dominated by ‘urban hum’ or industrial source noise
- Has through traffic with characteristically heavy and continuous traffic flows during peak periods
- Is near commercial districts or industrial districts
- Has any combination of the above, where ‘urban hum’ means the aggregate sound of many unidentifiable, mostly traffic-related sound sources.

3.1.1 Sensitive Receivers

The potentially most affected residential receivers in the vicinity of the Project site are located in the suburbs of Casula, Glenfield and Wattle Grove. In addition to residential receivers, a number of potentially affected non-residential receivers have been identified near the Project site, including All Saints Senior College and the Casula Powerhouse, located to the west of the Project site, across the Georges River. The nearest industrial receivers consist of Moorebank Precinct West (MPW), ABB and the Defence Joint Logistics Unit (DJLU) (Figure 3-1). Table 15 presents a summary of the potentially most affected receivers near the Project site.

Table 15 Sensitive Receivers

Receiver/Suburb	Category	Distance (m) from Stage 2 Construction Area
Wattle Grove	Residential	390
Wattle Grove North		350
Casula		760
Glenfield		1,580
All Saints Senior College (S1)	Educational	1,250
Casula Powerhouse (S2)		890
MPW (I1)	Industrial	Boundary
DJLU (I2)		Boundary
ABB (I3)		495

Kitchener House is located at 208 Moorebank Avenue, and is of heritage significance. Kitchener House is vacant and is therefore not considered as a noise sensitive receptor, however it is to be considered as a sensitive receiver for potential construction vibration impacts which could cause damage to the heritage structure.

Construction Noise and Vibration Management Plan

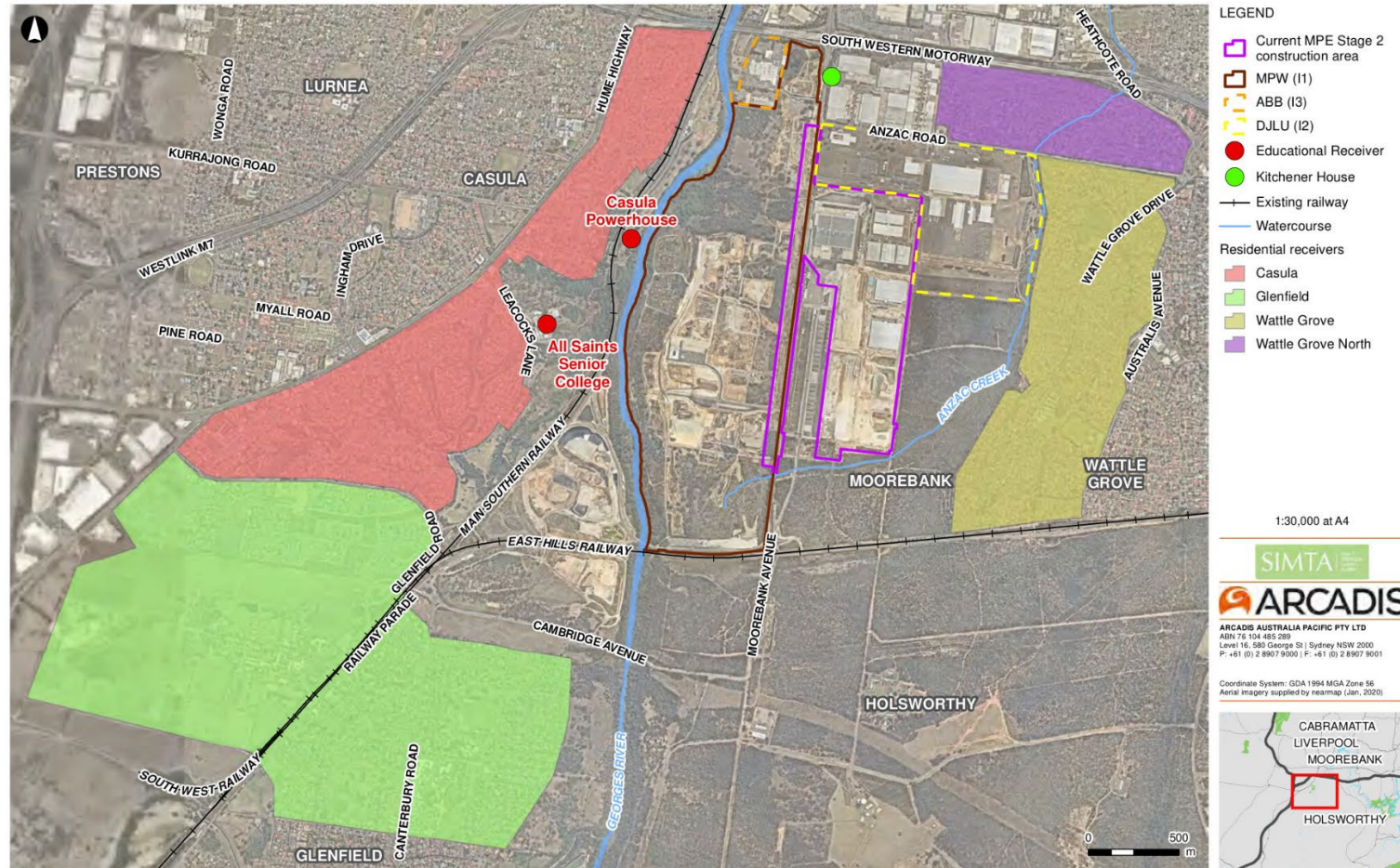


Figure 3-1: Sensitive Receivers

Date: 3/03/2020 Path: \\hc-aus-nz-16-01\jobs\AA006765L-GIS\A_Current\9_Maps\MPE2\MPE2_CEMP\MPE2_CNVMPS\SIMTA_MPES2_CNVM\02_NoiseReceivers_A4L_v5.mxd
 Created by: TT
 QA by: GC

Figure 3-1 Sensitive Receivers

3.1.2 Background Noise Levels

Background noise monitoring to satisfy CoC B62 and B63 of the MPE Stage 2 Development Consent (SSD 7628) has been conducted (in December 2017) and is presented in the Wilkinson Murray 12186-M2 Report VerC, dated January 2018.

The noise monitoring required to satisfy conditions B62 and B63 concluded that Rating Background Levels (RBLs) from December 2017 monitoring data are generally consistent with those identified in the MPE Concept Plan which were used to inform the noise management levels for the MPE 2 Stage EIS. Therefore, no change to the NMLs were required.

The RBLs at sensitive receiver locations considered representative of each of the four areas are presented in Table 16.

Table 16 Rating Background (Noise Levels)

NCA	Rating Background Levels (RBL) in dB(A)		
	Daytime (7am to 6pm)	Evening (6pm to 10pm)	Night-time (10pm to 7am)
Wattle Grove	42	37	37
Wattle Grove North	36	36	36
Casula	41	37	34
Glenfield	44	44	37

3.2 Noise and Vibration Levels

3.2.1 Noise Management Levels

The policies and standards outlined in Table 17 have been used to establish construction noise management levels for MPE Stage 2.

Table 17 Construction Noise Policies and Standards

Environment impact	Relevant policy/ standard used to establish noise and vibration management level
Airborne noise	<ul style="list-style-type: none"> NSW Interim Construction Noise Guideline (ICNG) Conditions of Consent
Sleep disturbance and maximum noise events	<ul style="list-style-type: none"> Construction noise – INP Application Notes
Construction-related road traffic noise	<ul style="list-style-type: none"> No specific guidelines, but guidance taken from the NSW Interim Construction Noise Guideline (ICNG) and the NSW Road Noise Policy (RNP).

3.2.1.1 Airborne Noise

Table 18 (reproduced from Table 2 of the ICNG) sets out the NMLs and how they are to be applied to residential receivers.

Table 18 ICNG Construction Noise Management Levels

Time of Day	Noise Management Level LAeq(15min)	How to Apply
Standard hours ¹ : Monday to Friday 7 am to 6 pm Saturday 8 am to 1 pm No work on Sundays or public holidays	RBL + 10dBA	The noise affected level represents the point above which there may be some community reaction to noise. Where the predicted or measured LAeq (15 min) is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
Standard hours	Highly noise affected 75dBA	The highly noise affected level represents the point above which there may be strong community reaction to noise. Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, considering: <ul style="list-style-type: none"> times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences) if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times
Outside recommended standard hours	Noise affected RBL + 5dBA	A strong justification will typically be required for works outside the recommended standard hours. The proponent should apply all feasible and reasonable work practices to meet the noise affected level. Where all feasible and reasonable practices have been applied and noise is more than 5dBA above the noise affected level, the proponent should negotiate with the community. Where practical, noisy construction work will be undertaken during the less sensitive 6 pm to 10 pm evening period. For guidance on negotiating agreements see section 7.2.2 of the ICNG.

Note 1: CoC B65 defines standard hours of work on Saturday to be 7 am to 1.

Within the DJLU there are a number of offices and warehouses, some of which may be sensitive to construction noise. The ICNG NML for commercial/ industrial and school receivers are shown in Table 19.

Table 19 ICNG Airborne Construction Noise Management Levels at Other Noise Sensitive Land Uses

Land Use	Noise Management Level LAeq(15min)	Where NML Applies
Classrooms at schools and other educational institutions	45 dBA	Internal noise level
Industrial premises	75 dBA	External noise level

Note: Outdoor noise level based on recommended maximum internal noise level in AS 2107 and assumes 10 dB loss through an open window.

Similar to the establishment of external amenity criteria for S1 and S2, the NML for S1 and S2 are set to 10 dBA above the internal NML.

Table 20 shows relevant construction noise goals for standard construction hours based on the measured RBL values shown in Table 16. The majority of construction is expected to occur during standard construction hours.

Table 20 NML for Standard Construction Hours

Receivers	Acceptable $L_{Aeq, 15 \text{ min}}$ Noise Level (RBL + 10 (dBA))
Wattle Grove	52
Wattle Grove North	46
Casula	51
Glenfield	54
S1, S2	55
I1, I2, I3	75

Table 21 presents construction NML for the Project for each of the OOH works periods specified in Table 4.

Table 21 Construction Noise Management Levels by OOH Work Period

Receiver	NMLs (dBA)			
	1	2	3	4
OOH Period				
Wattle Grove	42	42	47	47
Wattle Grove North	41	41	41	41
Casula	39	42	46	46
Glenfield	42	49	49	49
S1, S2	55	55	55	55
I1, I2, I3	75	75	75	75

3.2.1.2 Sleep Disturbance

For residential receptors, it is also important to consider potential sleep disturbance impacts associated with OOHW conducted during the night time (10pm to 7am) period.

Screening levels for maximum noise levels during the night time period (10:00pm – 7:00am) were established in accordance with the INP Application Notes (www.epa.nsw.gov.au/noise/applicnotesindustnoise.htm) and are presented in Table 22.

Table 22 Sleep Disturbance Screening Levels

Catchment	Sleep Disturbance Screening Level ($L_{A,1min} / L_{Amax}$)
Wattle Grove	52
Wattle Grove North	51
Casula	49
Glenfield	52

This method (RBL + 15 dB) is widely accepted as the appropriate method for assessing and managing sleep disturbance impacts (using the $L_{A1, 1min}$ or L_{Amax} noise descriptors) and is adopted here to establish criteria for use in the CNVMP.

Where there are noise events found to exceed the initial screening level, further analysis is made to identify:

- The likely number of events that might occur during the night assessment period
- Whether events exceed an 'awakening reaction' level of 55dBA L_{Amax} (internal), which equates to an external L_{Amax} NML of 65 dBA (assuming open windows).

3.2.1.3 Construction Traffic Noise Criteria

The ICNG does not include any criteria to assess off-site traffic noise associated with construction of the Project.

Criteria for off-site road traffic noise applicable to existing residences affected by additional traffic on existing local roads generated by land use developments are specified in the NSW Road Noise Policy (RNP). Whilst these criteria do not specifically apply to construction traffic movements, they have been conservatively considered and are summarised in Table 23.

Table 23 RNP Criteria for Road Traffic Noise

Road	Category	Assessment Criteria - dBA	
		Day ($L_{Aeq, 15\text{ hour}}$ (7am – 10pm)	Night ($L_{Aeq, 9\text{ hour}}$ (10pm – 7am)
M5 Motorway	Freeway	60 (external)	55 (external)
Moorebank Avenue, Anzac Road	Arterial Road	60 (external)	55 (external)

Note: The specified criteria do not apply to vehicle movements within the Project Site. For the purpose of assessment, any noise generated by on-site vehicle movements is considered as construction noise and assessed holistically with on-site mobile plant in accordance with the ICNG.

Additionally, it is typically recognised that for existing residences and other sensitive land uses affected by additional traffic on existing roads, any increase in the total traffic noise level should preferably be limited to 2 dB above the existing road traffic noise levels. A 2 dB increase is typically considered not noticeable.

3.2.2 Vibration Management Levels

The policies and standards outlined in Table 24 have been used to establish vibration management levels for the Project.

Table 24 Vibration Standards

Environment impact	Relevant policy/ standard used to establish noise and vibration management level
Vibration (structural damage to buildings and buried services)	<ul style="list-style-type: none"> • German Standard DIN 4150:2016 – Part 3 Structural vibration in buildings – Effects on structures
Vibration impact on humans	<ul style="list-style-type: none"> • Assessing Vibration: A Technical Guideline (DECC, 2006) • British Standard BS 6472-1992 and 2008 'Guide to evaluation of human exposure to vibration in buildings (1-80Hz)'

3.2.2.1 Disturbance to Buildings Occupants

Assessment of potential disturbance from construction vibration on human occupants of buildings is made in accordance with the guideline Assessing Vibration: A Technical Guideline (DECC, 2006). The guideline

provides criteria which are based on the British Standard BS 6472-1992 'Guide to Evaluation of Human Exposure to Vibration in Buildings (1-80Hz)'.

BS6472-1992 nominates guideline values for various categories of disturbance, the most stringent of which are the levels of building vibration associated with a "low probability of adverse comment" from occupants.

BS 6472-1992 was amended in 2008 to extend the use of the Vibration Dose Values (VDV) to all types of vibration (i.e. continuous, impulsive and intermittent). The vibration dose value is dependent upon the level and duration of the short-term vibration event, as well as the number of events occurring during the daytime or night-time period.

The vibration dose values recommended in BS 6472-1992 for which various levels of adverse comment from occupants may be expected are presented in Table 25.

Table 25 Vibration Dose Value ranges which might result in various probabilities of adverse comment within buildings

Place and Time	Low probability of adverse comment ($m/s^{1.75}$)	Adverse comment possible ($m/s^{1.75}$)	Adverse comment probable ($m/s^{1.75}$)
Critical areas (day or night)	0.1 to 0.2	0.2 to 0.4	0.4 to 0.8
Residential buildings 16 hr day	0.2 to 0.4	0.4 to 0.8	0.8 to 1.6
Residential buildings 8 hr night	0.1 to 0.2	0.2 to 0.4	0.4 to 0.8
Offices, schools, educational institutions and places of worship (day or night)	0.4 to 0.8	0.8 to 1.6	1.6 to 2.4
Workshops (day or night)	0.8 to 1.6	1.6 to 3.2	3.2 to 6.4

To assess the potential for vibration impact on human comfort, initial screening criteria based on *Assessing Vibration; a technical guideline* (DECC, 2006) have been adopted based on peak velocity units, as this metric is also used for the cosmetic damage vibration assessment. The screening criteria are conservative because they are based on the continuous vibration velocity criteria (i.e. vibration that continues uninterrupted for a defined assessment period) while construction works are mostly intermittent. The screening criteria are based on the preferred peak values, as shown in Table 26, for pseudo-continuous work activities and on maximum peak values for surface construction works, which are intermittent in nature.

Table 26 Construction Vibration Distance - Initial Screening Criteria

Place and Time	Preferred peak velocity, mm/s (>8Hz)	Maximum peak velocity, mm/s (>8Hz)
Critical areas (day or night)	0.14	0.28
Residential buildings 16 hr day	0.28	0.56
Residential buildings 8 hr night	0.20	0.40
Offices, schools, educational institutions and places of worship (day or night)	0.56	1.10
Workshops (day or night)	1.10	2.20

3.2.2.2 Structural Damage to Buildings

Potential structural damage of buildings caused by vibration is typically managed by ensuring vibration induced into the structure does not exceed certain limits and standards.

For this project, German Standard DIN 4150 – 2016 – Structural vibration: Part 3: Effects of vibration on structures, (DIN 4150-3) is referenced by CoC 72.

DIN4150-3 suggests levels at which damage might occur. Damage is defined as any permanent effects of vibration that reduces the serviceability of a structure or one of its components.

Table 27 sets out the recommended limits from DIN4150 for short-term vibration to ensure minimal risk of damage.

Table 27 Vibration Guide Values - minimal risk of cosmetic damage (DIN 4150-3) - peak particle velocity

Guideline Values for Velocity – mm/s (peak component particle velocity)				
Type of Structure	At Foundation at a Frequency of			Top Storey (Horizontal)
	1 to 10 Hz	10 to 50Hz	50 to 100 Hz ¹	All Frequencies
Buildings used for commercial purposes, industrial buildings, and buildings of similar design	20	20 to 40	40 to 50	40
Dwellings and buildings of similar design and/or occupancy ²	5	5 to 15	15 to 20	15
Structures that, because of their particular sensitivity to vibration, cannot be classified under lines 1 and 2 and are of great intrinsic value (eg. Listed buildings under preservation order)	3	3 to 8	8 to 10	8

Note 1: At frequencies above 100Hz, the values given in this column may be used as minimum values.

Note 2: Type of structure considered to be representative of a residential building.

For this project, the guideline values taken at the foundation have been used because the buildings are typically low level.

Furthermore, DIN 4150-3 states that exceeding these values does not necessarily result in structural damage. If the criteria are significantly exceeded, further investigation will be conducted.

3.2.2.3 Structural Buried Pipework and Infrastructure

Table 28 provides guideline values for evaluating the effects of vibration on buried pipework and infrastructure. It is assumed that the pipes have been manufactured and laid using current technology; if this is not the case, special considerations will have to be made.

Table 28 Vibration Guide Values - minimal risk of cosmetic damage (DIN 4150-3) - peak component particle velocity – pipes and infrastructure

Pipe Material	Guideline Values for Velocity – mm/s (peak component particle velocity)
Pipes (including welded pipes)	100
Clay, concrete, reinforced concrete, pre-stressed concrete, metal (with and without flange).	80
Masonry, plastic	50

3.2.2.4 General Vibration Screening Criterion

DIN4150-3 states that the guide values in Table 27 relate predominantly to short-term vibration, which does not give rise to fatigue in structures.

For most construction activities involving short term vibration sources such as rock breakers, piling rigs, vibratory rollers, excavators and the like, the predominant vibration energy occurs at frequencies greater than 10 Hz (and usually in the 20 Hz to 100 Hz range). On this basis, a conservative vibration damage screening level per receiver type is given below:

- Buildings used for commercial purposes, industrial buildings, and buildings of similar design: 20.0 mm/s
- Dwellings and buildings of similar design and/or occupancy: 5.0 mm/s
- Pipework and infrastructure: 50mm/s
- Heritage buildings: 3mm/s

At locations where the predicted and/or measured vibration levels are greater than shown above (peak component particle velocity), a more detailed analysis of the building structure, vibration source, dominant frequencies and dynamic characteristics of the structure will be conducted to determine the applicable safe vibration level.

3.2.2.5 Heritage

A building of historical value should not (unless it is structurally unsound) be assumed to be more sensitive.

If required, the advice of a heritage specialist on methods and locations for installing equipment used for vibration, movement and noise monitoring of heritage-listed structures will be sought.

Unless otherwise advised, heritage buildings and structures will be assessed as per the screening criteria presented in the Section above as they should not be assumed to be more sensitive to vibration unless they are found to be structurally unsound. If a heritage building or structure is found to be structurally unsound (following inspection) a more conservative cosmetic damage objectives of 3 mm/s peak component particle velocity (from DIN 4150-3) will be applied.

The approach to manage potential vibration impact shall be to:

1. Identify heritage items where the 3 mm/s peak component particle velocity objective may be exceeded during specific construction activities
2. Structural engineering report to be undertaken on any identified heritage items where exceedances of 3 mm/s peak component particle velocity are expected, to confirm structural integrity of the building and confirm if item is 'structurally sound'
3. If item confirmed as 'structurally sound', adopt the screening criteria, or
4. If item confirmed as 'structurally unsound' or no structural engineering report conducted, adopt the more conservative cosmetic damage objectives of 3 mm/s peak component particle velocity.

3.3 Environmental Impacts

3.3.1 Construction Activities

3.3.1.1 Standard Construction Hours

A summary of the indicative construction works and associated activities proposed to be undertaken during each of these works periods is provided in Table 29. No blasting activities are permitted or proposed for the construction of the Project.

Table 29 Construction activities to be Undertaken Within Each Construction Works Period

Delivery Phase	Works Periods	Activity
Early Works	Works Period B: Site preparation activities	<ul style="list-style-type: none"> • Geotechnical and utilities investigation works including potholing to confirm the location of existing services, disconnection of non-critical services (with retention in place), grout filling of disconnected draining lines, adjustment and relocation where applicable, and demolition of

Delivery Phase	Works Periods	Activity
		<p>buildings and structures where required to enable safe and secure access to utilities.</p> <ul style="list-style-type: none"> • Clearing of non-native vegetation, stripping of topsoil and stockpiling of topsoil on site for later re-use within site landscaping • Stabilisation of areas where topsoil has been stripped with imported clean hard fill or by other methods determined by the Environmental Representative to have minimal environmental impact • Establishment of an interim access road to existing warehousing in the north-east portion of the MPE Stage 2 site, utilising existing paved areas with minor pavement extensions as required • Removal of asbestos from heating equipment and fire resistant building elements (e.g. fire doors) by a licenced asbestos removalist followed by clearance by a certified occupational hygienist • Hazardous material cleaning and decontamination in Buildings 67, 69, 81 and 83 • Heritage salvage works in Buildings 37, 75 and 80 on the Project site to recover architectural elements for adaptive re-use • Importation, stockpiling and placement of up to 60,000 m³ (not exceeding a total of 22,000 m³ of material per day) of imported clean general fill material by truck-and-dog and / or semi-trailer • Establishment of a site access point at the existing MPE site northern access and construction of associated access road to provide for access and manoeuvrability of vehicles into and through the site in accordance with CoC B10 • Establishment of temporary site fencing, a site compound(s) and temporary car parking areas to support Early Works and construction of the Project in accordance with CoC B10, B11 and B12 • Other activities determined by the Environmental Representative to have minimal environmental impact.
Construction Phase A	Works Period B: Completion of Site preparation activities	<ul style="list-style-type: none"> • Demolition of existing structures • Clearing of vegetation • Adjusting the building formation of the site (to final operational levels) within which the Main Warehousing Compound will be located • Establishment of temporary batch plant and materials crushing plant
	Works Period E: Bulk earthworks, drainage and utilities	<ul style="list-style-type: none"> • Importation, stockpiling and placement of up to 600,000 m³ (not exceeding a total of 22,000 m³ of material per day) of imported clean general fill for bulk earthworks • Importation, stockpiling and placement of up to 250,000 m³ of suitable spoil (separate to the 600,000 m³ of imported clean general fill permitted for bulk earthworks) • Installation of on-site detention (OSD) and drainage infrastructure within the MPE Stage 2 site • Construction of retaining walls • Creation of internal road formation by general earthworks (by constructing fill embankments) • Bulk earthworks and adjusting the building formation of the Project site to final level, including the terminal hardstand • Utilities relocation and installation • Establishment of hardstand areas.
	Works Period F: Construction and internal fit-out of warehousing	<ul style="list-style-type: none"> • Foundation and floor slab installation • Erection of framework and structural walls • Installation of roof • Internal fit-out of warehouses (racking and associated services).

Delivery Phase	Works Periods	Activity
	Works Period G: Miscellaneous construction and finishing works	<ul style="list-style-type: none"> • Helicopter assisted installation of solar panels, air conditioning units and other plant • Pavement construction (internal transfer roads and perimeter road), including forming of new kerbs, gutters, medians (where required) and other structures • Line marking, lighting and sign posting • Installation of road furniture, including traffic signs and pavement markers. • Miscellaneous structural construction • Finishing works, including landscaping and general site rehabilitation, where required • Commissioning of the Project • Decommissioning/demobilisation of the Project site, including removal of construction compound(s) and temporary construction environmental controls.
Construction Works Phase B	Works Period C: Construction of the Moorebank Avenue diversion road	<ul style="list-style-type: none"> • Stripping of topsoil within footprint of temporary diversion road • Installation of temporary drainage • Placement of fill and temporary road pavement (e.g. gravel) • Construction of interface between temporary diversion road and existing Moorebank Avenue • Installation of temporary road signage, street lighting and signalling • Transfer of traffic onto temporary diversion road from Moorebank Avenue.
	Works Period E: Bulk earthworks, drainage and utilities	<ul style="list-style-type: none"> • Removal of existing pavement and stripping of topsoil within Moorebank Avenue • Importation, stockpiling and placement of approximately 600,000 m³ (not exceeding a total of 22,000 m³ of material per day) of imported clean fill • Importation, stockpiling and placement of up to 250,000 m³ of suitable spoil (separate to the 600,000 m³ of imported clean general fill permitted for bulk earthworks) • Creation of a road formation by general earthworks (by constructing fill embankments) • Utilities relocation and installation
	Works Period D: Pavement works along Moorebank Avenue	<ul style="list-style-type: none"> • Placement of select layer of earthworks material on top of the road formation • Placing and compacting the pavement later (concrete, or concrete and asphalt) over the select layer (consisting of a sub-base and base) and potential sealing with bitumen • Traffic switching from diversion road onto final, raised Moorebank Avenue • Removal of construction traffic management and progressive opening of the internal road and warehouse access roads to traffic • Removal of road surface, road signage, street lighting and signalling from temporary diversion road • Commissioning of Moorebank Avenue.

3.3.1.2 Extended Hours

CoC B69 allows works to be undertaken during extended hours. Activities to be undertaken during extended hours are all those “not including high noise impact, piling, spoil placement, rock breaking, concrete batching”.

Approval for extended hours works is via the Out of Hours Works Protocol (Appendix A) and the works are to be managed under the Extended Hours Work Plan (Appendix B).

3.3.1.3 Out of Hours

Works outside of standard hours can occur under CoC B67 in the following circumstances:

- For the delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons
- Where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm
- Where different construction hours are permitted, or required under an EPL in force in respect of construction, in which case these construction hours must be complied with
- Where they are undertaken in accordance with the OOHW Protocol (Appendix A) detailing the assessment, management and monitoring of noise.

The activities to be undertaken during OOH (and not including extended hours detailed above) have not yet been determined; however, once identified, the OOHW Protocol (Appendix A) will be implemented.

An Out of Hours Work Protocol is provided in Appendix A and makes provision for out of hours works, including:

- Where works are shown to be inaudible at the nearest sensitive receivers and vibration levels do not exceed those stipulated by Table 2.2 and Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006);
- Where a negotiated agreement has been arranged with affected receivers
- Where noise can be shown to satisfy the noise management levels specified in the Interim Construction Noise Guideline (ICNG, DECC, 2009) at non-residential land uses
- Where works are undertaken as part of an Extended Hours Work Plan approved as part of the Out-Of-Hours Work Protocol.

3.3.2 Construction Compounds

Temporary construction compounds are required to support construction of the Project as follows:

- The Warehousing Compound
- The Liberty Compound
- The Moorebank Avenue Compound.

The Warehousing Compound which will be the main construction compound for the Project will include:

- A site office(s)
- Staff amenities
- Car parking
- Storage and laydown areas
- Materials testing facilities
- Material crushing facilities
- A concrete batching plant.

It is expected that some additional satellite compounds will be required during the construction of each individual warehouse on the Proposal site; however, the Warehousing Compound will be used for the majority of construction works.

The Liberty Compound is an existing compound consisting of two existing sheds, amenities and car parking. It is located immediately adjacent to the Warehousing Compound in the centre of the Project site.

The Moorebank Avenue Compound will be located on the western side of Moorebank Avenue, immediately south of Bapaume Road.

The Moorebank Avenue Compound will include, site offices, car parking, amenities block and equipment storage and laydown areas, with some materials such as pre-cast culverts being temporarily stored within the compound area on occasion. The entrance to this compound will be via Bapaume Road.

No stockpiles are proposed to be located within the Moorebank Avenue Compound. Some materials such as pre-cast culverts may be temporarily stored within the compound area on occasion. The location of the Moorebank Avenue Compound is shown on Figure 3-2.

The location and layout of the construction compounds are shown in Figure 3-2.

Construction Noise and Vibration Management Plan



GDA94 / MGA zone 56
1:10000 at A4

- LEGEND**
- Current MPE Stage 2 construction area
 - Moorebank Avenue upgrade
 - Construction compound
 - Cadastre (NSW DFSI, 2017)
 - Warehouse 6 & 7
 - Operational Warehousing
 - ▲ Site access
 - ▲ Temporary site access
 - Compound Access Road
 - Watercourse

Figure 3-2: Overview of Construction Compound

LOGOS

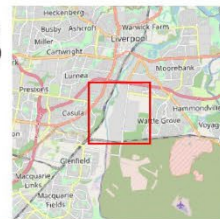


Figure 3-2 Overview of Construction Compound

3.3.3 Plant and Equipment

A range of plant and equipment will be required for the construction of the Project. A summary of the indicative plant and equipment likely to be utilised is provided in Table 30 for standard hours.

Table 30 Indicative Construction Plant and equipment Required for Construction

Equipment	Early Works	Construction Phase A						Construction Phase B		
	Site preparation activities	Completion of Site Preparation activities	Bulk earthworks, drainage and utilities	Construction and internal fit-out of warehousing	Miscellaneous construction and finishing works	Material Delivery	Stockpiling	Construction of the Moorebank Avenue diversion road	Bulk earthworks, drainage and utilities	Pavement works along Moorebank Avenue
Truck and Dog	✓	✓	✓	-	-	✓	-	-	✓	-
Loaders	✓	✓	✓	✓	✓	-	-	-	✓	-
Static and vibratory rollers, and high energy impact compaction ^{1,2}	✓	✓	✓	✓	-	-	✓	✓	✓	✓
Mobile cranes	✓	✓	✓	✓	-	-	-	-	✓	-
Excavators	✓	✓	✓	✓	-	-	-	✓	✓	✓
Excavators with hammers ¹	✓	✓	✓	-	-	-	-	-	✓	-
Backhoes	✓	✓	✓	✓	✓	-	-	-	✓	-
825 Compactor	-	-	-	-	-	-	✓	✓	-	✓
Crushing plant	-	✓	✓	-	-	-	-	-	✓	-
Concrete Batch plant	-	-	✓	✓	-	-	-	-	✓	-
Concrete agitators (or similar)	-	✓	✓	✓	✓	-	-	-	✓	-
Concrete pumps	-	✓	✓	✓	✓	-	-	-	✓	-
Concrete saws	-	-	✓	✓	✓	-	-	-	✓	-
Air compressors	-	-	✓	✓	✓	-	-	-	✓	-
Jackhammers ¹	-	-	-	✓	✓	-	-	-	-	-
Dozers	-	✓	✓	-	-	-	✓	✓	✓	✓
Mulchers	-	✓	-	-	-	-	-	-	-	-

Equipment	Early Works	Construction Phase A						Construction Phase B		
	Site preparation activities	Completion of Site Preparation activities	Bulk earthworks, drainage and utilities	Construction and internal fit-out of warehousing	Miscellaneous construction and finishing works	Material Delivery	Stockpiling	Construction of the Moorebank Avenue diversion road	Bulk earthworks, drainage and utilities	Pavement works along Moorebank Avenue
20-40 tonne articulated tipper trucks	✓	✓	✓	-	-	-	-	-	✓	-
Scrapers	-	✓	✓	-	-	-	-	-	✓	-
Graders	-	✓	✓	✓	-	✓	-	✓	✓	✓
Water trucks	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Piling rigs	-	-	✓	✓	-	-	-	-	✓	-
Forklifts	-	-	✓	✓	✓	-	-	-	✓	-
Small earthmoving equipment	✓	-	✓	✓	✓	-	-	-	✓	-
Welder	-	-	✓	✓	✓	-	-	-	✓	-
Road Sweeper	-	-	-	-	-	✓	-	-	-	-
Road profiler ¹	-	-	-	-	-	-	-	✓	-	✓
Rubber roller	-	-	-	-	-	-	-	✓	-	✓
Lighting towers	-	-	-	-	-	✓	✓	-	-	-
Generators	-	-	-	-	-	✓	-	-	-	-
Helicopter, Airbus AS350D1 or Bell 206L4	-	-	-	✓	-	-	-	-	-	-

Note 1: 5 dB modification factors applied.

Note 2: Data supplied by Day Design (ref: 6033-7.1L REV C)

3.3.3.1 Sound Power Levels of Plant and Equipment

Sound Power Levels (SWLs) associated with typical construction plant to be used throughout the construction of the Proposal are specified in Table 31. These SWLs have recently been measured at other similar construction sites. The table gives both SWL and Sound Pressure Levels (SPL) at 7m for the equipment. SWL is independent of measurement position.

Table 31 Typical Construction Plant Sound Levels - dBA

Plant	Sound Power Level	Sound Pressure Level at 7m
Truck and Dog	103	78
Loaders	112	87
Static and vibratory rollers and high energy impact compaction ^{1,2}	110	85
Mobile cranes	110	85
Excavators	110	85
Excavators with hammers ¹	122	97
Backhoes	105	80
825 Compactor	112	87
Crushing plant	118	93
Concrete batch plant	113	88
Concrete agitators (or similar)	105	80
Concrete pumps	103	78
Concrete saws	112*	87
Air compressors	100	75
Jackhammers ¹	113*	88
Dozers	118	93
Mulchers	118	93
20-40 tonne articulated tipper trucks	110	85
Scrapers	110	85
Graders	109	84
Water trucks	105	80
Piling rigs	121*	96
Forklifts	106	81
Small earthmoving equipment	95	70
Rail tamper	118	93
Welder	90	65
Road Sweeper	105	80
Road profiler ¹	116*	91
Rubber roller	108	83
Lighting Towers	85	60
Helicopter, Airbus AS350D1 or Bell 206L4	130	102
Generators	85	60

Note 1: 5 dB modification factors applied.

Note 2: Data supplied by Day Design (ref: 6033-7.1L REV C)

A number of activities have proven to be particularly annoying to nearby residents:

- Use of 'beeper' style reversing or movement alarms
- Grinding metal

- Concrete or masonry rock drilling
- Vibratory rolling
- Bitumen milling or profiling
- Jackhammering
- Rock hammering or rock breaking
- Impact piling.

These activities have had a 5 dB modification factor added to the predicted levels.

3.3.3.2 Plant Numbers

The indicative plant numbers likely to be utilised for the project is presented in Table 32.

Table 32 Works Periods, Plant Numbers and Estimated Total SWL

Equipment	Early Works			Construction Phase A				Construction Phase B		
	Site Preparation activities	Completion of Site Preparation activities	Bulk earthworks, drainage and utilities	Construction and internal fit-out of warehousing	Miscellaneous construction and finishing works	Material Delivery	Stockpiling	Construction of the Moorebank Avenue diversion road	Bulk earthworks, drainage and utilities	Pavement works along Moorebank Avenue
Truck and Dog	4	10	10	-	-	10	-	-	10	-
Loaders	-	2	2	4	2	-	-	-	2	-
Static and vibratory rollers, and high energy impact compaction	2	4	4	3	-	-	1	3	4	3
Mobile cranes	2	2	5	8	-	-	-	-	5	-
Excavators	3	4	5	4	-	-	-	4	5	4
Excavators with hammers	-	1	2	-	-	-	-	-	2	-
Backhoes	-	4	4	6	4	-	-	-	4	-
825 Compactor	-	-	-	-	-	-	1	2	-	2
Crushing plant	-	1	1	-	-	-	-	-	1	-
Concrete Batch plant	-	1	1	1	-	-	-	-	1	-
Concrete agitators (or similar)	-	5	5	10	3	-	-	-	5	-
Concrete pumps	-	4	4	10	3	-	-	-	4	-
Concrete saws	-	4	2	6	2	-	-	-	2	-

Equipment	Early Works			Construction Phase A				Construction Phase B		
	Site Preparation activities	Completion of Site Preparation activities	Bulk earthworks, drainage and utilities	Construction and internal fit-out of warehousing	Miscellaneous construction and finishing works	Material Delivery	Stockpiling	Construction of the Moorebank Avenue diversion road	Bulk earthworks, drainage and utilities	Pavement works along Moorebank Avenue
Air compressors	-	3	4	20	4	-	-	-	4	-
Jackhammers	-	-	-	6	3	-	-	-	-	-
Dozers	-	3	4	-	-	-	1	2	4	2
Mulchers	-	3	-	-	-	-	-	-	-	-
20-40 tonne articulated tipper trucks	4	10	10	-	-	-	-	-	10	-
Scrapers	-	5	6	-	-	-	-	-	6	-
Graders	4	4	4	2	-	1	-	4	4	4
Water trucks	1	5	5	2	2	1	1	2	5	2
Piling rigs	-	1	3	2	-	-	-	-	3	-
Forklifts	-	3	3	20	3	-	-	-	3	-
Small earthmoving equipment	3	6	20	20	6	-	-	-	20	-
Welder	-	10	10	20	5	-	-	-	10	-
Road Sweeper	-	-	-	-	-	-	-	-	-	-
Road profiler	-	-	-	-	-	-	-	1	-	1
Rubber roller	-	-	-	-	-	-	-	1	-	1
Lighting towers	-	-	-	-	-	4	4	-	-	-
Generators	-	-	-	-	-	2	4	-	-	-
Helicopter, Airbus AS350D1 or Bell 206L4	-	-	-	1	-	-	-	-	-	-
Combined SWL for Works Period (dBA)	117	127	129	124*	118	108	110	122	129	122

* Note: The combined SWLs provided in Table 32 are based on a conservative worst-case scenario (derived from the EIS) reflective of the concurrent operation of all plant. The operation of a helicopter is not included in the combined SWL for the relevant works period as the helicopter will not be used concurrently with all other plant and equipment depicted in Table 32.

3.3.4 Assessment of Construction Noise during Standard Hours

Consistent with the requirements of the ICNG, construction noise impacts are considered based on a worst-case assessment corresponding to plant and equipment operating on part of the site nearest to sensitive receivers.

The ICNG recommends that realistic worst case or conservative noise levels should be predicted for assessment locations representing the most noise exposed residential or other sensitive land uses. For the construction site, residential or other sensitive land uses have been grouped into receiver areas or “catchments” which comprise those receivers which would experience a similar level of construction noise. For each receiver area, the noise levels are predicted at the most noise exposed location. For most construction activities, it is expected that the actual construction noise levels may be lower than predicted at the most exposed receiver or location – as the noise levels presented in this document are based on a realistic worst case assessment.

The predicted $L_{Aeq, 15min}$ noise levels at sensitive receivers during standard hours for each specified works category is presented in Table 33. A cumulative noise level impact assessment for construction is presented in Section 3.4. The cumulative noise level impact assessment for construction undertaken during preparation of this plan did not consider use of a helicopter. Notwithstanding, a separate construction noise and vibration impact statement (CNVIS) has been undertaken to consider potential noise and vibration impacts of a helicopter (see Appendix D).

Table 33 indicates that predicted $L_{Aeq, 15min}$ construction noise levels comply with the established NML at all receivers.

Table 33 Predicted Construction Noise Levels During Standard Hours

Equipment	Early Works	Construction Phase A					Construction Phase B				Noise Management Level (NML) L _{Aeq} , 15min
	L _{Aeq} , 15min	L _{Aeq} , 15min					L _{Aeq} , 15min				
	Site Preparation activities	Completion of Site Preparation activities	Bulk earthworks, drainage and utilities	Construction and internal fit-out of warehousing	*Miscellaneous construction and finishing works	Worst Case Cumulative	Construction of the Moorebank Avenue diversion road	Bulk earthworks, drainage and utilities	Pavement works along Moorebank Avenue Works	Cumulative	
Wattle Grove	39	49	51	46	41	52	38	51	38	51	52
Wattle Grove North	34	45	41	41	36	44	35	46	35	46	46
Casula	36	47	49	43	38	50	41	49	41	50	51
Glenfield	25	35	37	28	26	38	30	37	30	38	54
S1	34	44	46	41	35	47	39	45	39	46	55
S2	32	42	44	39	34	45	37	44	37	45	55
I1	61	72	74	68	63	75	66	74	66	75	75
I2	62	72	74	69	63	75	57	74	57	75	75
I3	40	51	49	47	42	54	41	53	41	53	75

*Note: The cumulative assessments provided in Table 33 are based on conservative worst-case scenario noise assessments (derived from the EIS). The operation of a helicopter is not included in the calculation of the cumulative assessment for the relevant works period as the helicopter will not be used concurrently with other plant and equipment depicted in Table 32.

3.3.5 Potential Construction Traffic Noise Impacts

3.3.5.1 Construction Traffic Generation

During the construction of the Project, all heavy vehicles, and the majority of light vehicles, will travel to and from the site via the M5 Motorway and Moorebank Avenue. Additionally, a small number of light vehicles will travel along Anzac Road, east of Moorebank Avenue, and along Moorebank Avenue, north of the M5 Motorway. No heavy vehicles, associated with the construction of the Project, will travel along Anzac Road, or along Moorebank Avenue, north of the M5 Motorway.

The existing and projected daily traffic volumes, and percentage heavy vehicles, along the specified roads, for the construction of the Project, are presented in Table 34. It is not yet known whether heavy construction vehicles will travel to the site, along the M5 Motorway, from the east or the west. This will depend upon factors such as the construction contractor, and the source(s) of fill. Therefore, the projected construction traffic volumes along the M5 Motorway, presented in Table 34, are based on all heavy construction vehicles travelling along the M5 Motorway both east and west of Moorebank Avenue. Such a scenario may not eventuate in practice, and therefore, the assessment of construction traffic noise along the M5 Motorway is conservative.

A Driver's Code of Conduct has been prepared as an Appendix to the Construction Traffic Access Management Plan (CTAMP) to assist in the management of potential traffic and traffic noise related impacts.

Table 34 Construction Traffic Volume and % Heavy Vehicles

Location	Time ¹	Existing (no Development)		Future (with Development)	
		Volume	%Heavy	Volume	%Heavy
M5 Motorway – East of Moorebank Avenue	Day	106,344	9.7	107,370	10.5
	Night	21,060	13.2	21,201	13.5
M5 Motorway – West of Moorebank Avenue	Day	124,264	10.2	125,290	10.8
	Night	24,036	11.5	24,177	11.8
Moorebank Avenue – North of M5 Motorway	Day	26,892	10.0	26,953	10.0
	Night	6,308	10.0	6,345	9.9
Anzac Road – East of Moorebank Avenue	Day	8,991	4.6	9,018	4.6
	Night	2,109	4.6	2,125	4.6

Source: Arcadis

1. Day = 7.00am – 10.00pm, Night = 10.00pm – 7.00am

3.3.5.2 Predicted Increases in Road Noise Levels

Using the data in Table 35, the increases in road noise levels along the M5 Motorway, Moorebank Avenue and Anzac Road, during the construction of the Project, have been calculated. The calculations have been conducted using the Calculation of Road Traffic Noise (CORTN) algorithm, and are based upon the following assumptions:

- Vehicle speeds are 100 km/h along the M5 Motorway and 60 km/h along Moorebank Avenue and Anzac Road.
- Typical receiver setbacks are approximately 25 metres along the M5 Motorway and approximately 12 metres along Moorebank Avenue and Anzac Road. It is important to highlight that receiver setbacks are important when calculating absolute road noise levels, however setbacks are not important when calculating increases in road noise levels due to changes in traffic volume and mix.

The predicted increases in road noise levels, due to the construction of the Project, are shown in Table 35.

Table 35 Increases in Road Noise Levels During Construction

Location	Predicted Increase (dBA)	
	Day ¹	Night ¹
M5 Motorway – East of Moorebank Avenue	0.1	0.0
M5 Motorway – West of Moorebank Avenue	0.2	0.1
Moorebank Avenue – North of M5 Motorway	0.0	0.1
Anzac Road – East of Moorebank Avenue	0.0	0.0

1. Day = 7.00am – 10.00pm, Night = 10.00pm – 7.00am

Table 35 shows that increases in road noise levels along the M5 Motorway, Moorebank Avenue, and Anzac Road are considerably less than 2 dB. Therefore, no mitigation of traffic noise levels, due to the construction of the Project, has been considered.

3.3.6 Potential Construction Vibration Impacts

Vibration-intensive plant that will be used during construction will include:

- Vibratory rollers
- High-energy impact compaction equipment
- Jack-hammering.

3.3.6.1 Vibration Safe Working Distances

Table 36 defines typical safe working distances for vibration intensive activities. These safe working distances are defined for damage (DIN 4150-3) and human comfort (the NSW Vibration Guideline). The safe working distances for cosmetic damage will be complied with at all times.

Table 36 Safe Working Distances

Plant Item	Rating/Description	Safe Working Distance (m)			
		Pipework and Infrastructure (DIN 4150-3)	Buildings used for commercial purposes, industrial buildings, and buildings of similar design (DIN 4150-3)	Dwellings and buildings of similar design and/or occupancy (DIN 4150-3)	Human Comfort (the NSW Vibration Guideline)
Vibratory Roller	< 50 kN (Typically 1-2 tonnes)	1 m	2 m	6 m	15 m to 20 m
	< 100 kN (Typically 2-4 tonnes)	1 m	2 m	8 m	20 m
	< 200 kN (Typically 4-6 tonnes)	1 m	3 m	15 m	40 m
	< 300 kN (Typically 7-13 tonnes)	1 m	4 m	19 m	100 m
	> 300 kN (Typically 13-18 tonnes)	1 m	4 m	25 m	100 m
	> 300 kN (> 18 tonnes)	1 m	1 m	31 m	100 m
High Energy Impact Compaction ¹	100 kW Tractor (Towing Equipment)	2m	3 m	10 m	50 m
Small Hydraulic Hammer	(300 kg - 5 to 12t excavator)	1 m	1 m	3 m	7 m
Medium Hydraulic Hammer	(900 kg – 12 to 18t excavator)	1 m	2 m	9 m	23 m
Large Hydraulic Hammer	(1600 kg – 18 to 34t excavator)	1 m	4 m	24 m	73 m

Plant Item	Rating/Description	Safe Working Distance (m)				Human Comfort (the NSW Vibration Guideline)
		Pipework and Infrastructure (DIN 4150-3)	Buildings used for commercial purposes, industrial buildings, and buildings of similar design (DIN 4150-3)	Dwellings and buildings of similar design and/or occupancy (DIN 4150-3)		
Vibratory Pile Driver	Sheet piles	1 m	1 m to 4m	2 m to 20 m	20 m	
Pile Boring	≤ 800 mm	1 m	1 m	2 m	n/a	
Jackhammer	Hand held	1 m	1 m	1 m	Avoid contact with structure	

Note 1: Data supplied by Day Design (ref: 6033-7.1L REV C)

For general construction and roadworks, it is not expected that the cosmetic damage and human comfort criteria will be exceeded as the safe working distances specified in Table 36 will be able to be maintained.

In areas where residential buildings and or commercial buildings are located less than 100 m from areas where vibratory rollers are proposed, all feasible and reasonable mitigation measures will be implemented including:

- Selection of an appropriate-sized vibratory roller
- The use of lower vibration settings or static rolling
- Verification of vibration levels via monitoring.

In relation to human comfort, the safe working distances above relate to continuous vibration. For most construction activities, vibration emissions are intermittent in nature and for this reason, higher vibration levels, occurring over shorter periods may be allowed. A targeted assessment may be undertaken during works to evaluate any decrease in human comfort safe work distance offsets and to determine if any other mitigation or management measures are required to minimise the potential impacts.

3.3.6.2 Heritage Listed Structures

Kitchener House is located at 208 Moorebank Avenue, and is of heritage significance. Vibration generating works associated with the Moorebank Avenue /M5 Motorway Intersection would potentially occur within 100 m of Kitchener House.

If works are within 100 m of Kitchener House, the following approach to manage potential vibration impacts shall be conducted prior to the commencement of those works:

1. Undertake pre-construction dilapidation surveys of Kitchener House (to be conducted by suitably qualified person);
2. Obtain a structural engineering report to confirm structural integrity of the building and confirm if item is 'structurally sound' (or alternatively adopt the more stringent criteria specified in (5) below).
3. Seek advice of a heritage specialist on methods and locations for installing equipment used for vibration and movement of heritage-listed structures.
4. If Kitchener House is 'structurally sound', the screening criteria will apply, or
5. If Kitchener House is 'structurally unsound' or if a structural engineering report is not conducted, the conservative cosmetic damage objectives of 3 mm/s peak component particle velocity will be adopted.
6. Conduct continuous vibration monitoring for the period where construction works occur within 100 m.

3.4 Cumulative Impacts

Assessment of potential cumulative noise and vibration impacts was undertaken by Wilkinson Murray as part of the preparation of the EIS (Refer to Section 19 and Appendix L of the MPE Stage 2 EIS).

The cumulative construction noise scenario accounted for the cumulative predicted noise impacts associated with Project construction activities, MPW Early Works activities, MPE Stage 1 and MPW Stage 2 construction works. The highest predicted $L_{Aeq, 15min}$ construction noise levels at sensitive receivers during relevant phases for each concurrent project were used for the assessment to attain a worst-case construction cumulative scenario to assess against the NMLs established for the Project.

The worst-case cumulative construction noise levels for each of the selected receivers are presented in Table 37. The results show that cumulative construction noise levels are predicted to comply with the NML at all receivers, except for the most sensitive receivers in Casula, where cumulative construction noise levels may exceed NML by up to 2dB. This is considered a negligible exceedance.

Table 37 Worst-case cumulative construction noise levels

Receiver	Predicted $L_{Aeq, 15min}$ Noise Levels					NML	Exceedance
	MPE Stage 2 Proposal	MPW Early Works	MPW Stage 2	MPE Stage 1	Cumulative		
Wattle Grove	49	38	37	40	50	52	0 dB
Wattle Grove North	45	38	37	27	46	46	0 dB

Receiver	Predicted $L_{Aeq, 15min}$ Noise Levels					NML	Exceedance
	MPE Stage 2 Proposal	MPW Early Works	MPW Stage 2	MPE Stage 1	Cumulative		
Casula	47	44	50	40	53	51	2 dB
Glenfield	35	40	36	32	43	54	0 dB
S1	44	49	49	39	53	55	0 dB
S2	42	49	48	37	52	55	0 dB

Due to the large separation distances between the Project and nearby sensitive receivers, construction vibration impacts are considered negligible.

Management measures (See Section 3.5) will be implemented prior to and during construction to avoid and minimise impact on noise and vibration on surrounding sensitive receivers. Appropriate implementation of these controls would reduce the risk of noise and vibration impacts during the construction phase of the Project.

3.5 Management Measures

This section describes the overall approach to managing and mitigating noise and vibration impacts as a result of the Project based on the predicted impacts as summarised in this CNVMP.

The management measures discussed in this section are based on the applicable EIS, RtS, NVIA, CoC, the ICNG as well as the requirements and standards of SIMTA and its contractors.

The noise predictions in this CNVMP were developed to address the assessment requirements documented in the ICNG (Section 2.1.1). It also identifies the thresholds by which impacts can be quantified and the level of mitigation and management that is required for each stage of works.

The mitigation and management measures are consistent with the intent and recommendations of the ICNG for own best-practice techniques to be developed for managing construction noise and vibration and implementing feasible and reasonable mitigation measures.

The noise assessment and mitigation approach has been adopted, in conjunction with the requirements of the ICNG, for the measured described in this CNVMP.

Table 10 includes the Final Compilation of Mitigation Measures (FCMMs) related to noise and vibration that were established as part of the MPE Stage 2 RtS. These mitigation measures have been included in Table 38 and references to where the FCMMs are addressed have also been included in Table 38.

The mitigation measures that will be adopted during the Project are described in Table 38 and will be implemented for the works to manage and potentially reduce construction noise and vibration impacts.

Table 38 Management Measures

ID	Management Measure	Timing	Responsibility	Reference
NV1	<p>The approved hours of work, the name of the site/project manager, the responsible managing company, its address and 24 hour contact phone number for any inquiries, including construction/noise complaints will be displayed at the site, typically near site entrance points.</p>	Pre-construction and during construction	Contractor's Community Liaison Manager (Contractor's CLM)	MPW C'th CoA 6 (c) Good practice
NV2	<p>Notification of potentially affected people and the relevant council about construction commencement, out-of-hours works and high noise works will occur in accordance with the Construction Community Communication Strategy and will detail the following at least 14 days prior to commencement of relevant works:</p> <ul style="list-style-type: none"> • Nature of the construction stages • Hours of work • Duration of noisier activities • Measures to minimise noise impacts <p>The Project website, information and response lines, email distribution list and any applicable community based forums will also be utilised for this purpose.</p>	Pre-construction and during construction	Contractor's Community Liaison Manager (Contractor's CLM)	CoC B77 CoC B155 FCMM 2A MPW C'th CoA 6 (c)
NV3	<p>In the event of any noise or vibration related complaint or adverse comment from the community, noise and ground vibration levels (as relevant) will be investigated. Remedial action will be implemented where feasible and reasonable. The procedures for managing complaints will be provided within the Construction Community Communication Strategy.</p>	Construction	Contractor's Community Liaison Manager (Contractor's CLM)	CoC B76 CoC B155 FCMM 2D
NV4	<p>A site-specific induction will be provided to all site personnel, contractors and sub-contractors with an emphasis on understanding and managing noise impacts from the work activities being undertaken.</p> <p>This will include the location of noise sensitive receptors, specific mitigation measures, site hours of operation, noise complaints procedure, etc. as well as the consequences of not complying with these mitigation measures.</p>	Pre-construction	Contractor's Environmental Manager (Contractor's EM)	This plan FCMM 2A MPW C'th CoA 6 (c)

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ID	Management Measure	Timing	Responsibility	Reference
NV5	<p>All general construction works and activity will be scheduled to occur during the following periods, unless authorised as out-of-hours works or as otherwise specified in an environment protection licence:</p> <ul style="list-style-type: none"> 7:00am to 6:00pm Mondays to Fridays, inclusive; 7:00am to 1:00pm Saturdays; and at no time on Sundays or public holidays. 	During construction	Contractor's EM Site Supervisor	<p>CoC B65 FCMM 2A MPW C'th CoA 6 (c)</p>
NV6	<p>Construction works and activity with the potential to generate high noise impact (including impulsive or tonal noise emissions) will be scheduled to occur during the following periods:</p> <ul style="list-style-type: none"> between the hours of 8:00 am to 5:00 pm Monday to Friday; between the hours of 8:00 am to 1:00 pm Saturday; and in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block. <p>Blasting is not permitted at any time.</p>	During construction	Contractor's EM Site Supervisor	<p>CoC B66 MPW C'th CoA 6 (c)</p>
NV7	<p>Out-of-hours works will only be undertaken in the following circumstances:</p> <ul style="list-style-type: none"> for the delivery or despatch of materials as requested by the NSW Police Force or other public authorities for safety reasons where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm where they are undertaken in accordance with the Out-Of-Hours Work Protocol 	During construction	Contractor's EM Site Supervisor	CoC B67
NV8	<p>Where feasible and reasonable, plant and equipment will be selected, operated and maintained to be minimise noise and vibration, including:</p> <ul style="list-style-type: none"> Select plant and equipment based on least noise and vibration emission levels Use of low-vibration generating equipment/vibration dampeners or alternative construction methodology where necessary 	During construction	Contractor's EM Site Supervisor	<p>CoC A32 CoC B75 CoC B77 (i) FCMM 2A MPW C'th CoA 6 (c)</p>

ID	Management Measure	Timing	Responsibility	Reference
	<ul style="list-style-type: none"> • Use of noise source controls, such as the use of residential class mufflers and engine covers, to reduce noise from all plant and equipment including excavators and trucks • Maintenance, repair or replacement of plant and equipment if it becomes noisy • Use of quietest suitable and available construction equipment • Use of silenced generators and compressors • Shut down of equipment when not in use for extended periods of time • Ensuring road plates are properly installed and maintained. • Use of non-tonal movement alarms in place of reversing beepers, or alternatives such as reversing cameras and proximity alarms, unless tonal alarms are mandated by legislation. <p>All plant and equipment used at the site or to monitor the performance of the development will be:</p> <ul style="list-style-type: none"> • maintained in a proper and efficient condition; and • operated in a proper and efficient manner. 			
NV9	<p>Where feasible and reasonable, plant and equipment will be selected to have operating Sound Power Levels compliant with the values presented in Table 31 of this Plan in the first instance, Table 2 in the Transport for NSW <i>Construction Noise Strategy</i> or AS 2436-1981 2010 <i>Guide to noise and vibration control on construction, demolition and maintenance sites</i>. Attended monitoring of will be conducted within 28 days of significant new plant / equipment arriving at the site.</p>	Pre-construction	Contractor's EM	FCMM 2A
NV10	<p>Where feasible and reasonable, the following work practices will be adopted to minimise noise and vibration:</p> <ul style="list-style-type: none"> • Where practical, undertake the noisiest works during standard hours. • Avoid simultaneous operation of noisy plant. 	Pre-construction	Contractor's EM	B72 (b) (c) B77 (i) FCMM 2A MPW C'th CoA 6 (c) MPW Stage 1 REMM 5S

ID	Management Measure	Timing	Responsibility	Reference
	<ul style="list-style-type: none"> • Maximise the offset distance between noisy plant and adjacent sensitive receptors • Throttle down or switch off plant when not in use • Examine, and implement where feasible and reasonable, alternative work practices that generate less noise. • Noise-emitting (including directional noise emitting) plant and equipment to be directed away from sensitive receivers, or behind barriers. To be effective for ground level noise, the screens will be lined with acoustic absorptive material, be at least 2 m in height and installed within 5 m of the noise source • "Clustering" of noisy plant or processes will be limited. • Adhere to the safe working distances identified in the CNVMP for vibration intensive plant • Select materials which require fewer vibration intensive activities to occur (such as materials requiring less compaction). • Arrange the work site to minimise the use of movement alarms on vehicles and mobile plant. • Where there are no overriding project constraints, program works so as to not affect any sensitive receiver for more than a total of six nights in any four week period. • Avoid dropping materials from a height, dropping or dragging road plates. • Talk to workers about noise from the works and how it can be reduced. • Use radios and stereos indoors rather than outdoors. • Contact potentially noise affected receivers at the earliest possible time before any site work begins. • Inform potentially noise affected receivers about the nature of the construction stages and the duration of noisier activities – for example, excavation and rock-breaking. • Describe to potentially affected receivers any noise controls, such as temporary noise walls or use of silenced equipment. 			

ID	Management Measure	Timing	Responsibility	Reference
	<ul style="list-style-type: none"> • Keep potentially noise affected receivers up to date on progress. • Provide contact details on a site board at the front of the site and maintain a complaints register suited to the scale of works. • Ask about any concerns that potentially affected receivers may have and discuss possible solutions. • Provide potentially affected receivers with access to the latest copy of the CNVMP. • Keep staff who receive complaints informed regarding current and upcoming works and the relevant contacts for these works. • Handle complaints in a prompt and responsive manner. • Where there are complaints about noise from an identified work activity, review and implement, where feasible and reasonable, actions additional to those described above to minimise noise output. 			
NV11	<p>Construction vehicles will be operated so as to minimise any construction noise impacts from the construction site. To achieve this the following will occur:</p> <ul style="list-style-type: none"> • Toolbox talks for drivers and operators • No use of compression brakes on the site or on nearby roads • Loading and unloading of materials/deliveries will occur as far as possible from receptors. • Selection of site access points and roads which are as far as possible away from noise sensitive receptors. • Shielding of dedicated loading/unloading areas to be shielded if close to noise sensitive receptors (such that exceedance of NMLs is expected) • Fitting of delivery vehicles with straps rather than chains for unloading, wherever feasible and reasonable. • Make delivery personnel and truck drivers aware of approved haulage routes and access in and out of the construction site. • Prevent vehicles and plant queuing and idling outside the site prior to the morning start time. 	During construction	Contractor's EM Site Supervisor	CoC 75 CoC 76 MPW C'th CoA 6 (c)

ID	Management Measure	Timing	Responsibility	Reference
	<ul style="list-style-type: none"> • Prevent vehicles and plant associated with the works idling in nearby streets and residential areas • Traffic speeds will be sign-posted, and drivers made aware of appropriate speeds and driving practices • Issue pre-determined delivery times to suppliers and use radio communication to confirm status of the delivery. • Contracts will include provisions to deal with any unsatisfactory noise performance for specific vehicles and/or operators and require the use of non-tonal reversing alarms • The Truck Drivers Protocol presented in the CTAMP must be adhered to 			
NV12	If noise management levels are likely to be exceeded, stationary noise sources will be enclosed or shielded whilst ensuring that the work health and safety of workers is maintained.	During construction	Contractor's EM	CoC B73
NV13	If noise management levels are likely to be exceeded, structures will be used to shield residential receptors from noise. This may include site shed placement; earth bunds; fencing; erection of operational stage noise barriers (where practicable) and consideration of site topography when siting plant.	Pre-construction and during construction	Contractor's EM	CoC B73 MPW C'th CoA 6 (c)
NV14	A targeted assessment will be undertaken during works to evaluate any proposed decrease in damage or human comfort safe work distance offsets and to determine if any other mitigation or management measures are required to address the potential impacts.	Construction	Contractor's EM	This plan
NV15	<p>In areas where residential buildings and or commercial buildings are located less than 100 m from areas where vibratory rollers are proposed, all feasible and reasonable mitigation measures will be implemented including:</p> <ul style="list-style-type: none"> • Selection of an appropriate-sized vibratory roller; • The use of lower vibration settings or static rolling; and/or • Verification of vibration levels via monitoring. 	Construction	Contractor's EM	CoC B77 (i) This plan

ID	Management Measure	Timing	Responsibility	Reference
NV16	<p>If works are within 50 m of Kitchener House, the following approach to manage potential vibration impacts shall be conducted prior to the commencement of those works:</p> <ol style="list-style-type: none"> 1. Undertake pre-construction dilapidation surveys of Kitchener House (to be conducted by suitably qualified person); 2. Obtain a structural engineering report to confirm structural integrity of the building and confirm if item is 'structurally sound' (or alternatively adopt the more stringent criteria specified in (5) below). 3. Seek advice of a heritage specialist on methods and locations for installing equipment used for vibration and movement of heritage-listed structures. 4. If Kitchener House is 'structurally sound', the screening criteria will apply, or 5. If Kitchener House is 'structurally unsound' or if a structural engineering report is not conducted, the conservative cosmetic damage objectives of 3 mm/s peak component particle velocity will be adopted. 6. Conduct continuous vibration monitoring for the period where construction works occur within 100 m. 7. Undertake post-construction dilapidation surveys (to be conducted by suitably qualified person) <p>In the event an exceedance of established vibration criteria does occur, surveys will be undertaken immediately.</p>	Construction	Contractor's EM	CoC B77 (i) This plan

4 MONITORING AND REPORTING

4.1 Monitoring

Noise and vibration monitoring will be conducted as per the requirements of this CNVMP. Noise measurements shall be undertaken consistent with the procedures documented in AS1055.1-1997 Acoustics - Description and Measurement of Environmental Noise – General Procedures. Vibration measurements shall be undertaken in accordance with the procedures documented in the EPA's Assessing Vibration - a technical guideline (2006), DIN4150 Structural Vibration – Part 3 Effects of Vibration on Structures and BS7385 Part 2 Evaluation and measurement for vibration in buildings. Monitoring during extended hours is described in Section B.5.

4.1.1 Maximum Noise Levels for Plant and Equipment

Attended noise measurements will be undertaken within a period of 28 days of significant equipment arriving on site to establish the Sound Levels and to confirm that the operating noise levels comply with the values presented in Table 31 of this Plan.

Plant and equipment noise monitoring will ensure the L_{Aeq} and LA_{90} parameters are recorded as a minimum, with $L_{Aeq, 15min}$ values inferred by extrapolation or calculation as necessary. The L_{Amax} and $L_{A1, 15min}$ parameter should also be recorded for each measurement. The time and location of the monitoring will also be noted.

The plant and equipment measurement sample height will be 1.5 m above ground level, unless an alternate height is specified by the operator that more accurately captures emissions data for the item being considered. All measurements will be completed with the sound level meter mounted to a tripod (if possible, hand held measurements are acceptable if the assessment height or position cannot be achieved using a tripod) and with a windscreen fitted.

The duration of each plant and equipment measurement sample will be selected by the operator to ensure the noise emission from the item being considered is adequately recorded. To avoid misunderstanding, a shorter duration less than 15 minutes may be adopted for plant and equipment noise level tests.

4.1.2 Attended Community Noise Monitoring

4.1.2.1 Triggers for Attended Community Noise Monitoring

Attended noise monitoring will be undertaken in the community in following circumstances:

- In response to a complaint
- Where OOHW is approved and attended monitoring is determined to be required
- During EHW.

4.1.2.2 Attended Noise Monitoring Locations

The attended measurements will typically be conducted at the potentially most affected receivers in each NCA, as follows:

- NCA1: 15 Larra Court, Wattle Grove
- NCA2: 6 Namoi Court, Wattle grove
- NCA3: 2 Rushton Place, Casula
- NCA4: 14 Goodenough Street, Glenfield.

In addition to the locations above, attended noise measurements will be conducted at an additional location in NCA3, at the corner of Blackwood Avenue and Canberra Avenue, Casula. This location has been added to account for the potential for complex topography to influence construction noise impacts in NCA3.

4.1.2.3 Attended Noise Monitoring Methodology

Community noise monitoring will ensure the $L_{Aeq, 15min}$ and $L_{A90, 15min}$ parameters are recorded as a minimum. The site noise level contribution ($L_{Aeq, 15min}$) shall be determined in the absence of any influential source not associated with the Project works for direct comparison to the relevant criteria. The L_{Amax} , L_{Amin} , L_{A1} and L_{A10} parameters will be recorded for each measurement with the $L_{A1, 1minute}$ parameter measured directly or calculated where possible and if applicable.

The community noise measurement sample height will be 1.5 m above ground level. The duration of each community noise measurement sample will be 15 minutes. All measurements will be completed with the sound level meter mounted to a tripod and with a windscreen fitted. The device microphone will be focused on the noise emission centre of the equipment being tested. No noise monitoring will be completed during periods where wind speeds exceed 5 m/s or during any rain events.

Unless monitoring locations are pre-determined, the sound level meter will be located 3 to 5 metres away from walls, buildings and other reflecting surfaces where feasible. Noise monitoring will be undertaken at the most affected point on or within the property boundary or at the most affected point within 30 metres of the property. Noise monitoring will always be conducted when activities on-site are typical of normal works (i.e. not during respite periods for noisy works or where the measurements are likely to be influenced by noisy short term 'one off' activities).

If community noise monitoring identifies that predicted noise levels are being exceeded, the Construction Contractor will revisit construction practices/sequencing etc. to reduce noise levels, minimise impacts and to enable provision of information on noise levels to surrounding and potentially affected residents should this be required (i.e. on request or following a complaint).

Where OOHW is approved and attended monitoring is determined to be required, attended noise measurements will be conducted at the most affected receptors following the general and community monitoring requirements specified above.

4.1.3 Continuous Noise Monitoring

As required by CoC B64, continuous noise monitoring will be undertaken during early works, fill importation, construction and for at least 12 months following occupation of the entire site at the locations specified above.

Exceedances during site operating hours will be reviewed to determine their source and whether they are attributable to construction activities. Meteorological conditions (average and maximum wind speeds, temperature, precipitation and cloud cover etc.) will also be noted during a review of any exceedances.

Site activity records will be maintained during any noise or vibration monitoring events.

4.1.4 Vibration Monitoring

Additional vibration monitoring of plant or equipment or in the community may be required. Circumstances where this may be required include:

- In response to vibration complaint
- Works occurring near or adjacent to retained heritage structures
- Use of vibration intensive plant needs to occur within the safe working distances specified in this CNVMP
- Attended monthly vibration monitoring during construction.

Vibration monitoring will be conducted as per the requirements of this CNVMP and with due regard to EPA's Assessing Vibration - a technical guideline (2006), DIN4150 Structural Vibration – Part 3 Effects of Vibration on Structures and BS7385 Part 2 Evaluation and measurement for vibration in buildings.

Specific monitoring requirements and measures for heritage and other sensitive structures and residential receivers are described below:

- Should activities with the potential to generate significant vibration events in close proximity to heritage structures and other sensitive structures be identified, vibration testing will be undertaken for the activity at a location away from sensitive buildings or structures.
- The safe working distances for human comfort specified in Table 36 will be used to trigger this testing equipment

- The vibration testing methodology will be established by a suitably experienced person and/or in consultation with a qualified technical specialist.
- The outcomes of the vibration testing may require continuous unattended vibration monitoring to occur for select activities. The methodology for any ongoing vibration monitoring will be established by a suitably experienced person and/or in consultation with a qualified technical specialist.
- Pre- and post- construction dilapidation surveys of sensitive structures where vibration is likely to result in damage to buildings and structures (including surveys being undertaken immediately following a monitored exceedance of the criteria).

A vibration monitoring report will be developed following monitoring and include the following information:

- Relevant guideline or policy that has been applied
- Background vibration measurements that have been undertaken
- Instruments and methodology used for measurements (including reasons for settings and descriptors used and calibration details)
- A site map showing location of vibration sources, measurement locations and receivers (where appropriate);
- Vibration criteria applied
- Vibration measurement results
- A comparison of measured against vibration criteria
- A discussion of proposed mitigation measures, the vibration reduction likely, the feasibility and reasonableness of these measures and how compliance and conformance can be practically determined.

4.1.5 Monitoring Reports

The Contractor's EM will compile a report for the construction noise and vibration compliance monitoring (attended monitoring) every month detailing the community noise monitoring results as well as any other noise and vibration monitoring that was conducted during the reporting period. The report will include information about any exceedances detected and how non-compliances and non-conformances were addressed. Non-conformances, non-compliances and corrective and preventative actions will be managed in accordance to the CEMP section 4.4. This report will be sent to the Principal's Representative.

Monitoring reports will be used to maintain compliance and record the effectiveness of management measures against construction noise impacts. Measures evaluated as being ineffective will be subject to review and trigger the implementation of additional environmental controls during an update of the CNVMP.

4.1.6 Exceedance of Noise and Vibration Management Levels

In the event of an exceedance of noise and vibration management levels, works will cease or reduce immediately at the direction of the Contractor's CM/EM or Site Supervisor. Remedial measures will be implemented prior to recommencing work, and monitoring undertaken to verify noise or vibration levels.

If high noise generating works are shown to exceed the required noise criteria, or if noise complaints are received related to the high noise work, additional mitigation will be implemented for these activities (to ensure compliance with the required noise limits to the satisfaction of the ER), such as:

- Acoustic screening
- Alternate work methodologies
- Alternative plant with lower noise
- Plant and machinery will be checked and verified for noise levels and appropriate exhaust/fittings/noise attenuators.

In the event of appreciable vibration levels arising from construction activities, measures will be put in place to reduce vibration to within acceptable levels. Such measures may include reducing equipment size, changing operational settings, using other plant in lieu of that which is generating the vibration or a combination of these.

4.2 Community Enquiry, Complaints and Incident Management

Community consultation will be undertaken in accordance with the CEMP and Section 3.3.2 and Section 3.3.5 of the Construction Community Communication Strategy (CCCS). Prior to the commencement of high noise activities, notification will be issued to the agreed distribution area specified in Appendix A of the CCCS; 7 days prior to works which may impact on the community or stakeholders.

The objective of the CCCS is to ensure that the community is notified regarding works being undertaken for potentially affected neighbouring property owners and businesses before undertaking major activity or milestones. These may include:

- Commencement and completion of works
- Noisy works
- Out of Hours
- Changes to traffic, parking or access.

Community notifications include all Community Updates, Out-of-Hours notices, project information flyers and other communications material. The notifications will proactively notify the community and key stakeholders of current and forthcoming activities including those that have the potential to impact on the community. All notifications will include the project contact numbers, details of the Project website and an email address to refer any enquiries or complaints.

In the event of a noise or vibration incident or complaint, the response management process summarised in Table 39 will be implemented.

Complaints arising from the Project will be treated sensitively and in a manner, that recognises the potential for noise and vibration to cause environmental impacts. Special consideration will be given to complaints related to noise and vibration during highly intrusive works (particularly those activities when increased impacts are predicted) in order that additional mitigation can be implemented in a timely manner.

Various lines of communication will be made available for enquiries and complaints during construction of the Project. This will include a 24-hour telephone number for enquiries and complaints. Any complaints received during the works will be dealt with in accordance with the Project Complaints management protocols outlined in the Construction Community Communication Strategy.

Table 39 Noise and Vibration Incident / Complaint Response Management

Incident Type	Response	Responsibility
Noise levels from construction activities exceed noise goals and criteria	Noisy activities will cease or reduce under direction of the Contractor’s EM/CM or Site Supervisor. Remedial measures will be implemented prior to recommencing work, and monitoring undertaken to verify noise levels. All plant and machinery will be checked and verified for noise levels and appropriate exhaust/fittings/noise attenuators. Works methodologies will be reviewed and amended if required.	Contractor’s EM Site Supervisor
Community complaint relating to noise or vibration	Any noise or vibration complaints received from the community or adjacent stakeholders will be recorded and responded to within two hours in accordance with the complaints management system for the Project. Attended noise or vibration monitoring will be offered if the complaint is not immediately resolved. Noise or vibration intensive activities will cease or reduce under direction of the Contractor’s EM or Site Supervisor. Remedial measures will be implemented prior to recommencing work, and monitoring undertaken to verify noise levels.	Contractor’s EM Contractor’s CLM

Incident Type	Response	Responsibility
	All plant and machinery will be checked and verified for noise levels and appropriate exhaust/fittings/noise attenuators. Works methodologies will be reviewed and amended if required.	
Negotiations with specific Receptors	Additional noise and vibration mitigation measures may be negotiated with sensitive receptors if requested or as required to address complaints (if received).	Contractor's CLM
Vibration causing structural damage	Activities causing significant vibration at off site buildings (however unlikely) will cease under direction of the Contractor's EM or Site Supervisor. Any occupants of buildings may be evacuated with due consideration to safety, and the area secured to prevent unauthorised access. A structural assessment will be undertaken and the results compared with any previous condition survey; and if any damage is associated with construction, rectification work will be implemented or compensation agreed.	Contractor's EM Site Supervisor

4.3 Review and Improvement

Any amendments to the CNVMP and associated documentation will be undertaken in accordance with Section 1.2.7 of the CEMP.

Management reviews will be undertaken as part of the continual improvement process. The reviews will be initiated by the Contractor's EM and includes relevant project team members and stakeholders and will be undertaken in accordance with Section 4.5 of the CEMP.

The review of the CNVMP will include:

- Consideration of the general progress of work, significant changes in construction activities and the level of overall environmental risk
- Consideration of monitoring, inspection and audit results
- Consideration of recent and relevant incidents and any lessons learnt
- Consideration of any new regulatory obligations
- Consideration of any recorded noise complaints
- A review of the effectiveness of environmental controls, including management measures
- Consideration of changes in operational needs such as resourcing
- Feedback from relevant stakeholders.

The outcomes of the environmental reviews may trigger the amendments to this CNVMP and related documentation, revision to the Project's environmental management system, review of the risk assessment, re-evaluation of the project objectives and targets as well as input into other project documents. management system, review of the risk assessment, re-evaluation of the project objectives and targets as well as input into other project documents.

Noise and vibration monitoring results will be reviewed by the Contractor's EM to evaluate the effectiveness of noise management measures and to analyse results against impacts detailed in Section 3.3. If additional noise management measures are identified, this plan would be reviewed and amended where required.

Where amendments require changes to the Truck Driver Protocol, the relevant sections of the Construction Traffic and Access Management Plan must also be updated.

4.4 Non-compliances, Non-conformance and Actions

It is the responsibility of all personnel to report non-compliances and non-conformances to their Site Supervisor and/or the Contractor's EM.

Non-compliances, non-conformances and corrective and preventative actions will be conducted in accordance with Section 4.4 of the CEMP.

APPENDIX A OUT OF HOURS WORKS PROTOCOL

A.1 Preamble

This Out of Hours Works (OOHW) Protocol has been developed to assist with compliance of environmental legislation, project obligations and to effectively manage potential environmental impacts associated with noise during in the course of construction of the Project. It has been prepared in accordance with CoC B68 and CoC B77(e).

A.2 Objectives

This Protocol outlines the project requirements for construction working hours and documents a process to be implemented when work outside of standard hours is required.

The key objective of the Protocol is to ensure that impacts to the local community are avoided and minimised and the requirements of CoC B68 and CoC B77(e) are met. Specific objectives include:

- Minimising potential adverse noise impacts to the community
- Identify sensitive receivers and ensure appropriate noise control measures are implemented during out of hours construction activities
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements.

A.3 Compliance Matrix

Table A-1 shows the requirements for the OOHW in CoC B68 and CoC B77(e) and where the condition has been responded to in this Protocol.

Table A-1 Compliance Matrix OOHW Protocol

Condition Number	Condition	Document Reference	How Addressed
B68	The Applicant must prepare an Out-of-Hours Work Protocol for any work undertaken outside the hours specified in condition B65 or outside the circumstances specified under condition B67. An Out-of-Hours Work Protocol must provide for the assessment, management and monitoring of out of hours work, including:	Appendix A	The Out-of-Hours Work Protocol is included in Appendix A and addresses the requirements of CoC 68.
	a) Where works are shown to be inaudible at the nearest sensitive receivers and vibration levels do not exceed those stipulated by Table 2.2 and Table 2.4 of Assessing Vibration: a technical guide (DEC, 2006);	Table A-2, Number 4	Table A-2, Number 4
	b) Where a negotiated agreement has been arranged with affected receivers;	Table A-2, Numbers 6 and 7	Table A-2, Numbers 6 and 7
	c) Where noise can be shown to satisfy the noise management levels specified in the <i>Interim Construction Noise Guideline</i> (ICNG, DECC, 2009) at non-residential land uses; or,	Table A-2, Number 5	Table A-2, Number 5
	d) Where works are undertaken as part of an Extended Hours Work Plan approved as part of the Out-of-Hours Work Protocol .	Table A-2, Number 8	Table A-2, Number 8
B77 (e)	An Out-of-Hours Work Protocol as referenced in condition B68 for the assessment, management and approval of works outside standard construction hours,		

Condition Number	Condition	Document Reference	How Addressed
	for the Secretary’s approval. The Out-of-Hours Work Protocol must:		
	i. Detail assessment of out-of-hours work against the relevant noise and vibration criteria;	Table A-2	Table A-2
	ii. Provide detailed mitigation measures for any residual impacts (that is, additional to general mitigation measures), including extent of at-receiver treatments;	Table A-2 and Section A.5	Table A-2 and Section A.5
	iii. Include proposed notification arrangements; and	Table A-2, Number 10	Table A-2, Number 108
	iv. Include an Extended Hours Work Plan as required by condition B69.	Appendix B	Appendix B

A.4 Out of Hours Work Protocol

Exclusions to this Protocol: with due regard to CoC B67 OOHW will be undertaken without further assessment in the following circumstances:

- For the delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons;
- Where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; and
- Where different construction hours are permitted or required under an EPL in force in respect of construction, in which case these construction hours must be complied with.

The Contractor’s EM must submit an OOH works request to the Principal’s Representative at least two weeks prior to works being undertaken (except in emergency circumstances) for endorsement. The Principal’s Representative must submit the OOH request to the ER for information. OOHW periods are detailed in Table 4 of the CNVMP.

Where possible, OOHW will be avoided and scheduled to occur during the approved hours for construction. Where OOHW are needed for the safe and efficient implementation of the Project, or due to exceptional circumstances the level of impacts of OOHW will be considered.

A Construction Noise and Vibration Impact Statement (CNVIS) will be utilised to identify risk of the proposed OOH activity, and whether the application is required to be approved by the Contractor’s or Project Manager’s EM and/or the Environmental Representative (ER), or referred to DP&E.

Table A-2 OOHW Protocol

No.	Step	Detail
1.	Work Identification	<ul style="list-style-type: none"> • Identify work activities requiring OOH and when the work will occur. • Identify the reason why OOHW are needed; does the work proposed need to be completed outside the approved hours of construction or can it be rescheduled for standard working hours. • If the OOHW are essential to the Project, or are required due to exceptional circumstances, prepare and document a justification for the works. • If works fall into the categories identified in the EHWP, then the works are to be carried out under the EHWP.
2.	Assess Alternatives	<p>Assess alternate options that may allow construction to be undertaken within approved hours such as:</p> <ul style="list-style-type: none"> • Using alternate equipment

No.	Step	Detail
		<ul style="list-style-type: none"> • Different construction methods, or • Postponing scheduled works. <p>If no other options are considered practical, consult the PM's Environmental Manager and document, using an Out of Hours form (developed by the Construction Contractor) to provide a description of the works, the expected duration, a list of all noise generating plant, equipment and machinery in use, activities to be undertaken, and all potential mitigation and management measures considered.</p>
3.	Undertake CNVIS	<p>If no alternate options are available / viable, the activity is to be assessed for noise and vibration impacts on the surrounding receptors via a Construction Noise and Vibration Impact Statement (CNVIS) prepared by suitably qualified personnel, taking into account all proposed noise and vibration mitigation measures. The CNVIS will:</p> <ul style="list-style-type: none"> • Identify the closest and/or potentially most affected receptors situated within the potential area of influence of the works; • Predict noise and vibration levels based on the NVIA scenarios or via modelling (or spreadsheet calculation) for new scenarios; • Compare the predicted values to the noise and vibration management levels; • Provide a list of necessary mitigation and management measures that will be required to be implemented. <p>Predictions will account for particularly annoying (tonal, low frequency content or impulsive) work activities by applying a 5 dB(A) penalty to the values for particularly annoying activities.</p> <p>Predictions will account for all potential noise and vibration mitigation and management measures by applying a deduction to the values assessed above for the noise reducing measures that will be implemented.</p> <p>Predictions will be provided to assess potential sleep disturbance impacts, if anticipated.</p> <p>General activities which are inaudible at receptors, including (but not limited to), security operations, monitoring, survey, refuelling, low noise plant maintenance, general site maintenance will not require a CNVIS.</p>
4.	Negligible Impact Works	<p>If the CNVIS shows that construction works will <u>not</u> generate $L_{Aeq, 15minute}$ noise levels more than the rating background level at sensitive receivers, the activity will be considered inaudible. Where works are <u>inaudible at the nearest sensitive receivers and vibration levels will not exceed those stipulated by Table 2.2 and Table 2.4 of Assessing Vibration: A Technical Guide (DECC 2006)</u>, the works will be considered to have negligible impact and referred to the Contractor's EM for review and approval. The Contractor's PM, Principal's Representative and the ER will be provided with the OOHW approval for information.</p>
5.	Low Impact Works	<p>If the CNVIS shows that construction works <u>will generate $L_{Aeq, 15minute}$ noise levels between the rating background level and 5 dB above the rating background level and comply with the Vibration Management Level (VML)</u>, the activity will be considered low impact and referred to the ER for review and approval.</p> <p>In referring the approval to the ER, the Construction Contractor will:</p> <ul style="list-style-type: none"> • Demonstrate the requirement for activities to be conducted outside the approved standard construction hours • Summarise the findings of the CNVIS assessment, and • Detail the mitigation measures to be implemented for the specific OOHW. <p>Where the nature of the activity, the likely impacts and the proposed management measures are considered acceptable by the ER, the works may proceed when ER and Principal's Representative approval is received.</p>
6.	High Impact Works Negotiated agreements achieved with the community	<p>If the CNVIS shows that construction works <u>will</u> exceed NML and/or VML, the activity will be considered high impact and, if negotiated agreements have been reached with affected receivers, referred to ER for review and approval.</p> <p>Where practical, noisy construction work will be undertaken during the less sensitive 6 pm to 10 pm evening period.</p>

No.	Step	Detail
		<p>In referring the approval to ER, the Construction Contractor will:</p> <ul style="list-style-type: none"> • Demonstrate the requirement for activities to be conducted outside the approved standard construction hours; • Summarise the findings of the CNVIS assessment; • Detail the mitigation measures to be implemented for the specific OOHW; and • Detail the negotiated agreements agreed with the community. <p>Where the nature of the activity, the likely impacts and the proposed management measures are considered acceptable, by works may proceed when ER and Principal's Representative approval is received.</p>
7.	<p>High Impact Works</p> <p>Negotiated agreements <u>not</u> achieved with the community</p>	<p>If the CNVIS shows that construction works <u>will</u> exceed NML and/or VML, the activity will be considered high impact and, if negotiated agreements have not been reached with affected receivers, an updated Out of Hours Works Protocol will be developed and referred to DP&E, for review and approval.</p> <p>Where practical, noisy construction work will be undertaken during the less sensitive 6 pm to 10 pm evening period.</p> <p>In referring the approval to DP&E, the contractor will:</p> <ul style="list-style-type: none"> • Demonstrate the requirement for activities to be conducted outside the approved standard construction hours • Summarise the findings of the CNVIS assessment; • Detail the mitigation measures to be implemented for the specific OOHW; and • Detail why the negotiated agreements were not agreed with the community. <p>When referring the application to DP&E, the ER will provide a summary of the issues and provide a recommendation to be considered by DP&E.</p> <p>Up to 4 weeks (20 business days) will be allowed for DP&E to review the updated OOHW Protocol.</p>
8.	<p>OOH Works Approval</p>	<p>OOHW will not commence until approval is granted in accordance with items 4, 5, 6 or 7 (whichever is applicable)</p>
9.	<p>Community Notification</p>	<p>Community notification will be undertaken in accordance with the Community Communication Strategy. All OOHW (both low and high impact) will require notification to be distributed to receptors potentially affected by the works. A notification boundary will be established on a case by case basis in consultation with the Principal's Representative.</p> <p>Notification will be issued to the agreed area at least 7 days prior to works which may impact the community or stakeholders. The Project website will be updated with relevant information to further notify the community and stakeholders.</p>
10.	<p>Mitigation and Monitoring</p>	<p>All reasonable and feasible mitigation measures will be implemented in both standard approved hours and OOHW for the duration of the Project.</p> <p>Attended noise monitoring will be undertaken during OOHW and in accordance with other project or environment protection licence requirements.</p> <p>Monitoring will provide comparison the applicable CNVIS to ensure noise levels comply with those predicted in the CNVIS. Where noise (or vibration) levels are observed to continually exceed those outlined in the activity specific CNVIS, works shall stop and alternate methods and mitigation measures investigated and implemented.</p> <p>Noise and vibration monitoring will be undertaken by suitably qualified personnel, including professionally trained and experienced environmental staff and noise consultants where deemed necessary.</p>

A.5 Noise Mitigation to be Considered for OOHW

Noise and vibration mitigation measures for OOHW in addition to the general management measures detailed in Section 3.4 of the CNVMP will be considered. These will be considered on a case by case basis and nominated where reasonable and feasible, dependent upon the outcomes of the CNVIS:

- All plant to be well maintained and fitted with noise mufflers, engine hoods etc
- Timetabling noisiest activities to occur at the least sensitive times i.e. in the evening as opposed to night, or mid-morning as opposed to first thing in the morning
- Using spotters, closed circuit television monitors, “smart” reversing alarms, or “squawker” type reversing alarms in place of traditional reversing alarms;
- Mitigation of specific noise sources using portable temporary screens or enclosures, where practicable and safe
- Turning off plant and equipment when not in use
- Carrying out loading and unloading away from sensitive receivers, where practicable
- Avoid dropping materials from a height
- Timetabling OOHW at locations with the furthest distance from sensitive receivers
- Substituting noisy/vibration intensive equipment with less intrusive types
- Maximising the offset distance between noisy plant items and sensitive receivers
- Avoiding using noisy plant simultaneously and / or close together, adjacent to sensitive receivers, where practicable
- Orienting equipment away from sensitive receivers, where practicable;
- Using noise source controls, such as the use of residential class mufflers, to reduce noise from all plant and equipment including cranes, graders, excavators and trucks
- Selecting plant and equipment based on noise emission levels.

In extreme circumstances where the CNVIS deems the works to be of high impact, and they cannot be planned to occur during standard construction hours, at-receiver treatments may be required. They may include but not be limited to:

- Temporary acoustic shielding
- Offer of respite to residents

Following the application of all feasible and reasonable mitigation measures, if proposed OOHW are anticipated to result in residual impacts, defined as an exceedance of NML or VML, due consideration should be given to conducting these works during standard construction hours instead of OOH.

The potential noise reduction that can be achieved by noise mitigation measures are shown in Table A-3.

Table A-3 Noise Mitigation Measures

Management Measure	Anticipated Noise Reduction, dBA
Administrative Controls	
Operate during approved hours	N/A
Undertake regular noise monitoring to determine the impact of operating plant on sensitive receivers	N/A
Appropriate training of onsite staff	N/A
Undertake community consultation and respond to complaints in accordance with established project procedures	N/A
Turning off machinery when not in use	0-5
Respite periods for pile drivers and rock breakers	N/A
Engineering Controls	
Portable temporary screens	5-10
Screen or enclosure for stationary equipment	10-15

Management Measure	Anticipated Noise Reduction, dBA
Maximising the offset distance between noisy plant items and sensitive receivers	3-6
Avoiding using noisy plant simultaneously and / or close together, adjacent to sensitive receivers	2-3
Orienting equipment away from sensitive receivers	3-5
Carrying out loading and unloading away from sensitive receivers	3-5
Using dampened tips on rock breakers	3-6
Using noise source controls, such as the use of residential class mufflers, to reduce noise from all plant and equipment including bulldozers, cranes, graders, excavators and trucks	5-10
Selecting site access points and roads as far as reasonably practicable away from sensitive receivers	3-6
Using spotters, closed circuit television monitors, “smart” reversing alarms, or “squawker” type reversing alarms in place of traditional reversing alarms	2-5
Employ non noise-generating structures such as site offices, storage sheds, stockpiles and tanks as noise barriers	5-10

APPENDIX B EXTENDED HOURS WORK PLAN

This Extended Hours Work Plan (EHWP) has been developed for the Project to comply with the requirements of CoC B68(d) and B69 and other relevant conditions, as listed in Table B-1. The EHWP presents the assessment, management and approval process for works to occur during EHW.

All works conducted under this EHWP will be conducted consistently with the CNVMP.

Table B-1 EHWP Compliance Matrix

CoC	Requirement	EHWP Reference	How Addressed
B69	An Extended Hours Work Plan will be prepared for any construction undertaken during the extended hours detailed in Table 3 as required by condition B68(d). The Extended Hours Work Plan must provide for:		
	a) A three month assessment period, commencing at the start of extended hours construction work;	Section B.5	Continuous noise monitoring results to be reviewed during first week of EHW and monthly thereafter for the three month assessment period, with a final report issued to the Secretary.
	b) Implementation of the Construction Noise and Vibration Management Plan;	CNVMP	This EHWP has been prepared in a manner consistent with the CNVMP and refers to relevant sections of the CNVMP. Any relevant updates to the CNVMP will be incorporated into the EHWP via the EWHP review process.
	c) Noise monitoring at a representative number of sensitive receivers (including closest and furthest) to confirm the predicted noise levels;	Section B.5.2	Monitoring to be conducted per the processes outlined in Section 4.1.2 and Section 4.1.3 of the CNVMP. Additional monitoring location added in NCA3 to confirm the predicted noise levels.
	d) Targeted consultation with the noise affected sensitive receivers;	Section B.6	Consultation with potentially affected receivers included in Section B.6.
	e) Notification of the relevant Council, local residents and other affected stakeholders and sensitive receivers of the timing and duration at least 48 hours prior to the commencement of the works;	Section B.6	Council and stakeholder notification requirements specified in Section B.6.
	f) Construction work timeframes and methods for investigation of noise complaints;	Section B.1.3 Section B.7	EHW periods and duration of works described in Section B.1.3. Complaints handling process outlined in Section B.7.
	g) Submission of monthly complaints reports to the Department for the life of extended hours activities;	Section B.5.4	Reporting processes, outlined in Section B.5.4, to include monthly reports to DP&E.

CoC	Requirement	EHWP Reference	How Addressed
	h) Continual refinement of mitigation measures based on consultation with the noise affected sensitive receivers;	Section B.4	Review process, outlined in Section B.4, to include consultation with relevant stakeholders.
	i) Implementation of work practices set out in section 5.2 of the ICNG;	Section B.4	Management and mitigation during EHW to be consistent with Section 3.4 of the CNVMP and includes ICNG work practices.
	j) A final summary report submitted to the Secretary at the end of the assessment period in sub-condition (a), detailing the outcomes of the assessment period, the resolution of complaints during the assessment period, and demonstrate the acceptability of works outside standard hours.	Section B.5.4	Reporting processes, outlined in Section B.5.4, to include final report to DP&E.

Table 3: Extended Hours of Work

Activity	Day	Time
Early works and Construction (not including high noise impact, piling, spoil placement, rock breaking, concrete batching).	Monday – Friday	6am to 7am 6pm to 10pm
	Saturday	1pm to 5pm

B.1.1 Description of Works

The following section identifies the EHW activities. CoC B69 allows extended hours for construction works “not including high noise impact, piling, spoil placement, rock breaking, concrete batching”.

A summary of the EHW periods, and associated activities proposed to be undertaken is provided in Table B-2.

Table B-2 Construction activities to be undertaken within EHW periods

Construction works period	Activity
6:00am – 7:00am Weekdays	<ul style="list-style-type: none"> Starting of EHW equipment for servicing and maintenance Material delivery Stockpiling
6:00pm – 10:00pm Weekdays	<ul style="list-style-type: none"> Material delivery
1:00pm – 5:00pm Saturday	<ul style="list-style-type: none"> Stockpiling

B.1.2 Construction Compounds

Works during extended hours will make use of the construction compounds described in Section 3.3.2 of the CNVMP.

B.1.3 Timing and Duration

The proposed EHW will be conducted in Works Period B “Bulk Earthworks, Drainage and Utilities” which is to occur within Construction Phase A. As outlined in Section 1.3.3 of the CNVMP, these works will be undertaken in stages beginning in Q2 of 2018 and would have a duration of up to three years.

B.2 Identification of Receivers

The potentially most affected residential receivers in the vicinity of the Project site are specified in Section 3.1.1 of the CNVMP and, for convenience, are summarised below in Table B-3.

Table B-3 Sensitive Receivers

Receiver/Suburb	Category	Distance (m) from Stage 2 Construction Area
Wattle Grove	Residential	390
Wattle Grove North		350
Casula		760
Glenfield		1,580
All Saints Senior College (S1)	Educational	1,250
Casula Powerhouse (S2)		890
MPW (I1)	Industrial	Boundary
DJLU (I2)		Boundary
ABB (I3)		495

Kitchener House is located at 208 Moorebank Avenue, and is of heritage significance. Kitchener House is vacant and is therefore not considered as a noise sensitive receptor, however it is to be considered as a sensitive receiver for potential construction vibration impacts which could cause damage to the heritage structure.

B.3 Noise and Vibration Management Levels

B.3.1 Noise Management Levels

In accordance with the ICNG, construction noise management levels (NML) outside of standard construction hours are set at 5 dBA above the rating background noise level (RBL) for residential land uses. NML for the EHW periods permissible under CoC 69 have been developed using the RBL presented in Section 3.1.2 of the CNVMP and are presented below in

Table B-4.

Table B-4 also presents NML for non-residential land uses, which are independent of the RBL.

Table B-4 Extended Hours NML

NCA	Noise Management Level (NML) in dB(A)		
	6am to 7am Weekdays	6pm to 10pm Weekdays	1pm to 5pm Saturday
Wattle Grove	42	42	47
Wattle Grove North	41	41	41
Casula	39	42	46
Glenfield	42	49	49
S1, S2	55	55	55
DJLU	75	75	75

B.3.2 Construction Traffic Noise Criteria

The ICNG does not include any criteria to assess off-site traffic noise associated with construction of the Project.

Criteria for off-site road traffic noise applicable to existing residences affected by additional traffic on existing local roads generated by land use developments are specified in the NSW Road Noise Policy (RNP). Whilst these criteria do not specifically apply to construction traffic movements, they have been conservatively considered and are summarised in Table B-6 Table B-5.

Table B-5 RNP Criteria for Road Traffic Noise

Road	Category	Assessment Criteria - dBA	
		Day (7am – 10pm)	Night (10pm – 7am)
M5 Motorway	Freeway	L _{Aeq} , 15 hour 60 (external)	L _{Aeq} , 9 hour 55 (external)
Moorebank Avenue, Anzac Road	Arterial Road	L _{Aeq} , 15 hour 60 (external)	L _{Aeq} , 9 hour 55 (external)

Note: The specified criteria do not apply to vehicle movements within the Project Site. For the purpose of assessment, any noise generated by on-site vehicle movements is considered as construction noise and assessed holistically with on-site mobile plant in accordance with the ICNG.

Additionally, it is typically recognised that for existing residences and other sensitive land uses affected by additional traffic on existing roads, any increase in the total traffic noise level should preferably be limited to 2 dB above the existing road traffic noise levels. A 2 dB increase is typically considered not noticeable.

B.3.3 Vibration Management Levels

B.3.3.1 Disturbance to Buildings Occupants

Assessment of potential disturbance from construction vibration on human occupants of buildings is made in accordance with the guideline *Assessing Vibration; a technical guideline* (DECC, 2006). The guideline provides criteria which are based on the British Standard BS 6472-1992 'Guide to evaluation of human exposure to vibration in buildings (1-80Hz)'.

BS6472-1992 nominates guideline values for various categories of disturbance, the most stringent of which are the levels of building vibration associated with a "low probability of adverse comment" from occupants.

BS 6472-1992 was amended in 2008 to extend the use of the Vibration Dose Values (VDV) to all types of vibration (i.e. continuous, impulsive and intermittent). The vibration dose value is dependent upon the level and duration of the short-term vibration event, as well as the number of events occurring during the daytime or night-time period.

The vibration dose values recommended in BS 6472-1992 for which various levels of adverse comment from occupants may be expected are presented in Table B-6.

Table B-6 Vibration Dose Value ranges which might result in various probabilities of adverse comment within buildings

Place and Time	Low probability of adverse comment (m/s ^{1.75})	Adverse comment possible (m/s ^{1.75})	Adverse comment probable (m/s ^{1.75})
Critical areas (day or night)	0.1 to 0.2	0.2 to 0.4	0.4 to 0.8
Residential buildings 16 hr day	0.2 to 0.4	0.4 to 0.8	0.8 to 1.6
Residential buildings 8 hr night	0.1 to 0.2	0.2 to 0.4	0.4 to 0.8
Offices, schools, educational institutions and places of worship (day or night)	0.4 to 0.8	0.8 to 1.6	1.6 to 2.4
Workshops (day or night)	0.8 to 1.6	1.6 to 3.2	3.2 to 6.4

To assess the potential for vibration impact on human comfort, initial screening criteria based on *Assessing Vibration; a technical guideline* (DECC, 2006) have been adopted based on peak velocity units, as this metric is also used for the cosmetic damage vibration assessment. The screening criteria are conservative because they are based on the continuous vibration velocity criteria (i.e. vibration that continues uninterrupted for a defined assessment period) while construction works are mostly intermittent. The screening criteria are based on the preferred peak values, as shown in Table B-7, for pseudo-continuous work activities and on maximum peak values for surface construction works, which are intermittent in nature.

Table B-7 Construction Vibration Distance - Initial Screening Criteria

Place and Time	Preferred peak velocity, mm/s (>8Hz)	Maximum peak velocity, mm/s (>8Hz)
Critical areas (day or night)	0.14	0.28
Residential buildings 16 hr day	0.28	0.56
Residential buildings 8 hr night	0.20	0.40
Offices, schools, educational institutions and places of worship (day or night)	0.56	1.10
Workshops (day or night)	1.10	2.20

B.3.3.2 Damage to Infrastructure and Heritage

Potential structural damage of buildings, services or heritage structures caused by vibration is typically managed by ensuring vibration induced into the structure does not exceed certain limits and standards. The management criteria is not time affected; therefore the management of vibration in relation to structural damage should be undertaken in accordance with the CNVMP Section 3.2.2.2 to 3.2.2.5.

B.3.4 Construction Equipment and Activities

A range of construction equipment will be required during extended hours. A summary of the indicative equipment likely to be utilised is provided in Table B-8. Sound Power Levels (SWLs) associated with typical construction plant to be used during extended hours are also specified in Table B-8. These SWLs have recently been measured at other similar construction sites. The table gives both SWL and Sound Pressure Levels (SPL) at 7m for the equipment. SWL is independent of measurement position.

Table B-8 Indicative construction equipment and noise levels for EHW

Equipment	Equipment Qty Per EHW Activity		Noise Levels (dBA)	
	Material Delivery	Stockpiling	Sound Power Level	Sound Pressure Level at 7 m
Truck and Dog	✓		103	78
Static and vibratory rollers, and high energy impact compaction ^{1,2}		✓	110	85
825 Compactor		✓	112	87
Dozers		✓	118	93
Graders	✓		109	84
Water trucks	✓	✓	105	80
Road Sweeper	✓		90	65
Lighting towers	✓	✓	108	83
Generators	✓	✓	85	60

Note 1: 5 dB modification factors applied.

Note 2: Data supplied by Day Design (ref: 6033-7.1L REV C)

It is commonplace for construction equipment to be started for servicing prior to normal use. The noise emissions associated with starting equipment for servicing are typically lower than those during normal use. Accordingly, the noise levels presented in Table B-8 conservatively represent noise emissions associated with servicing construction equipment.

B.3.5 Predicted Noise Levels

During the EHW period between 6.00am – 7.00am weekdays, $L_{Aeq,15min}$ noise levels at sensitive receivers have been predicted and are presented in Table B-9. Table B-9 indicates that construction noise levels are not predicted to exceed the applicable NML at sensitive receivers during the extended hours construction between 6.00am – 7.00am weekdays.

Table B-9 Predicted Construction Noise Levels during extended hours of 6am and 7am weekdays

Receiver	Predicted $L_{Aeq, 15min}$ Noise Level	NML	Exceedance
Wattle Grove	28	42	0 dB
Wattle Grove North	35	41	0 dB
Casula	37	39	0 dB
Glenfield	<20	42	0 dB

Materials delivery and stockpiling are proposed activities during the EHW periods of 6.00pm – 10.00pm weekdays and 1.00pm – 5.00pm Saturday.

L_{Aeq, 15min} noise levels at sensitive receivers have been predicted and are presented in Table B-10. Table B-10 indicates that construction noise levels are not predicted to exceed the applicable NML at sensitive receivers during the EHW periods of 6.00pm – 10.00pm weekdays and 1.00pm – 5.00pm Saturday.

Table B-10 Predicted Construction Noise Levels during extended hours of 6.00pm – 10.00pm weekdays and 1.00pm – 5.00pm Saturday

Receiver	Predicted L _{Aeq, 15min} Noise Level	NML	Exceedance
Wattle Grove	34	42	0 dB
Wattle Grove North	30	41	0 dB
Casula	28	39	0 dB
Glenfield	21	42	0 dB

B.3.6 Potential Construction Traffic Noise Impacts

B.3.6.1 Construction Traffic Generation

During the EHW, all heavy vehicles, and the majority of light vehicles, will travel to and from the site via the M5 Motorway and Moorebank Avenue. Additionally, a small number of light vehicles will travel along Anzac Road, east of Moorebank Avenue, and along Moorebank Avenue, north of the M5 Motorway. No heavy vehicles, associated with the construction of the Project, will travel along Anzac Road, or along Moorebank Avenue, north of the M5 Motorway.

The existing and projected daily traffic volumes, and percentage heavy vehicles, along the identified roads, for the construction of the Project, are presented in Table B-11. It is not yet known whether heavy construction vehicles would travel to the site, along the M5 Motorway, from the east or the west. This would depend upon factors such as the construction contractor, and the source(s) of fill. Therefore, the projected construction traffic volumes along the M5 Motorway, presented in Table B-11, are based on all heavy construction vehicles travelling along the M5 Motorway both east and west of Moorebank Avenue. Such a scenario may not eventuate in practice, and therefore, the assessment of construction traffic noise along the M5 Motorway is conservative.

Table B-11 Construction Traffic Volume and % Heavy Vehicles

Location	Time ¹	Existing (no Development)		Future (with Development)	
		Volume	%Heavy	Volume	%Heavy
M5 Motorway – East of Moorebank Avenue	Day	106,344	9.7	107,370	10.5
	Night	21,060	13.2	21,201	13.5
M5 Motorway – West of Moorebank Avenue	Day	124,264	10.2	125,290	10.8
	Night	24,036	11.5	24,177	11.8
Moorebank Avenue – North of M5 Motorway	Day	26,892	10.0	26,953	10.0
	Night	6,308	10.0	6,345	9.9
Anzac Road – East of Moorebank Avenue	Day	8,991	4.6	9,018	4.6
	Night	2,109	4.6	2,125	4.6

Source: Arcadis

1. Day = 7.00am – 10.00pm, Night = 10.00pm – 7.00am

B.3.6.2 Predicted Increases in Road Noise Levels

Using the data in Table B-11, the increases in road noise levels along the M5 Motorway, Moorebank Avenue and Anzac Road, during the construction of the Project, have been calculated. The calculations have been conducted using the Calculation of Road Traffic Noise (CORTN) algorithm, and are based upon the following assumptions:

- Vehicle speeds are 100 km/h along the M5 Motorway and 60 km/h along Moorebank Avenue and Anzac Road.
- Typical receiver setbacks are approximately 25 metres along the M5 Motorway and approximately 12 metres along Moorebank Avenue and Anzac Road. It is important to highlight that receiver setbacks are important when calculating absolute road noise levels, however setbacks are not important when calculating increases in road noise levels due to changes in traffic volume and mix.

The predicted increases in road noise levels, due to the construction of the Project, are shown in Table B-12.

Table B-12 Increases in Road Noise Levels During EHW

Location	Predicted Increase (dBA)	
	Day ¹	Night ¹
M5 Motorway – East of Moorebank Avenue	0.1	0.0
M5 Motorway – West of Moorebank Avenue	0.2	0.1
Moorebank Avenue – North of M5 Motorway	0.0	0.1
Anzac Road – East of Moorebank Avenue	0.0	0.0

1. Day = 7.00am – 10.00pm, Night = 10.00pm – 7.00am

Table B-12 shows that increases in road noise levels along the M5 Motorway, Moorebank Avenue, and Anzac Road are considerably less than 2 dB. Therefore, no mitigation of traffic noise levels, due to EHW, has been considered.

B.3.7 Potential Vibration Impacts During Extended Hours

B.3.7.1 Vibration Intensive Activities and Equipment

Vibration-intensive plant that will be used during EHW will be limited to vibratory rollers used during stockpiling.

B.3.7.2 Vibration Safe Working Distances

Table B-13 defines typical safe working distances for vibration intensive activities relevant to EHW. These safe working distances are defined for damage (DIN 4150-3) and human comfort (the NSW Vibration Guideline). The safe working distances for cosmetic damage will be complied with at all times.

Table B-13 Safe Working Distances

Plant Item	Rating/Description	Safe Working Distance (m)			
		Pipework and Infrastructure (DIN 4150-3)	Buildings used for commercial purposes, industrial buildings, and buildings of similar design (DIN 4150-3)	Dwellings and buildings of similar design and/or occupancy (DIN 4150-3)	Human Comfort (the NSW Vibration Guideline)
Vibratory Roller	< 50 kN (Typically 1-2 tonnes)	1 m	2 m	6 m	15 m to 20 m
	< 100 kN (Typically 2-4 tonnes)	1 m	2 m	8 m	20 m
	< 200 kN (Typically 4-6 tonnes)	1 m	3 m	15 m	40 m
	< 300 kN (Typically 7-13 tonnes)	1 m	4 m	19 m	100 m
	> 300 kN (Typically 13-18 tonnes)	1 m	4 m	25 m	100 m
	> 300 kN (> 18 tonnes)	1 m	1 m	31 m	100 m

For EHW, it is not expected that the cosmetic damage and human comfort criteria will be exceeded as the safe working distances specified in Table B-13 will be able to be maintained.

In areas where residential buildings and or commercial buildings are located less than 100 m from areas where vibratory rollers are proposed, all feasible and reasonable mitigation measures will be implemented including:

- Selection of an appropriate-sized vibratory roller;
- The use of lower vibration settings or static rolling; and/or
- Verification of vibration levels via monitoring.

In relation to human comfort, the safe working distances above relate to continuous vibration. For most construction activities, vibration emissions are intermittent in nature and for this reason, higher vibration levels, occurring over shorter periods may be allowed. A targeted assessment may be undertaken during works to evaluate any decrease in human comfort safe work distance offsets and to determine if any other mitigation or management measures are required to minimise the potential impacts.

B.3.7.3 Heritage Listed Structures

Kitchener House is located at 208 Moorebank Avenue, and is of heritage significance. Vibration generating activities during EHW are unlikely to occur within 100 m of Kitchener House. However, if EHW are to occur within 100 m of Kitchener House, management as per the CNVMP Section 3.2.2.5 will be required.

B.4 Management Measures

All reasonable and feasible mitigation measures will be implemented consistent with Section 5.2 of the ICNG and Section 3.4 of the CNVMP as well as Section A.4 of the OOHWP Protocol. Refinement of the management measures will be undertaken in consultation with noise affected receivers through the Community Consultative Committee and in response to noise and/or vibration complaints.

B.5 Monitoring and Reporting

Monitoring and reporting during EHW will be consistent with Section 4 of the CNVMP, except where noted in the sections below.

B.5.1 Maximum Noise Levels for Plant and Equipment

Noise levels of plant used during EHW will be measured in accordance with the process outlined in Section 4.1.1 of the CNVMP.

B.5.2 Noise Monitoring

Attended community noise monitoring will be undertaken during EHW in accordance with Section 4.1.2 of the CNVMP. Attended noise measurements will be undertaken at all locations prescribed in Section 4.1.2.2 of the CNVMP during each of the EHW periods in the first week of EHW and monthly thereafter for the duration of the three month assessment period.

During EHW, the results of continuous noise monitoring, conducted in accordance with Section 4.1.3 of the CNVMP, will be reviewed at equivalent intervals to the attended noise monitoring to confirm compliance with the NML.

B.5.3 Vibration Monitoring

Where required, vibration monitoring during EHW will be conducted in accordance with Section 4.1.4 of the CNVMP.

B.5.4 Monitoring and Assessment Reports

During EHW, the Contractor's EM will compile a monthly report for the construction noise and vibration compliance monitoring detailing the community noise monitoring results as well as any other noise and vibration monitoring that was conducted during the reporting period. The report will include information about any exceedances detected and how non-compliances were addressed. This report will be sent to the Principal's Representative and to DP&E.

A final summary report will be provided to the Secretary at the end of the assessment period (3 months) detailing the outcomes of the assessment period, the resolution of complaints during the assessment period, and demonstrate the acceptability of works outside standard hours. The EHWP will be updated in accordance with any recommendations made by DP&E on the summary report. All written directions will be complied with.

B.6 Stakeholder Consultation & Notification

All EHW will require targeted consultation and notification to be distributed to receptors potentially affected by the works between 5 and 14 days prior to commencement. A notification boundary will be established on a case by case basis. See the Community Consultation Strategy for further detail.

Liverpool City Council will be notified of EHW a minimum of 48 hours prior to commencement.

Notification will be conducted in accordance with the processes established in the Community Communication Strategy. All notification will advise both the timing and duration of the relevant works.

B.7 Complaints

Enquiries, complaints and incident management relating to EHW will be undertaken as per the Project CEMP and Community Communication Strategy.

Complaints arising from EHW will be treated sensitively and in a manner, that recognises the potential for noise and vibration to cause environmental impacts. Special consideration will be given to complaints related to noise and vibration in order that additional mitigation can be implemented in a timely manner.

Various lines of communication will be made available for enquiries and complaints during construction of the Project. This will include a 24 hour telephone number for enquiries and complaints. Any complaints received during the works will be dealt with in accordance with the Strategy for the Project. Complaints management protocols are outlined in the Community Liaison Plan. The outcomes of the environmental reviews may trigger the amendments to this EHWP. Any amendments to the EHWP and associated documentation will be undertaken in accordance with Section 1.2.7 of the CEMP.

Construction of the project during extended hours will be undertaken in accordance with the most recent, approved version of the EHWP.

APPENDIX C EVIDENCE OF CONSULTATION

From: Nathan Cairney

Sent: Monday, 19 March 2018 8:42 AM

To: 'Jennifer Sage' <Jennifer.Sage@epa.nsw.gov.au>

Cc: RJohnson <richard@aspectenvironmental.com.au>; Dan Blyde <Dan.Blyde@qube.com.au>; Steve Ryan <sryan@tacticalgroup.com.au>; Andrew Wiltshire <awiltshire@tacticalgroup.com.au>; Sarah Thomson <Sarah.Thomson@epa.nsw.gov.au>; Rashad Danoun <Rashad.Danoun@epa.nsw.gov.au>

Subject: RE: MPE Stage 2 SSD-7628 - Condition B77 Construction Noise and Vibration

Mgmt Plan (CNVMP)

Hi Jennifer,

Thanks for the response below and the quick discussion on the phone this morning. Confirming that in relation to the requirement of the condition for the plan to be developed in consultation with EPA, EPA welcome the opportunity, however do not intend to provide comments on the plan and therefore this requirement has been satisfied.

Regards,
NATHAN CAIRNEY
DIRECTOR
TACTICAL
GROUP


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 Before printing this document, please consider the environment.

From: Jennifer Sage [<mailto:Jennifer.Sage@epa.nsw.gov.au>]

Sent: Monday, 12 March 2018 11:28 AM

To: Nathan Cairney <ncairney@tacticalgroup.com.au>

Cc: RJohnson <richard@aspectenvironmental.com.au>; Dan Blyde <Dan.Blyde@qube.com.au>; Steve Ryan <sryan@tacticalgroup.com.au>; Andrew Wiltshire <awiltshire@tacticalgroup.com.au>; Sarah Thomson <Sarah.Thomson@epa.nsw.gov.au>; Rashad Danoun <Rashad.Danoun@epa.nsw.gov.au>

Subject: RE: MPE Stage 2 SSD-7628 - Condition B77 Construction Noise and Vibration Mgmt Plan (CNVMP)

Hello Nathan

Thanks for your email below providing the Construction Noise and Vibration Management Plan (March 2018) for Moorebank Precinct East Stage 2. I understand that a condition of planning approval for the project requires the proponent to consult with the EPA when developing the above management plan.

While the EPA encourages the use of environmental management plans as an effective environmental management tool, it does not review or endorse them for reasons of maintaining regulatory 'arm's length', and therefore has not reviewed the above management plan.

Please do not hesitate to contact me (details below) or Rashad Danoun on (02) 9995

6370 should you have any further questions.

Regards


Jen

Jennifer Sage

Unit Head Metropolitan Infrastructure

Regulatory Services Division, NSW Environment Protection Authority

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Report pollution and environmental incidents 131 555 (NSW only) or +61 2 9995 5555



Please note that I do not work on Thursdays.

From: Nathan Cairney [<mailto:ncairney@tacticalgroup.com.au>]

Sent: Monday, 5 March 2018 6:51 AM

To: Sarah Thomson <Sarah.Thomson@epa.nsw.gov.au>; Jennifer Sage <Jennifer.Sage@epa.nsw.gov.au>

Cc: RJohnson <richard@aspectenvironmental.com.au>; Dan Blyde <Dan.Blyde@qube.com.au>; Steve Ryan <sryan@tacticalgroup.com.au>; Andrew Wiltshire <awiltshire@tacticalgroup.com.au>

Subject: FW: MPE Stage 2 SSD-7628 - Condition B77 Construction Noise and Vibration Mgmt Plan (CNVMP)

Sarah/Jennifer,

Please find below and attached CNVMP for the above project. If there is anything that you could do to progress this in Rashad's absence it would be greatly appreciated.

Regards,
NATHAN CAIRNEY

DIRECTOR

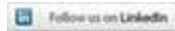
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From: Nathan Cairney

Sent: Monday, 5 March 2018 6:00 AM

To: 'Rashad.Danoun@epa.nsw.gov.au' <Rashad.Danoun@epa.nsw.gov.au>

Cc: Steve Ryan <sryan@tacticalgroup.com.au>; RJohnson <richard@aspectenvironmental.com.au>; Andrew Wiltshire <awiltshire@tacticalgroup.com.au>; 'Patel, Ketan' <Ketan.Patel@arcadis.com>; Blackmore, Shannon <Shannon.Blackmore@arcadis.com>; Dan Blyde <Dan.Blyde@qube.com.au>

Subject: MPE Stage 2 SSD-7628 - Condition B77 Construction Noise and Vibration Mgmt Plan (CNVMP)

Hi Rashad,

I understand that Andrew Wiltshire contacted you earlier this month to notify you that this plan would be issued, and further to that discussion we now provide a copy of the CNVMP for EPA's review and comment. The condition does not require any form of approval from EPA, only for your input and consultation into the plan and we would appreciate it if you could review and comment on the plan in this light.

Our program to commence works would ideally be a start on site in the first week of April, and in order to achieve that we would require your comments on or before 19 March, anything you could to progress the review by this time would be greatly appreciated. Similarly, we would also be grateful to have the opportunity to meet and discuss the plan with you in order to garner your comments in an efficient and effective manner, so please don't hesitate to let us know if you would like to meet and we will arrange for specialists to be available (I believe you would have met Nic Hall from Wilkinson Murray in the past on the project).

Regards,
NATHAN CAIRNEY
DIRECTOR



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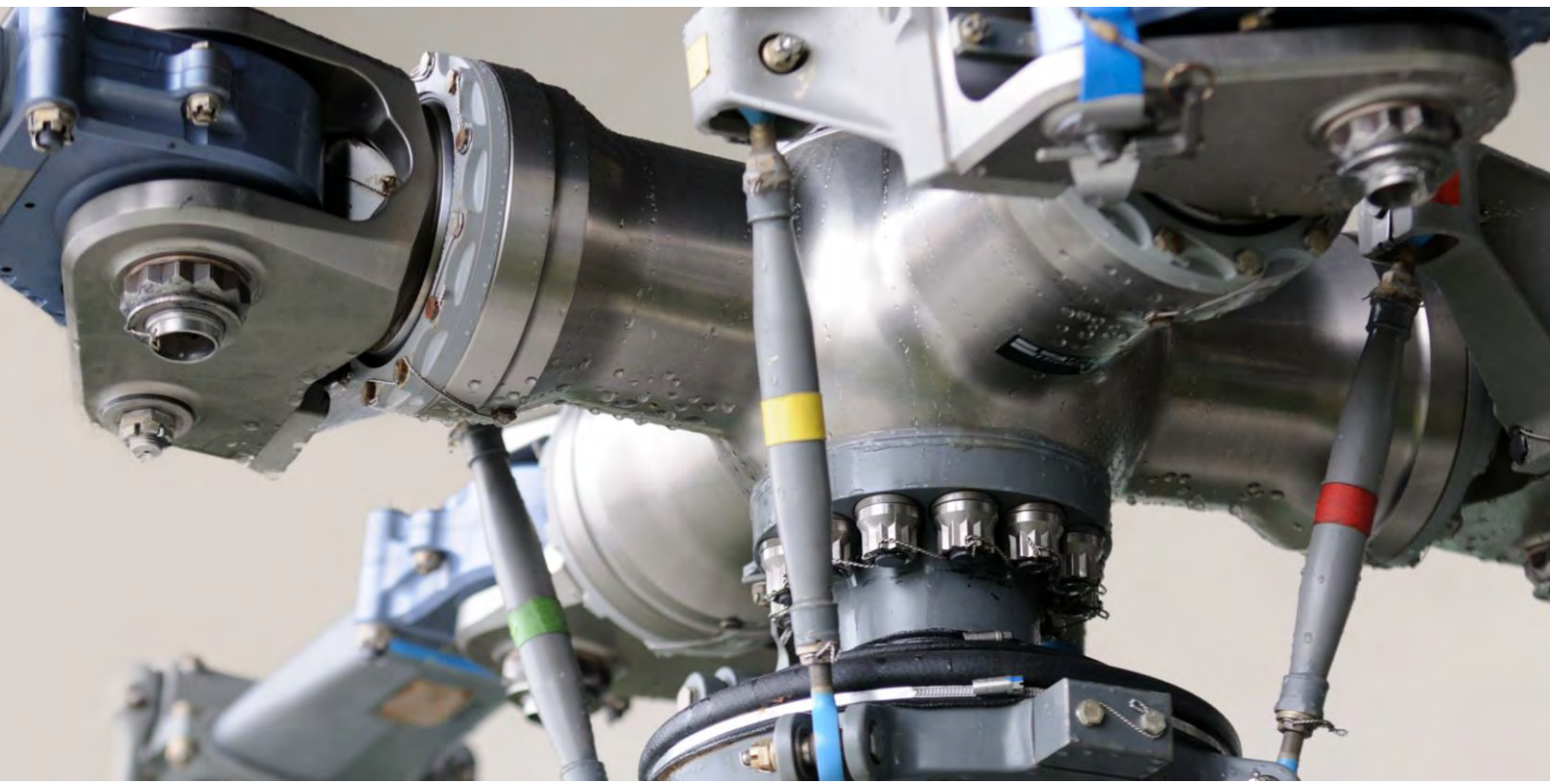
APPENDIX D HELICOPTER ASSISTED INSTALLATION WORKS CONSTRUCTION NOISE AND VIBRATION IMPACT STATEMENT (CNVIS)

SIMTA – Moorebank Precinct East
Stage 2

Helicopter Assisted Installation Works - construction noise and vibration impact
statement

November 2019

Doc no. 19023-NV-RP-1-1



SIMTA Moorebank Precinct East Stage 2

Title	Helicopter lift – Construction noise and vibration impact statement
Document no.	Doc No. 19023-NV-RP-1-1
Revision	Rev 1
Date	8 November 2019
Author	John Hutchison
Reviewer	Scott Hughes
File path	I:\PROJECTS\19023 - Arcadis Moorebank\02 Deliverables\021 Reports\19023-NV-RP-1-1 Arcadis MPES2 Helicopter NVIS.docx

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Revision	Date	Status
0	8 November 2019	To client for review
1	8 November 2019	Amended with client comments

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Appendix A. Predictions for individual receivers

Definition of terms

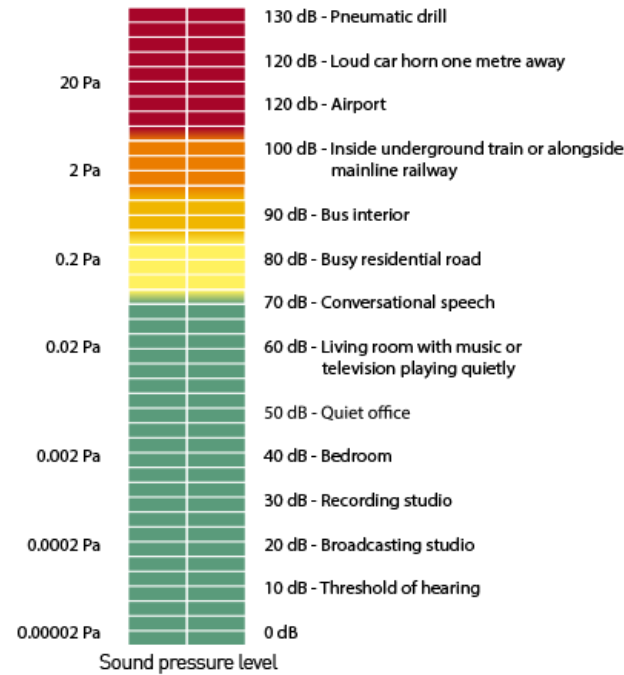
Assessment period	The period in a day over which assessments are made.
Background noise	The underlying level of noise present in the ambient noise, excluding the noise source under investigation.
Decibel (dB)	A measure of sound equivalent to 20 times the logarithm (to base 10) of the ratio of a given sound pressure to a reference pressure, and 10 times the logarithm (to base 10) of the ratio of a given sound power to a reference power.
dB(A)	Unit used to measure 'A-weighted' sound pressure levels. A-weighting is an adjustment made to sound-level measurement to approximate the response of the human ear.
dB(C)	Unit used to measure 'C-weighted' sound pressure levels, an adjustment made to sound level to approximate low frequency noise between 10 Hz and 200 Hz.
Extraneous noise	Noise resulting from activities that are not typical of the area such as construction, and traffic generated by holiday periods or special events such as concerts or sporting events. Normal daily traffic is not considered to be extraneous.
Noise assessment criteria	A standard rule or test by which the acceptability of the nature and characteristics of noise may be judged or evaluated. Criteria are generally based on guidelines or standards developed by Government agencies (eg EPA) to protect the majority of people for the majority of the time from adverse impacts.
Noise level statistics	<p>L_{A90} - The A-weighted sound pressure level exceeded 90% of the monitoring period. This is considered to represent the background noise.</p> <p>L_{Aeq} - The equivalent continuous A-weighted noise level—the level of noise equivalent to the energy average of noise levels occurring over a measurement period.</p> <p>L_{A1} - The A-weighted sound pressure level exceeded 1% of the monitoring period.</p> <p>L_{Amax} - The maximum A-weighted noise level associated with the measurement period.</p>
Sound Power Level (SWL)	The A-weighted sound power level is a logarithmic ratio of the acoustic power output of a source relative to 10^{-12} watts and expressed in decibels. Sound power level is calculated from measured sound pressure levels and represents the level of total sound power radiated by a sound source.

Sound Pressure Level (SPL)

This is the level of noise, usually expressed in dB(A), as measured by a standard sound level meter with a pressure microphone. The sound pressure level in dB(A) gives a close indication of the subjective loudness of noise.

A technical definition for the sound pressure level, in decibels, is 20 times the logarithm (base 10) of the ratio of any two quantities related to a given sound pressure to a reference pressure (typically 20 μPa equivalent to 0 dB). Examples of typical sound pressure levels are shown below.

Threshold of pain



Source: https://www.osha.gov/dts/osta/otm/noise/health_effects/soundpropagation.html

Tonal noise

Noise with perceptible and definite pitch or tone

1. Introduction

Sydney Intermodal Terminal Alliance (SIMTA) is currently constructing an Intermodal Terminal Facility at Moorebank NSW, consisting of warehousing and distribution facilities to handle up to around 1.5 million containers each year. The facility will enable containers moving between Port Botany and southwest Sydney to travel primarily by rail, increasing the capacity and efficiency of Port Botany. Containers bound for other states would be transferred directly to trains without leaving the facility.

The Moorebank Precinct East Stage 2 (MPE) project involves construction of large warehouses on the eastern side of the project area. The MPE is located 27 kilometre west of Sydney's CBD near the suburbs of Casula, Glenfield and Wattle Grove. An illustration of the facility location and surrounding area is provided in Figure 1-1.

As part of construction, plant and materials need to be transferred from the ground onto the roofs of newly constructed warehouses. A helicopter is proposed for this activity to avoid construction and use of a tower crane. Dates and times of the helicopter lifts are yet to be determined; however it must be a daylight activity for safety reasons, therefore avoiding the more noise sensitive periods of the day.

The use of a helicopter to undertake these tasks provides coverage of the whole roof and would eliminate or substantially minimise the requirement for manual handling, thereby significantly reducing the number of construction personnel required on the roof and also reducing the risk of injury through falls and manual handling. Therefore the helicopter use is considered justified as it is the most reasonable and feasible measure for ensuring the workplace safety of construction personnel and, as such, is the most appropriate method to meet the Contractor's WHS legislative requirements.

Use of a helicopter for this purpose may result in construction noise and vibration impacts on the surrounding community. However, this activity was not included within the noise and vibration impact assessment completed as part of the Environmental Impact Statement for the project and now requires assessment to ensure appropriate noise and vibration mitigation and management measures are implemented.

In support of the project's noise and vibration management plan (NVMP), this construction noise and vibration impact statement provides a summary of the existing environment, relevant noise and vibration management goals, results of the impact assessment and appropriate controls and safeguards.

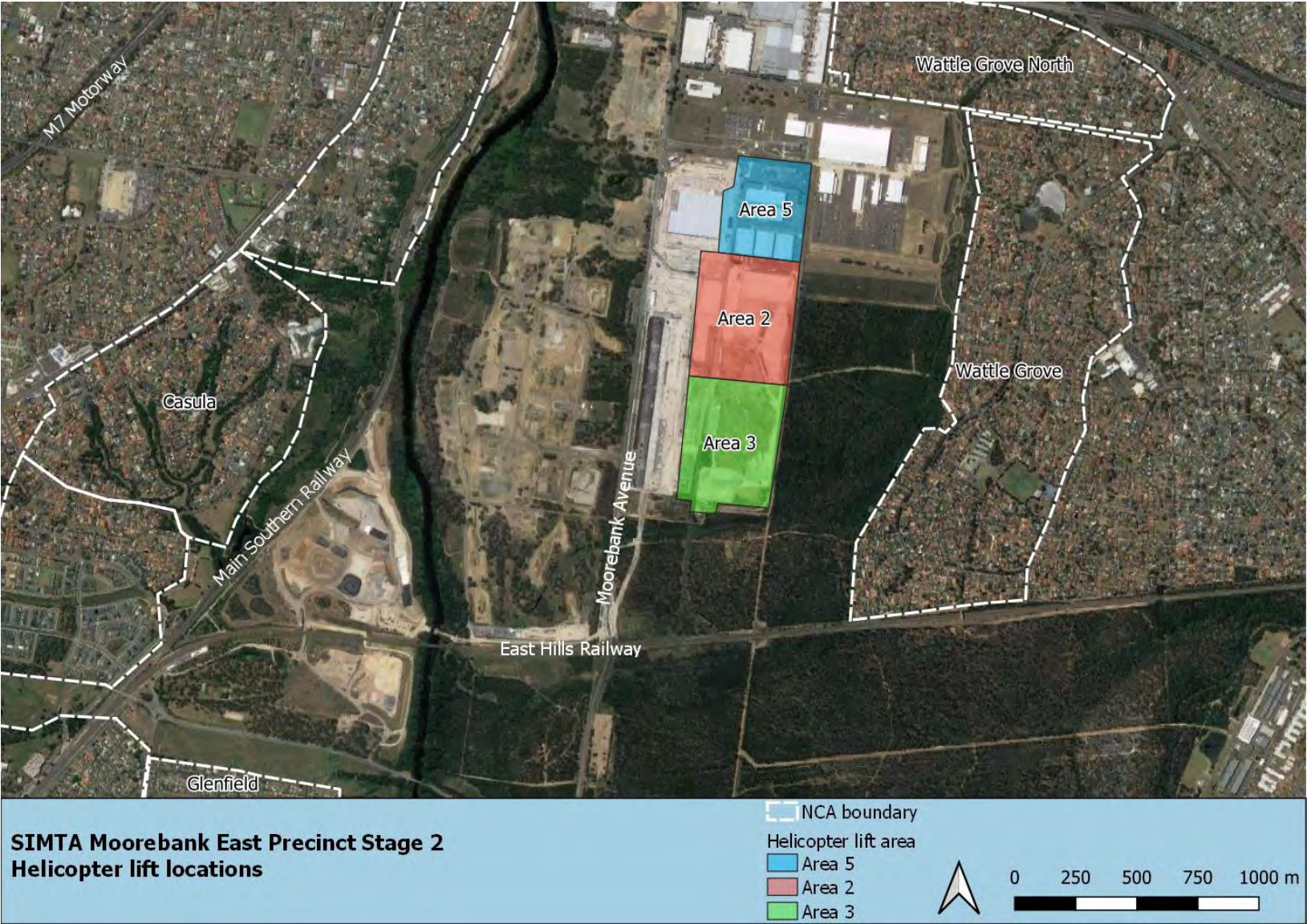


Figure 1-1 Location map

2. Assessment framework

The Sydney Intermodal Terminal Alliance (SIMTA) received approval for the construction and operation of Stage 2 of the Moorebank Precinct East (MPE) Project (SSD 7628), which comprises the second stage of development under the MPE Concept Consent (MP10_0193).

The NVMP outlines the Project’s Conditions of Consent (CoC) for management of construction noise and vibration impacts. COCs applicable to the proposed helicopter lifts are detailed in Table 2-1.

Table 2-1 Conditions of Consent

CoC	Description								
Construction hours									
B65	<p>The construction hours detailed in Table 2 must be complied with, except where they may be undertaken under condition B67.</p> <p>Table 2: Hours of Work</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Early works and Construction</td> <td>Monday– Friday</td> <td>7am to 6pm</td> </tr> <tr> <td>Saturday</td> <td>7am to 1pm</td> </tr> </tbody> </table>	Activity	Day	Time	Early works and Construction	Monday– Friday	7am to 6pm	Saturday	7am to 1pm
Activity	Day	Time							
Early works and Construction	Monday– Friday	7am to 6pm							
	Saturday	7am to 1pm							
B66	<p>Except as permitted by an EPL, activities resulting in a high noise impact shall only be undertaken:</p> <ul style="list-style-type: none"> a) between the hours of 8:00 am to 5:00 pm Monday to Friday; b) between the hours of 8:00 am to 1:00 pm Saturday; and c) in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block. <p>For the purposes of this condition, ‘continuous’ includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this condition.</p>								
B67	<p>Works may be undertaken outside the hours detailed in Table 2 in the following circumstances:</p> <ul style="list-style-type: none"> a) For the delivery or dispatch of materials as requested by the NSW Police Force or other public authorities for safety reasons; b) Where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm; c) Where different construction hours are permitted or required under an EPL in force in respect of construction, in which case these construction hours must be complied with; d) Where they are undertaken in accordance with an Out-of-Hours Work Protocol detailing the assessment, management and monitoring of noise as part of the Construction Noise and Vibration Management Plan. 								
B68	<p>The Applicant must prepare an Out-of-Hours Work Protocol for any work undertaken outside the hours specified in condition B65 or outside the circumstances specified under condition B67. An Out-of-Hours Work Protocol must provide for the assessment, management and monitoring of out of hours work, including:</p> <ul style="list-style-type: none"> a) Where works are shown to be inaudible at the nearest sensitive receivers and vibration levels do not exceed those stipulated by Table 2.2 and Table 2.4 of Assessing Vibration: a technical guide (DEC, 2006); b) Where a negotiated agreement has been arranged with affected receivers; c) Where noise can be shown to satisfy the noise management levels specified in the Interim Construction Noise Guideline (ICNG, DECC, 2009) at non-residential land uses 								

CoC	Description								
B69	<p>An Extended Hours Work Plan will be prepared for any construction undertaken during the extended hours detailed in Table 3 as required by condition B68(d). The Extended Hours Work Plan must provide for:</p> <ol style="list-style-type: none"> A three month assessment period, commencing at the start of extended hours construction work; Implementation of the Construction Noise and Vibration Management Plan; Noise monitoring at a representative number of sensitive receivers (including closest and furthest) to confirm the predicted noise levels; Targeted consultation with the noise affected sensitive receivers; Notification of the relevant Council, local residents and other affected stakeholders and sensitive receivers of the timing and duration at least 48 hours prior to the commencement of the works; Construction work timeframes and methods for investigation of noise complaints; Submission of monthly complaints reports to the Department for the life of extended hours activities; Continual refinement of mitigation measures based on consultation with the noise affected sensitive receivers; Implementation of work practices set out in section 5.2 of the ICNG; A final summary report submitted to the Secretary at the end of the assessment period in sub-condition (a), detailing the outcomes of the assessment period, the resolution of complaints during the assessment period, and demonstrate the acceptability of works outside standard hours. <p>Table 3: Extended Hours of Work</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Early works and Construction (not including high noise impact, piling, spoil placement, rock breaking, concrete batching).</td> <td>Monday to Friday</td> <td>6am to 7am 6pm to 10pm</td> </tr> <tr> <td>Saturday</td> <td>1pm to 5pm</td> </tr> </tbody> </table>	Activity	Day	Time	Early works and Construction (not including high noise impact, piling, spoil placement, rock breaking, concrete batching).	Monday to Friday	6am to 7am 6pm to 10pm	Saturday	1pm to 5pm
Activity	Day	Time							
Early works and Construction (not including high noise impact, piling, spoil placement, rock breaking, concrete batching).	Monday to Friday	6am to 7am 6pm to 10pm							
	Saturday	1pm to 5pm							
	Construction noise and vibration								
B72	<p>All reasonable and feasible noise mitigation measures must be implemented in addition to the management and mitigation measures in APPENDIX B with the aim of achieving the following construction Noise Management Levels (NMLs) and vibration criteria:</p> <ol style="list-style-type: none"> construction noise management levels established using the Interim Construction Noise Guideline (DECC 2009); vibration criteria established using the Assessing Vibration: A Technical Guide (DECC 2006) (for human exposure); and the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration- effects of vibration on structures (for structural damage). <p>Any construction activities identified as exceeding the construction noise management levels and/or vibration criteria shall be managed in accordance with the Construction Noise and Vibration Management Plan required by condition E34(b).</p>								
B73	<p>Any construction activities identified as exceeding the construction noise management levels and/or vibration criteria must be managed in accordance with the Construction Noise and Vibration Management Plan (CNVMP) required by condition B76. All feasible and reasonable noise mitigation and management measures must be implemented and any activities that could exceed the construction NMLs must be identified and managed in accordance with the CNVMP.</p>								
OOHW									
B77 e)	<p>An Out-of-Hours Work Protocol as referenced in condition B68 for the assessment, management and approval of works outside standard construction hours, for the Secretary’s approval. The Out-of-Hours Work Protocol must:</p> <ol style="list-style-type: none"> Detail assessment of out-of-hours work against the relevant noise and vibration criteria; Provide detailed mitigation measures for any residual impacts (that is, additional to general mitigation measures), including extent of at receiver treatments; Include proposed notification arrangements; and Include an Extended Hours Work Plan as required by condition B69. 								

3. Existing environment and assessment criteria

3.1 Existing environment

As shown in Figure 1-1, the project site is bounded to the west by the Moorebank Precinct West (MPW) and the main southern railway. Beyond the railway is the suburban area of Casula. In the south the site is bounded by the East Hills Railway which gives way to undeveloped land in Holsworthy and the suburb of Glenfield in the south west. To the east of the site is undeveloped land leading into the suburban area of Wattle Grove. In the north, industrial uses are dominant to the M5 Motorway, with Wattle Grove North to the North East.

Residential and non-residential sensitive receivers are located close to the project site. The nearest being Wattle Grove North around 350 metres northeast of the project site. Wattle Grove lies around 400 – 600 metres to the east, Glenfield around 1800 metres southwest and Casula around 1350 metres west. These suburbs have been used to divide sensitive receivers into representative noise catchment areas (NCAs) within which existing levels of noise are likely to be similar and impacts from the project of a similar magnitude. A summary of nearby receivers and NCAs is presented in Table 3-1.

Non-residential sensitive receivers in the area are identified within the NVMP as Casula Powerhouse (Art centre) and All Saints Senior College in Casula.

Table 3-1 Sensitive receivers and NCAs

NCA	Description	Orientation, distance to project site
1	Wattle Grove residents	East, 400 – 600 m
2	Wattle Grove residents	Northeast – 350 m
3	Casula residents	West, 1350 m
4	Glenfield residents	Southwest, 1800 m

3.2 Background noise monitoring

Baseline noise levels for each NCA are summarised in the Project's NVMP. Monitoring locations and Rating Background Levels (RBLs) are described in Table 3-2.

RBLs represent the average minimum background sound level and is the 10th percentile LA90 noise level for each measurement period, averaged over the measurement days.

Table 3-2 Background noise levels

Noise Monitoring Location Details	Representative noise catchment area	Rating background level (RBL)		
		Day (7am to 6pm)	Evening (6pm to 10pm)	Night (10pm to 7am)
15 Larra Court, Wattle Grove	Wattle Grove	42	37	37
6 Namoi Court, Wattle Grove	Wattle Grove North	36	36	36
2 Rushton Place, Casula	Casula	41	37	34
14 Goodenough Street, Glenfield	Glenfield	44	44	37

3.3 Construction hours

The NVMP divides construction hours into three scenarios:

1. Standard construction hours
2. Extended Hours Works (EHW)
3. Out of Hours Works (OOHW)

The standard construction hours for the Project (subject to different hours being permitted or required under an Environment Protection Licence (EPL)) are defined by CoC B65 as:

- 7am to 6pm, Monday – Friday
- 7am to 1pm, Saturday

EHW for the project are available through the development of an EHW Plan. The EHW are defined in CoC B69 as Early Works and Construction (not including high noise impact, piling, spoil placement, rock breaking, concrete batching) and relate to the following hours:

- 6am to 7am, Monday – Friday
- 6pm to 10pm, Monday – Friday
- 1pm to 5pm, Saturday

Works that are not captured within standard construction hours or approved under the EHW Plan may be undertaken through the Out of Hours Work Protocol developed in accordance with CoC B68.

3.4 Out of hours work protocol

The project OOHW protocol (Appendix A of the NVMP) was developed in line with CoC B68, and addresses works proposed to be undertaken outside the hours specified in condition B65 or outside the circumstances specified under condition B67.

The OOHW Protocol requires detailed assessment of out-of-hours work against relevant noise and vibration criteria and provision of mitigation measures for any residual impacts; proposed notification arrangements and must include an extended hour work plan.

3.5 Noise assessment criteria

3.5.1 ICNG

CoC B72 requires implementation of all feasible and reasonable noise mitigation measures with the aim of achieving the construction Noise Management Levels (NML) detailed in the *Interim Construction Noise Guideline* (ICNG) (DECC 2009) during construction activities.

The ICNG notes noise that exceeds background noise levels may result in adverse impacts and an increased likelihood of complaints. During standard hours, where construction noise is within 10 dB(A) of the RBL, the impacts are considered acceptable.

Where construction noise is more than 10 dB(A) above the RBL, a residential receiver is taken to be noise affected and the proponent should undertake all reasonable and feasible steps to manage the impact and consult with the affected community. Above a $L_{Aeq, 15 \text{ minute}}$ noise level of 75 dB(A), a receiver is considered to be highly noise affected, requiring respite to be given in consultation with the regulatory authority and the community.

At night, or outside approved construction hours, construction noise at a residential receiver more than 5 dB(A) above the RBL is taken to be noise affected.

In addition, annoying noise such as rock hammers, impact piling, or other impulsive noise sources usually result in greater annoyance than continuous construction noise. A 5 dB(A) penalty is applicable to such activities prior to comparison with the NMLs and has been applied to the helicopter in this CNVIS.

3.5.2 Standard hours

The NMLs in Table 3-3 are applicable to works undertaken during standard approved hours and are based on the RBLs described in Section 3.2.

Table 3-3 Summary of noise management levels

Representative noise catchment area	Construction noise management levels, $L_{Aeq, 15 \text{ minute}}$	
	Standard hours	
Wattle Grove	52	
Wattle Grove North	46	
Casula	51	
Glenfield	54	

A noise level above $L_{Aeq, 15 \text{ min}}$ 70 dB(A) at a commercial property is considered to warrant noise mitigation. Similarly, an industrial facility would warrant noise mitigation at $L_{Aeq, 15 \text{ minute}}$ noise levels above 75 dB(A).

Table 3-4 presents management levels for noise at other relevant sensitive land uses. Internal noise levels are assessed at the centre of the occupied room. Where internal noise levels cannot be measured, external noise levels may be used. A conservative estimate of the difference between internal and external noise levels is 10 dB for buildings other than residences.

Table 3-4 NMLs for non-residential sensitive receivers

Receiver type	Sensitive receiver type	NML applicable when in use, $L_{Aeq, 15 \text{ min}}$
All Saints Senior College	Classrooms at schools and other educational institutions	Internal noise level 45 dB(A) / External noise level 55 dB(A)
Casula Powerhouse Arts Centre	Community centres	

3.5.3 Out of hours work

The NVMP divides works undertaken outside standard construction hours into 4 out of hours works (OOHW) periods, as summarised in Table 3-5. NMLs for each period are presented in Table 3-6. High impact noise is defined as noise levels exceeding OOHW period NMLs. The NVMP does not provide NMLs for works on Sunday, works between 8 am and 4pm on Sunday are taken as OOWP 4.

Table 3-5 OOHW periods

OOHW Period	Day	Time
1	Monday to Friday	6am to 7am
2		6 pm to 10 pm
3	Saturday	7am to 8am Saturday
4		1pm to 5pm

Table 3-6 NMLs for OOHW periods

Representative noise catchment area	Construction noise management levels, $L_{Aeq, 15 \text{ minute}}$			
	1	2	3	4
Wattle Grove	42	42	47	47
Wattle Grove North	41	41	41	41
Casula	39	42	46	46
Glenfield	42	49	49	49
All Saints Senior College / Casula Powerhouse	55	55	55	55

3.6 Sleep disturbance

The helicopter lifts are not proposed to take place overnight and sleep disturbance is not applicable.

3.7 Vibration management levels

When assessing human exposure to construction-related vibration, MCoA E22 requires vibration goals are established using *Environmental Noise Management Assessing Vibration: A Technical Guideline* (DECC 2006), which provides criteria for the assessment of vibration impacts on humans.

Construction activities typically generate vibration of an intermittent nature, which is assessed using a Vibration Dose Value (VDV). Acceptable values of vibration doses are presented in Table 3-7 for sensitive receivers.

Table 3-7 VDV Vibration criteria

Receiver type	Time period	Intermittent Vibration Dose Value (VDV $\text{ms}^{-1.75}$)	
		Preferred	Maximum
Critical areas	When in Use	0.1	0.2
Residential	Day (7am to 10pm)	0.2	0.4
	Night (10pm to 7am)	0.13	0.26
Office, schools, educational institutions and places of worship	When in use	0.4	0.8

Guidance for the consideration of potential building damage from construction vibration is provided in MCoA E22, which requires the application of values set out in the *German Standard DIN 4150-3: Structural Vibration - effects of vibration on structures*. These values are presented in Table 3-8.

Table 3-8 Guideline values for vibration velocity to be used when evaluating the effects of short-term vibration on structures (DIN 4150-3).

Line	Type of building	Guideline values for vibration (PPV mm/s)			
		1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz	Vibration at horizontal plane of highest floor at all frequencies
1	Buildings used for commercial purposes, industrial buildings, and buildings of similar design	20	20 to 40	40 to 50	40
2	Dwellings and buildings of similar design and/or occupancy	5	5 to 15	15 to 20	15
3	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)	3	3 to 8	8 to 10	8

4. Impact assessment

4.1 Construction activity and source noise levels

A helicopter, Airbus AS350D1 or Bell 206L4, would lift plant and material from a laydown area in Area 2 (see Figure 1-1) and transfer them to warehouse rooftops in Areas 2, 3 and 5. The helicopter would use a 30 metre long sling to pick up and set down each pallet, typically remaining airborne for the duration of the activity, except for 15-minute refueling breaks each 2 hours. Though actual timing of the lifts is yet to be determined, noise impacts have been assessed during standard hours and outside standard hours on weekends, which would be a worst-case scenario.

Proposed equipment is summarised in Table 4-1 with the anticipated overall unmitigated $L_{Aeq, 15 \text{ minute}}$ sound power level from the helicopter. This value is taken from measurements of a previous helicopter lift at the project site. Measurements were completed by Wilkinson Murray in April 2019 at a range of distances from the works and sound power levels calculated from the results.

Sound power levels and ultimate predicted noise levels will depend on the location and operating conditions of the helicopter. The helicopter was assumed to be hovering at 45 metres above ground at the worst-case location relative to each receiver and represents a worst-case assessment. Where activity moves away from each receiver, or less time is spent hovering, predicted levels will decrease.

Table 4-1 Summary of proposed works

Activity	Location	Time	Distance / direction to nearest receivers	Equipment	Activity $L_{Aeq, 15 \text{ min}}$ sound power, dB(A)
Helicopter lifts	Areas 2, 3 & 5 (refer to Figure 1-1)	8 am to 4 pm Saturday and Sunday	East, 400 – 600 m Northeast – 350 m West, 1350 m Southwest, 1800 m	Airbus AS350DD1 or Bell 206L4 helicopter	130*

* A 5 dB penalty for annoying noise characteristics such as impulsiveness, low frequency components and tonality, will be added to the predicted level in line with the ICNG.

4.2 Modelling

SoundPlan noise modelling software was used to calculate noise impacts in accordance with the ISO9613 prediction method, at each of the representative sensitive receivers. The following parameters were incorporated in the model:

- Topography – 1 meter contours Digital Elevation Model plus Lidar data for site area
- Individual sensitive receivers – All receivers within each NCA have been included in the assessment, approximately 5,500 receivers
- Buildings –included in the model to allow for screening / reflection. Predictions made to the buildings' façade, with worst-case façade used in prediction at 1.5 metres above ground level.
- Construction noise sources –Activities and equipment listed in Table 4-1 were included in the noise model. Helicopters were assumed to be hovering at 45 metres above ground allowing for 30 metre sling and 15 metre warehouse roof height.
- Meteorology –worst-case conditions (gentle breeze from source to receiver and stable conditions).
- Cumulative noise – during helicopter operations in OOHW period, it is assumed no other construction activity would be underway and no cumulative impacts expected. Only one helicopter would be in operation.

4.3 Predicted noise levels

4.3.1 Standard hours

Predicted noise levels for individual receivers are provided in Appendix A and are summarised for each area of helicopter operations in Table 4-3, showing the maximum predicted noise level and the number of likely exceedances of the noise management levels during standard hours. Predicted noise levels include a 5dB penalty for likely annoying characteristics such as impulsiveness, low frequency and tonality.

Helicopter lifts in each area are predicted to exceed the standard NMLs at many identified receivers. The level of impact is directly proportional to the distance between source and receiver, with the closest receivers in each NCA to experience the highest noise level.

A single industrial receiver north of area 5 is expected to exceed 75 dBA. When working south of this area, the results would be lower.

During standard hours, receivers in Wattle Grove, Wattle Grove North and Casula are likely to be noise affected, with those in Wattle Grove North the highest impacted when activity is in Area 5.

Glenfield and Moorebank are at low risk of adverse impacts with only minor exceedances predicted during the day.

Table 4-2 Summary of predicted noise levels during standard hours (Areas 2,3, and 5)

Level of impact				Exceedance of Standard NML, dB			
Work area	NCA	Maximum	No. > 75dbA	0-5	6-15	15-25	25+
5	Casula	64	0	594	723	0	0
	Glenfield	52	0	0	0	0	0
	Moorebank	77	1	1	0	0	0
	Wattle Grove	71	0	1030	1675	111	0
	Wattle Grove North	75	0	0	240	477	42
2	Casula	63	0	887	562	0	0
	Glenfield	54	0	2	0	0	0
	Moorebank	69	0	0	0	0	0
	Wattle Grove	71	0	877	1785	110	0
	Wattle Grove North	68	0	5	518	236	0
3	Casula	61	0	1105	209	0	0
	Glenfield	57	0	31	0	0	0
	Moorebank	63	0	0	0	0	0
	Wattle Grove	75	0	1084	1308	172	0
	Wattle Grove North	62	0	29	718	4	0

4.3.2 Outside standard hours

Where works may need to be conducted outside standard hours, the NMLs would be lower and the resulting impacts greater. Though results are provided, helicopter lifts are not likely in the early morning or evening period as this activity is a daylight activity only.

During the day time on weekends, OOHW 3 and 4, many receivers would experience noise at levels more than 15 dB above the NML.

Table 4-3 Summary of predicted noise levels (Areas 2,3, and 5)

Level of impact		Helicopter lift area		
Period	Exceedance of NML	5	2	3
OOHW 1 6am to 7am Monday to Friday	0 – 5 dB	7	26	136
	5 – 15dB	2043	2067	3036
	15 – 25 dB	3166	3327	2186
	>25 dB	326	121	172
OOHW 2 6 pm to 10 pm Monday to Friday	0 – 5 dB	45	115	248
	5 – 15dB	2357	2436	3327
	15 – 25 dB	2765	2859	1755
	>25 dB	325	121	172
OOHW 3 7am to 8am Saturday	0 – 5 dB	566	491	637
	5 – 15dB	3487	3584	3821
	15 – 25 dB	1218	1413	863
	>25 dB	214	11	15
OOHW 4 1pm to 5pm Saturday	0 – 5 dB	566	491	637
	5 – 15dB	3487	3584	3821
	15 – 25 dB	1218	1413	863
	>25 dB	214	11	15

Contours representing predicted noise levels in each area are presented in Figure 4-1 to Figure 4-3. Contours demonstrate Wattle Grove would be the most affected, particularly from work in areas 5 and 3. Casula and Glenfield, though still noise affected, would experience lower levels of helicopter noise.

4.3.3 Sleep disturbance

The risk of sleep disturbance is based on the frequency and nature of high noise events in the night period, typically after 11 pm. Helicopter lifts are planned during daylight hours only and sleep disturbance is not applicable.

4.4 Vibration

Vibration intensive equipment is not proposed for the helicopter lifts, hence ground-borne vibration is not applicable.

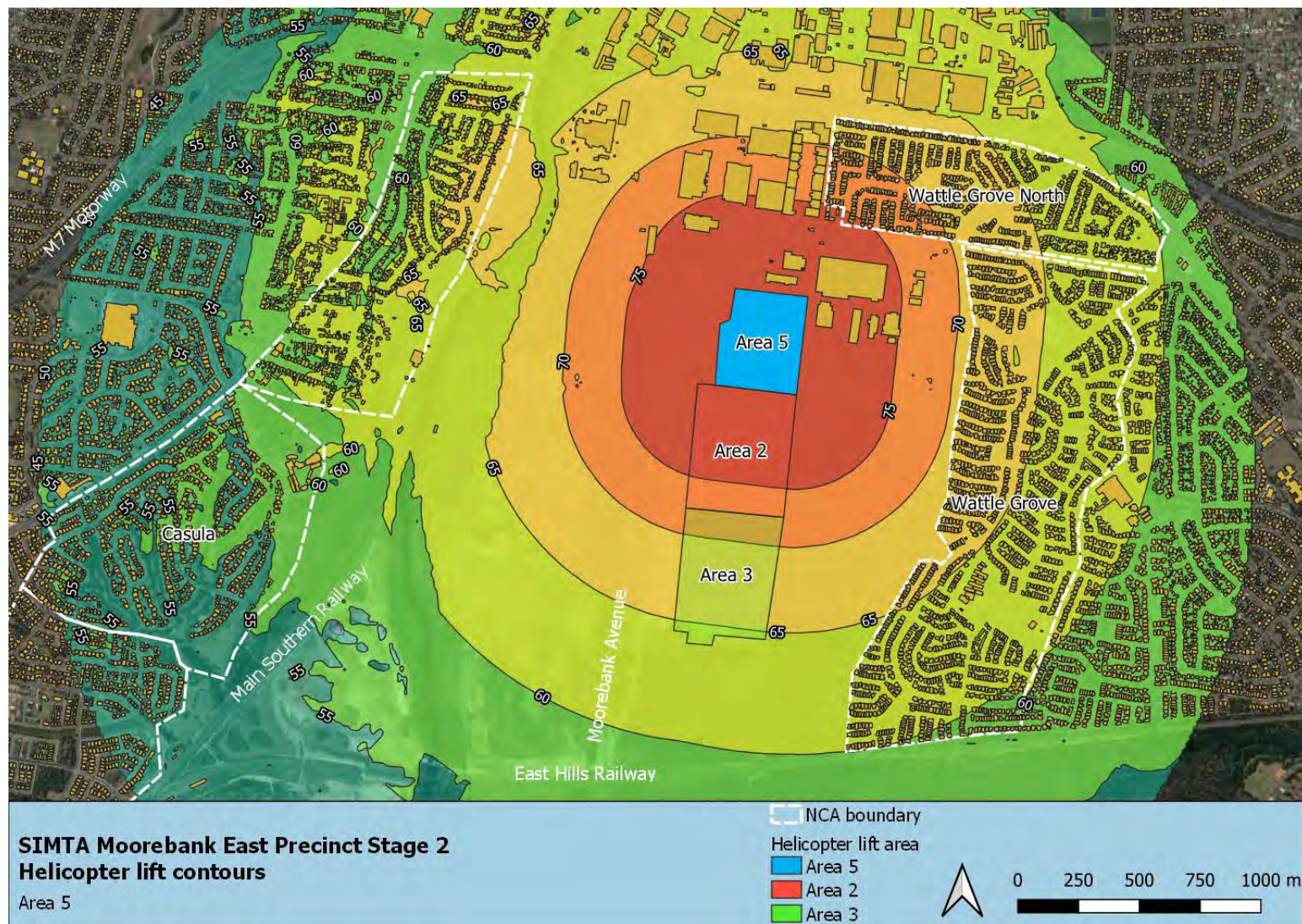


Figure 4-1 Predicted $L_{Aeq, 15 \text{ minute}}$ noise levels for helicopter lifts in Area 5

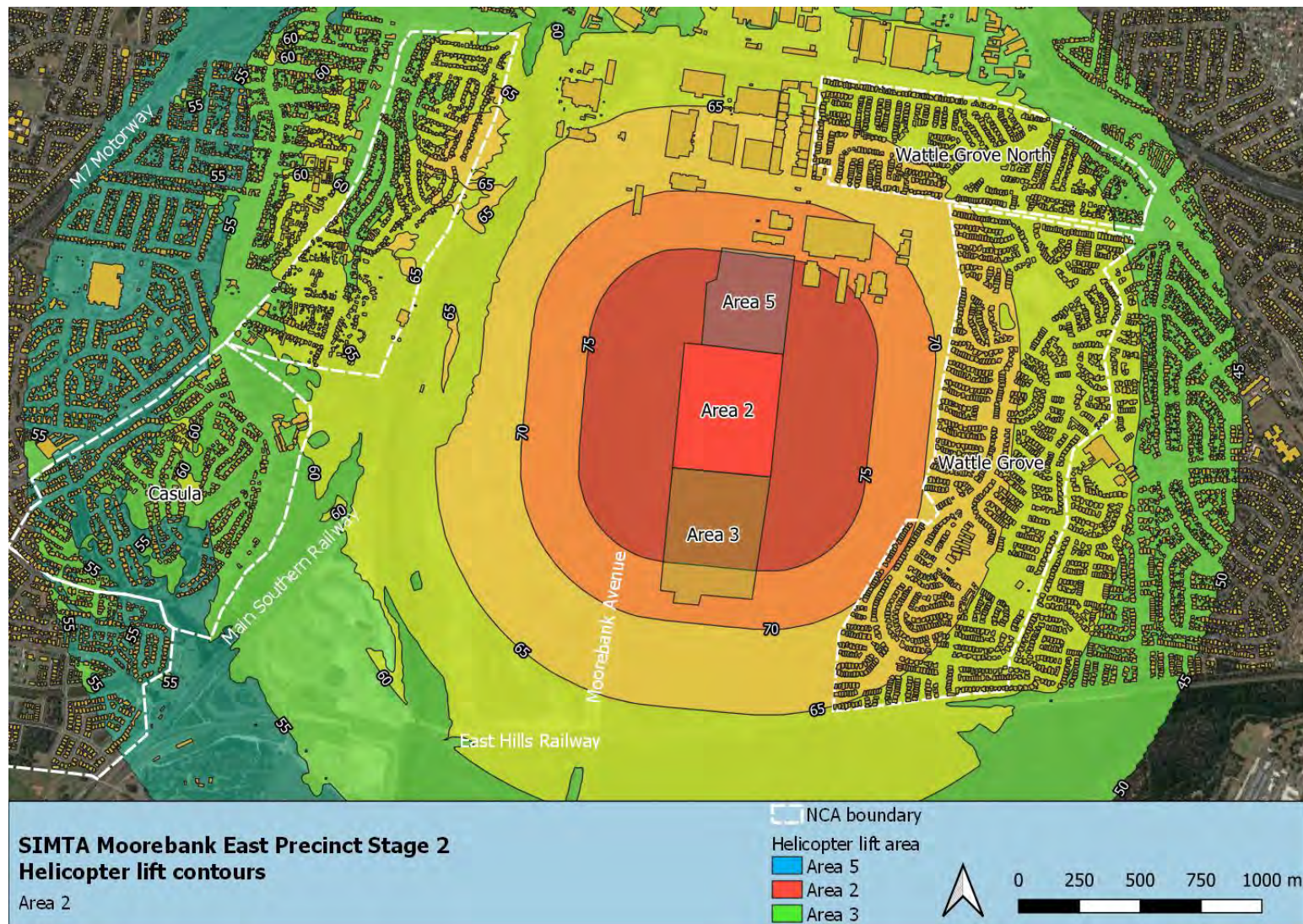


Figure 4-2 Predicted L_{Aeq} , 15 minute noise levels for helicopter lifts in Area 2

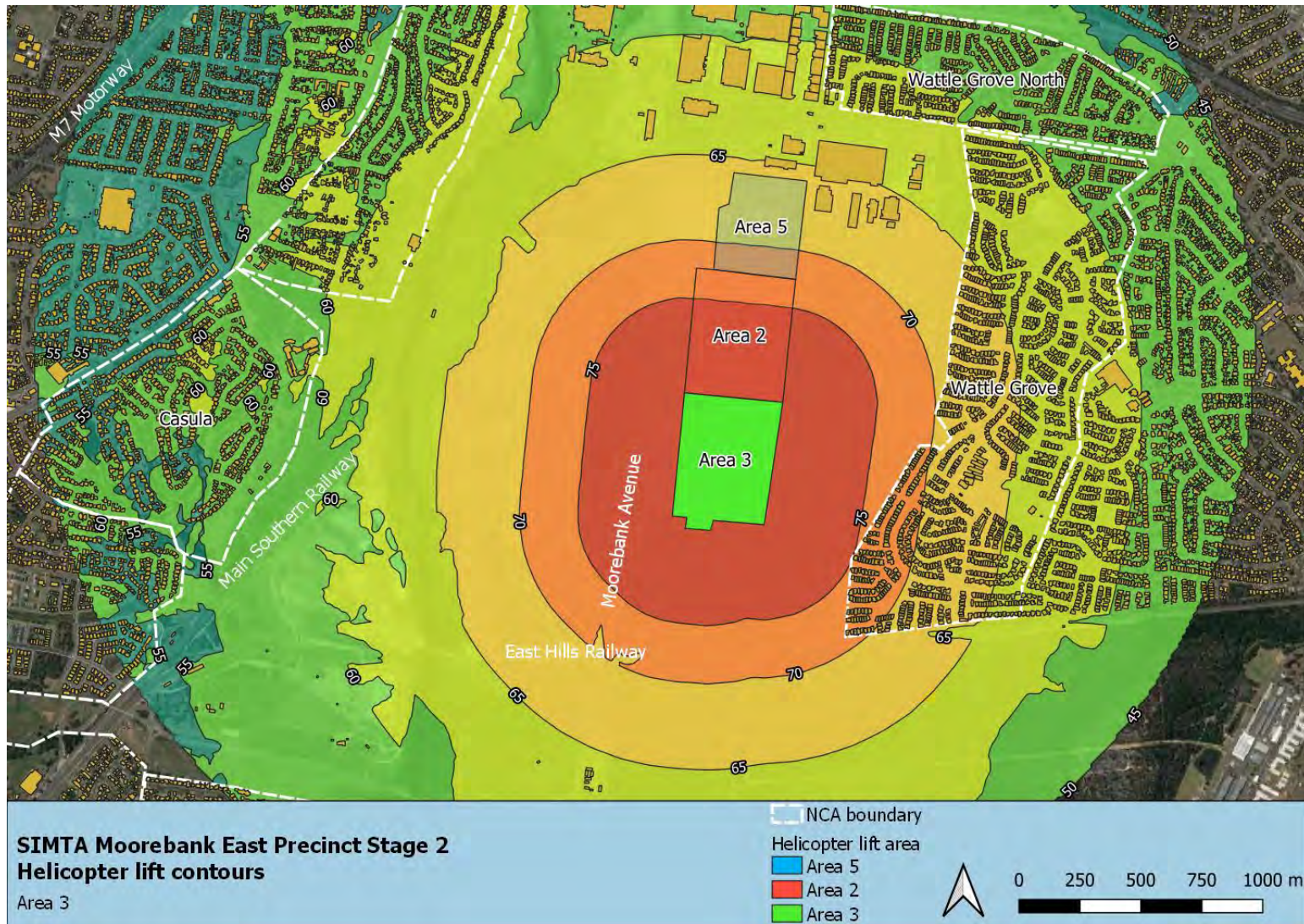


Figure 4-3 Predicted $L_{Aeq, 15 \text{ minute}}$ noise levels for helicopter lifts in Area 3

5. Summary and recommendations

Predictions demonstrate helicopter lifts are likely to exceed the NML for standard hours and OOHW period 3 and 4. Considering the source of noise, physical mitigation is not feasible while in the air. However, the following mitigation and management measures are recommended.

- Avoid working outside standard hours where possible.
- Where possible, selection of take-off and landing sites to allow buildings to be positioned between source and receiver should be considered to assist in minimizing noise impacts.
- Mitigation measures described in the project NVMP should be implemented with a focus on community consultation and notifications to managing the level of impact. Community concerns would be managed in line with the NVMP.
- As a potential high noise impact and in line with the NVMP, helicopter lifts should be performed in continuous blocks not exceeding three hours each with a minimum respite of not less than one hour between each block.
- Predicted noise levels should be verified at commencement of the works to ensure the assumptions and findings of this CNVIS are appropriate.

Appendix A. Predicted noise levels for individual receivers

(Also see attached spreadsheet)

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
103867	Casula	Casula Power House	EDU	55	55	55	55	55	50.2	49.8	48.3	
50269	Casula	1 ASTLEY WAY CASULA	RES	51	39	42	46	46	52.4	52.1	53.3	
72500	Casula	1 AUGUSTA STREET CASULA	RES	51	39	42	46	46	59.8	56.9	55	
17027	Casula	1 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	59.9	60.2	47	
101368	Casula	1 BRITANNIA DRIVE GLENFIELD	RES	51	39	42	46	46	48.8	49.2	49.3	
67767	Casula	1 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61.2	60.7	57.5	
54363	Casula	1 CATO WAY CASULA	RES	51	39	42	46	46	50.5	51.7	52	
11440	Casula	1 CUSACK AVENUE CASULA	RES	51	39	42	46	46	48.4	43.7	43	
74895	Casula	1 GIBB AVENUE CASULA	RES	51	39	42	46	46	53.2	52.5	50.4	
75522	Casula	1 HARDY PLACE CASULA	RES	51	39	42	46	46	50	51.5	50.1	
88677	Casula	1 HARPUR PLACE CASULA	RES	51	39	42	46	46	48.9	49.9	51	
64250	Casula	1 HITTER AVENUE CASULA	RES	51	39	42	46	46	54.9	54.3	52.1	
14632	Casula	1 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	54.7	54	54	
10145	Casula	1 HOLSTON STREET CASULA	RES	51	39	42	46	46	57.7	55.8	53.2	
50888	Casula	1 KELLER PLACE CASULA	RES	51	39	42	46	46	59.5	56.6	53.1	
31538	Casula	1 KENEALLY WAY CASULA	RES	51	39	42	46	46	51.5	53.1	53.4	
44153	Casula	1 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	59.1	57.1	50.9	
49863	Casula	1 LANG ROAD CASULA	RES	51	39	42	46	46	58.6	45.4	40.1	
60422	Casula	1 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	49.8	50.8	50.7	
35854	Casula	1 MCKELL AVENUE CASULA	RES	51	39	42	46	46	54.8	50.5	50.6	
75649	Casula	1 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	61	57.1	53.6	
66088	Casula	1 REGALIA CRESCENT GLENFIELD	RES	51	39	42	46	46	47.9	50	50.1	
34168	Casula	1 RUDD CLOSE CASULA	RES	51	39	42	46	46	50.5	53	53.8	
40860	Casula	1 SLESSOR ROAD CASULA	RES	51	39	42	46	46	50.7	51.4	51.4	
53025	Casula	1 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59	57.2	53.7	
93120	Casula	1 STEAD PLACE CASULA	RES	51	39	42	46	46	51.3	53.2	54.2	
96598	Casula	10 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.9	56.1	50.3	
62558	Casula	10 ATLANTA PLACE CASULA	RES	51	39	42	46	46	57.3	52.7	44.9	
63422	Casula	10 AUGUSTA STREET CASULA	RES	51	39	42	46	46	58.8	53.9	44.3	
98464	Casula	10 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.6	57	53.6	
25201	Casula	10 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	50.3	51.5	51.5	
17762	Casula	10 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61.5	59	56.7	
18554	Casula	10 CASULA ROAD CASULA	RES	51	39	42	46	46	56.1	56.5	57.1	
52050	Casula	10 CATO WAY CASULA	RES	51	39	42	46	46	49.7	53.3	54.3	
16146	Casula	10 CUSACK AVENUE CASULA	RES	51	39	42	46	46	54	55.2	53.7	
74544	Casula	10 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.4	56.6	54.6	
47569	Casula	10 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	59	59.5	54.7	
76951	Casula	10 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	55.3	48.8	46.4	
76101	Casula	10 GILMORE ROAD CASULA	RES	51	39	42	46	46	48.9	50.5	51.1	
48929	Casula	10 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	47.7	53	54.2	
48038	Casula	10 GROVE STREET CASULA	RES	51	39	42	46	46	57.5	53.6	51.3	
11977	Casula	10 HANS PLACE CASULA	RES	51	39	42	46	46	52.2	53.3	53.2	
11982	Casula	10 HARPUR PLACE CASULA	RES	51	39	42	46	46	48	49.4	50.2	
38699	Casula	10 HILTON CRESCENT CASULA	RES	51	39	42	46	46	52.4	52.1	50.5	
68137	Casula	10 HITTER AVENUE CASULA	RES	51	39	42	46	46	58	57	54.6	
79101	Casula	10 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.2	48	44.5	
62599	Casula	10 KELLER PLACE CASULA	RES	51	39	42	46	46	61.1	56.5	53.2	
29553	Casula	10 KITSON WAY CASULA	RES	51	39	42	46	46	47.9	49.7	49.8	
27114	Casula	10 KYLIE WAY CASULA	RES	51	39	42	46	46	50.4	50.3	42.4	
54910	Casula	10 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	61.4	59.2	53.9	
74984	Casula	10 LINDSAY STREET CASULA	RES	51	39	42	46	46	48.4	50.1	50.6	
23268	Casula	10 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.1	52.1	54.1	
52401	Casula	10 MARSH PARADE CASULA	RES	51	39	42	46	46	58.6	57.8	54.2	
62270	Casula	10 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	49.1	43.7	40.9	
31771	Casula	10 MCKELL AVENUE CASULA	RES	51	39	42	46	46	55.6	54.3	52.1	
62779	Casula	10 NILAND WAY CASULA	RES	51	39	42	46	46	51	52.4	52.8	
50476	Casula	10 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	56.9	54.7	51.1	
97246	Casula	10 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.8	56.9	53.7	
87677	Casula	10 RESERVE ROAD CASULA	RES	51	39	42	46	46	53.6	54.3	53.2	
60361	Casula	10 ROBERTS ROAD CASULA	RES	51	39	42	46	46	51.9	53.8	54	
24786	Casula	10 RUDD CLOSE CASULA	RES	51	39	42	46	46	51	50.9	50.8	
32465	Casula	10 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	59	57.3	54.8	
41985	Casula	10 SIDNEY PLACE CASULA	RES	51	39	42	46	46	48.9	51.1	52.2	
24648	Casula	10 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.7	51	52.9	
60399	Casula	10 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.2	58.2	55.4	
34679	Casula	10 STEAD PLACE CASULA	RES	51	39	42	46	46	50.3	51.2	52.8	
17370	Casula	10 TENNANT STREET CASULA	RES	51	39	42	46	46	49.1	50.5	51	
91486	Casula	10 WARATAH AVENUE CASULA	RES	51	39	42	46	46	55.7	54.7	52.4	
101585	Casula	10 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	61.1	53.9	53.5	
85027	Casula	10 WHITE WAY CASULA	RES	51	39	42	46	46	51.6	49.1	48.8	
70606	Casula	100 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.3	51.9	50.2	
61966	Casula	101 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51.7	53.5	54.7	
21133	Casula	101 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.9	46.7	44.3	
58865	Casula	103 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51.4	53.2	53.9	
91786	Casula	104 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.9	59.2	50.4	
33372	Casula	105 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51.4	53.1	54.4	
49404	Casula	106 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.7	41	46.2	
20035	Casula	106 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.4	58.7	54.4	
22658	Casula	107 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.1	53.1	53.7	
58362	Casula	108 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.5	49.6	49.8	
37664	Casula	108 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.1	58.5	54.6	
23889	Casula	109 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51.2	52.9	53.6	
95143	Casula	10A CLUNE CLOSE CASULA	RES	51	39	42	46	46	48.2	49.4	49.6	
49573	Casula	10A COLONIAL PLACE CASULA	RES	51	39	42	46	46	62.1	50.9	46.9	
65481	Casula	11 ALBION CRESCENT GLENFIELD	RES	51	39	42	46	46	47.6	49.3	50.5	
51061	Casula	11 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	59.2	57.4	50.5	
37703	Casula	11 ASTLEY WAY CASULA	RES	51	39	42	46	46	53.2	55	55.6	
71715	Casula	11 AUGUSTA STREET CASULA	RES	51	39	42	46	46	59.2	58.1	56	
89284	Casula	11 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	56.9	55.8	45.8	
82165	Casula	11 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	62.5	55.2	49.7	
45173	Casula	11 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	57.9	58.5	57.3	
33512	Casula	11 CASULA ROAD CASULA	RES	51	39	42	46	46	58.7	60.2	50.1	
90652	Casula	11 COLONIAL PLACE CASULA	RES	51	39	42	46	46	62.2	59.7	56.1	
49669	Casula	11 CUSACK AVENUE CASULA	RES	51	39	42	46	46	52	52.9	53.8	
58274	Casula	11 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	55.4	55.2	53.1	
101467	Casula	11 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	56	53.2	49	
58228	Casula	11 GIBSON AVENUE CASULA	RES	51	39	42	46	46	54.3	53.9	51.5	
61100	Casula	11 GILMORE ROAD CASULA	RES	51	39	42	46	46	48.8	50.5	51	
82399	Casula	11 GLORY ROAD GLENFIELD	RES	51								

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 1	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
81065	Casula	11 GROVE STREET CASULA	RES	51	39	42	46	46	56.6	55.4	51.4
81492	Casula	11 HARPUR PLACE CASULA	RES	51	39	42	46	46	48.4	50.8	51.5
22907	Casula	11 HEYSEN PLACE CASULA	RES	51	39	42	46	46	51.4	52.4	48.7
88247	Casula	11 HILTON CRESCENT CASULA	RES	51	39	42	46	46	52.4	53.2	53.1
92319	Casula	11 HITTER AVENUE CASULA	RES	51	39	42	46	46	57.3	56.2	53.9
20373	Casula	11 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.9	56.8	55.2
45825	Casula	11 KELLER PLACE CASULA	RES	51	39	42	46	46	57.6	55.7	52.9
39183	Casula	11 KENDALL DRIVE CASULA	RES	51	39	42	46	46	54.2	54.9	54
65564	Casula	11 KENNELLY WAY CASULA	RES	51	39	42	46	46	52.8	50.7	49.4
72212	Casula	11 KITSON WAY CASULA	RES	51	39	42	46	46	48.4	50.3	51.9
91331	Casula	11 LANG ROAD CASULA	RES	51	39	42	46	46	57.3	58.3	55
38649	Casula	11 LEACOCKS LANE CASULA	RES	51	39	42	46	46	54.7	51	47.8
35692	Casula	11 MARSH PARADE CASULA	RES	51	39	42	46	46	57.7	58.2	55.8
46890	Casula	11 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	51	51.8	52
12560	Casula	11 MCKELL AVENUE CASULA	RES	51	39	42	46	46	57.2	56.3	54.8
90751	Casula	11 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.1	59.7	55.6
26433	Casula	11 ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.5	53.2	53.7
88096	Casula	11 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	58.9	59	54.4
27836	Casula	11 SHUTE WAY CASULA	RES	51	39	42	46	46	50.9	52.3	52.9
29435	Casula	11 SIDNEY PLACE CASULA	RES	51	39	42	46	46	50.3	51.9	52.6
69817	Casula	11 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57	53.9	52
19160	Casula	11 STEAD PLACE CASULA	RES	51	39	42	46	46	49.1	51.1	52
49165	Casula	11 TENNANT STREET CASULA	RES	51	39	42	46	46	49.4	50.5	51.3
8964	Casula	11 TOM WAY CASULA	RES	51	39	42	46	46	53	54.1	54.3
80707	Casula	11 WARATAH AVENUE CASULA	RES	51	39	42	46	46	56	54.9	50.8
30565	Casula	11 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	59.6	58.7	54.5
17515	Casula	110 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.5	49.5	49.7
58665	Casula	110 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.1	57.7	53.6
29114	Casula	111 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51.1	52.8	53.6
43072	Casula	112 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.1	49.4	49.6
93494	Casula	112 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.3	56.9	55.2
6311	Casula	113 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.9	52.7	53.4
94615	Casula	114 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.9	49.3	49.6
83379	Casula	114 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.8	58.6	53.9
36995	Casula	115 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.9	52.6	53.4
28342	Casula	116 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.8	51.4	49.5
94668	Casula	116 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.9	56.8	54
19482	Casula	117 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51.1	54.7	55
52843	Casula	118 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.2	49.2	49.5
49070	Casula	118 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.1	55.8	50.3
34814	Casula	119 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.1	54.6	53.1
28804	Casula	11A BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	52.5	53.5	53.6
21892	Casula	11A HANS PLACE CASULA	RES	51	39	42	46	46	52.5	52.7	48.6
94913	Casula	12 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.9	58.3	54.5
34157	Casula	12 ATLANTA PLACE CASULA	RES	51	39	42	46	46	56.1	54.2	51.5
77008	Casula	12 AUGUSTA STREET CASULA	RES	51	39	42	46	46	58.4	57.6	55.3
93446	Casula	12 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.9	57.6	46.6
55778	Casula	12 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	50.1	51.1	51.4
25064	Casula	12 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	60.5	59	56.4
15248	Casula	12 COLONIAL PLACE CASULA	RES	51	39	42	46	46	61.1	53.2	47.5
46617	Casula	12 CUSACK AVENUE CASULA	RES	51	39	42	46	46	51.8	53.3	54.4
10004	Casula	12 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	55.2	53.9	52.7
64010	Casula	12 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	59.1	59.7	58.4
75817	Casula	12 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	56.7	54.1	50.4
56834	Casula	12 DURACK PLACE CASULA	RES	51	39	42	46	46	53.1	55.4	55.6
76702	Casula	12 GILMORE ROAD CASULA	RES	51	39	42	46	46	51	52.3	53.7
46965	Casula	12 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	48.1	50.6	51.6
16237	Casula	12 GROVE STREET CASULA	RES	51	39	42	46	46	56.1	55	53
45969	Casula	12 HARPUR PLACE CASULA	RES	51	39	42	46	46	50	51.5	51.9
56009	Casula	12 HILTON CRESCENT CASULA	RES	51	39	42	46	46	51.5	52.4	52.9
108175	Casula	12 HITTER AVENUE CASULA	RES	51	39	42	46	46	56	54.5	51.6
66537	Casula	12 KELLER PLACE CASULA	RES	51	39	42	46	46	60.2	57.7	54
21222	Casula	12 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.4	53.1	53.2
35700	Casula	12 KITSON WAY CASULA	RES	51	39	42	46	46	50.9	52	52.4
54990	Casula	12 KYLIE WAY CASULA	RES	51	39	42	46	46	50	50.7	38.5
82947	Casula	12 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	60.8	59.8	55.8
93338	Casula	12 LINDSAY STREET CASULA	RES	51	39	42	46	46	48.8	49.8	52.3
69619	Casula	12 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.1	52.8	55
71185	Casula	12 MARSH PARADE CASULA	RES	51	39	42	46	46	59.5	59.8	58.4
70904	Casula	12 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	48.3	50.3	50.4
3009	Casula	12 NILAND WAY CASULA	RES	51	39	42	46	46	53.5	52.4	52.6
76222	Casula	12 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	56.5	55.4	52.5
12943	Casula	12 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.1	56.9	53.5
68316	Casula	12 REGALIA CRESCENT GLENFIELD	RES	51	39	42	46	46	47.6	49.2	50.6
10783	Casula	12 ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.7	53.8	54
43829	Casula	12 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	60.4	57.5	54.4
9838	Casula	12 SLESSOR ROAD CASULA	RES	51	39	42	46	46	51.7	53.5	54.7
41482	Casula	12 STEAD PLACE CASULA	RES	51	39	42	46	46	49	50.6	53.6
76627	Casula	12 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.7	55	53
56615	Casula	12 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	61.4	57.8	56.8
13513	Casula	12 WHITE WAY CASULA	RES	51	39	42	46	46	50.5	51.1	52.6
80319	Casula	120 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.2	49.2	49.4
17658	Casula	120 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.5	57.9	52.5
42157	Casula	121A LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.9	52.3	53.2
83571	Casula	121B LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.5	54.3	53
106403	Casula	122 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.3	50.3	50.5
16981	Casula	122 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	56.9	44.7	41.5
33377	Casula	123 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.9	52.1	52.9
64284	Casula	124 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.4	51.4	51.6
96960	Casula	124 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	56.9	49	46.8
43428	Casula	125B LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.5	54	52.3
82595	Casula	126 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.5	55.1	52.6
69452	Casula	127 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.2	51.8	49.7
36604	Casula	128 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.9	58	54.9
95779	Casula	12A CASULA ROAD CASULA	RES	51	39	42	46	46	57.2	57.2	57.1
37064	Casula	12A TENNANT STREET CASULA	RES	51	39	42	46	46	50.8	52.2	52.4
43547	Casula	12B CASULA ROAD CASULA	RES	51	39	42	46	46	56.1	56.4	55.9
80794	Casula	12B CATO WAY CASULA	RES	51	39	42	46	46	50.2	50.8	51.9
84131	Casula	12B CLUNE CLOSE CASULA	RES	51	39	42	46	46	47.7	49	49.5

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
25562	Casula	13 ALBION CRESCENT GLENFIELD	RES	51	39	42	46	46	49.6	51.6	52.2	
99272	Casula	13 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57	56.7	54.5	
16636	Casula	13 ASTLEY WAY CASULA	RES	51	39	42	46	46	50.1	54	55.4	
20257	Casula	13 AUGUSTA STREET CASULA	RES	51	39	42	46	46	60.4	59.9	57	
16862	Casula	13 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.3	54.5	44.4	
63550	Casula	13 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	63.1	61.1	54.3	
26871	Casula	13 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	59	58.8	55	
81957	Casula	13 CASULA ROAD CASULA	RES	51	39	42	46	46	56.3	56.7	57.1	
42442	Casula	13 COLONIAL PLACE CASULA	RES	51	39	42	46	46	61.1	60.1	58.7	
31112	Casula	13 CUSACK AVENUE CASULA	RES	51	39	42	46	46	52.3	52.9	53.6	
103610	Casula	13 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.5	56.6	54.6	
73102	Casula	13 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	56.3	53.8	51.7	
15514	Casula	13 GILMORE ROAD CASULA	RES	51	39	42	46	46	50.1	52.3	53.4	
3232	Casula	13 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	50.2	51.9	52.8	
99632	Casula	13 HARPUR PLACE CASULA	RES	51	39	42	46	46	48.8	50.6	51.1	
53137	Casula	13 HILTON CRESCENT CASULA	RES	51	39	42	46	46	54.5	55	54.6	
106459	Casula	13 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.6	51.7	45.9	
48839	Casula	13 KELLER PLACE CASULA	RES	51	39	42	46	46	58.2	56.6	53.9	
74176	Casula	13 KITSON WAY CASULA	RES	51	39	42	46	46	48.8	50.7	50.3	
87990	Casula	13 LANG ROAD CASULA	RES	51	39	42	46	46	57.4	52.6	46.1	
56493	Casula	13 LEACOCKS LANE CASULA	RES	51	39	42	46	46	54.2	55	54.8	
9567	Casula	13 MARSH PARADE CASULA	RES	51	39	42	46	46	59.5	58.4	55.9	
55900	Casula	13 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	51.1	52.1	52.4	
45681	Casula	13 MCKELL AVENUE CASULA	RES	51	39	42	46	46	57.3	55.9	48.5	
27490	Casula	1-3 MORLEY PLACE GLENFIELD	RES	51	39	42	46	46	47.9	49.5	50.3	
83635	Casula	13 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.7	56.3	54.1	
63618	Casula	13 ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.5	53.6	53.8	
3845	Casula	13 SIDNEY PLACE CASULA	RES	51	39	42	46	46	48	49.5	49.9	
73555	Casula	13 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.8	52.2	53.4	
96528	Casula	13 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.6	56.2	53	
28598	Casula	13 STEAD PLACE CASULA	RES	51	39	42	46	46	49.2	50.5	51.5	
76172	Casula	13 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.9	52.9	51.2	
15783	Casula	13 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	59.9	59	56	
92709	Casula	130 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.2	54	39.8	
17633	Casula	132 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.9	57	54.3	
46141	Casula	136 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51.7	52.9	52.8	
32837	Casula	138 LEACOCKS LANE CASULA	RES	51	39	42	46	46	49.1	50.6	49.9	
29236	Casula	13B HARPUR PLACE CASULA	RES	51	39	42	46	46	50.8	53.3	53.5	
35144	Casula	13B TOM WAY CASULA	RES	51	39	42	46	46	53.8	52.6	52.8	
94952	Casula	14 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.7	56.2	54	
96853	Casula	14 ATLANTA PLACE CASULA	RES	51	39	42	46	46	56.2	54.4	48.5	
54101	Casula	14 AUGUSTA STREET CASULA	RES	51	39	42	46	46	58.4	58.2	55.3	
49330	Casula	14 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	49.7	51.1	51.3	
19840	Casula	14 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	59.8	59	57.5	
14573	Casula	14 CLUNE CLOSE CASULA	RES	51	39	42	46	46	47.3	48.6	49.4	
66150	Casula	14 COLONIAL PLACE CASULA	RES	51	39	42	46	46	60.4	53.3	49.8	
48083	Casula	14 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	59.2	59.2	52.3	
86958	Casula	14 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	56.2	52.6	40.6	
44712	Casula	14 DURACK PLACE CASULA	RES	51	39	42	46	46	52.3	51.6	53	
47078	Casula	14 GIBSON AVENUE CASULA	RES	51	39	42	46	46	58.1	57.6	55.8	
68513	Casula	14 GILMORE ROAD CASULA	RES	51	39	42	46	46	50.6	52.4	52.6	
4278	Casula	14 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	50.1	51.4	53.7	
32725	Casula	14 GROVE STREET CASULA	RES	51	39	42	46	46	54.1	44.2	41.2	
48701	Casula	14 HARPUR PLACE CASULA	RES	51	39	42	46	46	48.6	51.1	51.3	
64684	Casula	14 HILTON CRESCENT CASULA	RES	51	39	42	46	46	51.5	54.8	53.3	
91316	Casula	14 HITTER AVENUE CASULA	RES	51	39	42	46	46	55.7	55.4	48.3	
60763	Casula	14 KENDALL DRIVE CASULA	RES	51	39	42	46	46	53.2	53	52.8	
18012	Casula	14 KITSON WAY CASULA	RES	51	39	42	46	46	50.7	51.7	52.1	
57233	Casula	14 KYLIE WAY CASULA	RES	51	39	42	46	46	50.1	50.2	37.1	
101018	Casula	14 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	63.2	61.1	57	
87864	Casula	14 LANG ROAD CASULA	RES	51	39	42	46	46	56.1	55.3	54.3	
12045	Casula	14 LINDSAY STREET CASULA	RES	51	39	42	46	46	48.2	49.9	50.8	
40673	Casula	14 MACKELLAR STREET CASULA	RES	51	39	42	46	46	52.2	52.8	53	
15417	Casula	14 MARSH PARADE CASULA	RES	51	39	42	46	46	58.9	59.5	57.4	
89058	Casula	14 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	48.3	51	51.2	
87435	Casula	14 MCKELL AVENUE CASULA	RES	51	39	42	46	46	57.3	56.8	54.1	
37274	Casula	14 NILAND WAY CASULA	RES	51	39	42	46	46	51.3	52.8	49.6	
102902	Casula	14 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	58.4	57.7	55	
96948	Casula	14 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	60.3	57.3	53.1	
89601	Casula	14 RESERVE ROAD CASULA	RES	51	39	42	46	46	53.3	53.2	51	
62806	Casula	14 ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.4	53.8	53.9	
25455	Casula	14 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	58.9	58	54.8	
57470	Casula	14 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.6	51.1	53	
50266	Casula	14 STEAD PLACE CASULA	RES	51	39	42	46	46	50.8	52.2	52.4	
34787	Casula	14 TENNANT STREET CASULA	RES	51	39	42	46	46	49	50.3	50.8	
9564	Casula	14 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	48	49.3	53.6	
100116	Casula	14 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.6	50.2	48.7	
87697	Casula	14 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	60.8	57.8	54.6	
44338	Casula	14 WHITE WAY CASULA	RES	51	39	42	46	46	49.7	51.4	51.8	
92699	Casula	140 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	49.6	51.1	51.3	
86132	Casula	140 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.5	50.9	51.4	
48750	Casula	14-18 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	56.8	57.3	44.6	
60534	Casula	142 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.8	50.3	51.7	
96252	Casula	144 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.9	50	48.8	
75689	Casula	146 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.7	50.5	52.1	
98855	Casula	147 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.1	50.4	50.9	
21542	Casula	148 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	49	49.7	50.4	
54943	Casula	148 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.7	49.5	48.7	
44452	Casula	14A CASULA ROAD CASULA	RES	51	39	42	46	46	57.5	58.3	54.9	
41654	Casula	14A CUSACK AVENUE CASULA	RES	51	39	42	46	46	51.9	53.2	53.6	
26381	Casula	14A PENSACOLA PLACE CASULA	RES	51	39	42	46	46	56.5	55.3	52	
48716	Casula	14B CASULA ROAD CASULA	RES	51	39	42	46	46	55.7	57	55.1	
61309	Casula	14B SIDNEY PLACE CASULA	RES	51	39	42	46	46	48.9	49.9	51	
87938	Casula	15 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.2	50.2	51.8	
65739	Casula	15 ASTLEY WAY CASULA	RES	51	39	42	46	46	49.9	52.2	52.9	
65155	Casula	15 AUGUSTA STREET CASULA	RES	51	39	42	46	46	60.3	60	56.8	
47237	Casula	15 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61.5	61.2	58.2	
21166	Casula	15 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58	58.5	53.7	
10663	Casula	15 CASULA ROAD CASULA	RES	51	39	42	46	46	56.8	58.4	57.1	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
6329	Casula	15 COLONIAL PLACE CASULA	RES	51	39	42	46	46	60.9	59.1	55.3	
29079	Casula	15 CUSACK AVENUE CASULA	RES	51	39	42	46	46	53.2	55.7	56.4	
102244	Casula	15 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	55.5	55.5	53.7	
65682	Casula	15 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	56.4	56.1	54.2	
52374	Casula	15 GILMORE ROAD CASULA	RES	51	39	42	46	46	51.4	52.6	53.6	
104121	Casula	15 GROVE STREET CASULA	RES	51	39	42	46	46	55.2	53	47.6	
18794	Casula	15 HILTON CRESCENT CASULA	RES	51	39	42	46	46	51.5	52.4	52.3	
95228	Casula	15 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.1	55	53.5	
40488	Casula	15 KELLER PLACE CASULA	RES	51	39	42	46	46	59.4	56.9	54.3	
6540	Casula	15 KENALLY WAY CASULA	RES	51	39	42	46	46	54.1	56.3	56.5	
95007	Casula	15 KITSON WAY CASULA	RES	51	39	42	46	46	49.6	50.2	51.3	
24466	Casula	15 LANG ROAD CASULA	RES	51	39	42	46	46	58.2	58.7	57	
53030	Casula	15 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	48.5	49.5	49.7	
74097	Casula	15 MCKELL AVENUE CASULA	RES	51	39	42	46	46	54.1	56.1	54.9	
89376	Casula	15 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.6	56.6	53.1	
52353	Casula	15 REGALIA CRESCENT GLENFIELD	RES	51	39	42	46	46	49.5	51.2	52.3	
37012	Casula	15 ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.3	53.5	53.6	
35733	Casula	15 SHUTE WAY CASULA	RES	51	39	42	46	46	50.9	51.1	52.4	
103546	Casula	15 SIDNEY PLACE CASULA	RES	51	39	42	46	46	51.9	52.4	52.5	
23309	Casula	15 SLESSOR ROAD CASULA	RES	51	39	42	46	46	52	54.7	55.9	
69110	Casula	15 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.7	57.2	54.3	
68695	Casula	15 STEAD PLACE CASULA	RES	51	39	42	46	46	48.7	50.4	51.4	
14618	Casula	15 TENNANT STREET CASULA	RES	51	39	42	46	46	51.4	51	49	
23882	Casula	15 TOM WAY CASULA	RES	51	39	42	46	46	52.6	53.9	54	
64127	Casula	15 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	60.1	59.2	55.7	
95724	Casula	150 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.4	51.3	52.5	
26784	Casula	150 LEACOCKS LANE CASULA	RES	51	39	42	46	46	49.4	51.4	52.5	
20150	Casula	151 LEACOCKS LANE CASULA	RES	51	39	42	46	46	49.2	52.6	53.2	
93881	Casula	152 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	51.1	52.9	52.2	
15987	Casula	152 LEACOCKS LANE CASULA	RES	51	39	42	46	46	49.5	49.6	51.2	
15073	Casula	153 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.6	52.5	51.9	
44478	Casula	154 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.1	50.1	52.1	
25748	Casula	155 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51.3	52.4	53.2	
87192	Casula	156 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.1	49.7	50.7	
85341	Casula	157 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.9	52.3	53.2	
9575	Casula	158 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.7	51.8	53.6	
9468	Casula	159 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51	52.5	53.2	
54115	Casula	15A CASULA ROAD CASULA	RES	51	39	42	46	46	55.1	56.7	56	
51672	Casula	15A HARPUR PLACE CASULA	RES	51	39	42	46	46	50.1	52.3	53.4	
32981	Casula	15B BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	51.4	52.2	51.1	
74587	Casula	15B CANBERRA AVENUE CASULA	RES	51	39	42	46	46	56.7	57.4	53.2	
77585	Casula	15B HARPUR PLACE CASULA	RES	51	39	42	46	46	49.1	51.2	51.4	
74908	Casula	16 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.2	56.3	52.8	
20344	Casula	16 ATLANTA PLACE CASULA	RES	51	39	42	46	46	56	55.7	51.8	
50018	Casula	16 AUGUSTA STREET CASULA	RES	51	39	42	46	46	58	58.3	55.4	
36190	Casula	16 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	49.2	51	51.8	
94560	Casula	16 CASULA ROAD CASULA	RES	51	39	42	46	46	55.9	57.4	56.6	
63107	Casula	16 CATO WAY CASULA	RES	51	39	42	46	46	50.2	51	51.1	
67694	Casula	16 COLONIAL PLACE CASULA	RES	51	39	42	46	46	62.8	59.6	58.7	
41681	Casula	16 CUSACK AVENUE CASULA	RES	51	39	42	46	46	52.1	54.6	53.9	
83912	Casula	16 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	59.2	59.8	58.6	
85472	Casula	16 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	56.5	54.7	53.7	
13027	Casula	16 FORTUNE STREET GLENFIELD	RES	51	39	42	46	46	47.5	49.2	50.2	
91480	Casula	16 GIBSON AVENUE CASULA	RES	51	39	42	46	46	54.3	54.1	52.6	
71020	Casula	16 GILMORE ROAD CASULA	RES	51	39	42	46	46	49	50.6	51.4	
51803	Casula	16 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	48.7	50.1	52.1	
52449	Casula	16 HILTON CRESCENT CASULA	RES	51	39	42	46	46	52.2	52.9	52.2	
69182	Casula	16 HITTER AVENUE CASULA	RES	51	39	42	46	46	56.5	53.8	51.7	
63658	Casula	16 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.1	53.3	53.4	
31516	Casula	16 KITSON WAY CASULA	RES	51	39	42	46	46	48.5	50	50.5	
53443	Casula	16 KYLIE WAY CASULA	RES	51	39	42	46	46	51	52	52	
48491	Casula	16 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	60.7	58.7	55.2	
32274	Casula	16 LINDSAY STREET CASULA	RES	51	39	42	46	46	49	49.8	47.7	
18734	Casula	16 MARSH PARADE CASULA	RES	51	39	42	46	46	60.4	59.4	57.2	
14712	Casula	16 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	48.2	50	50.1	
97897	Casula	16 MCKELL AVENUE CASULA	RES	51	39	42	46	46	56.9	55.6	52.6	
38130	Casula	16 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	59.9	57.7	54.1	
72975	Casula	16 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	60.1	55.8	52.9	
93730	Casula	16 RESERVE ROAD CASULA	RES	51	39	42	46	46	53.8	53.7	50.1	
33584	Casula	16 RUSHTON PLACE CASULA	RES	51	39	42	46	46	59	59.5	58.6	
99341	Casula	16 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	62.5	61.8	56	
47938	Casula	16 SIDNEY PLACE CASULA	RES	51	39	42	46	46	48.2	49.5	50	
18759	Casula	16 SLESSOR ROAD CASULA	RES	51	39	42	46	46	51.8	53.6	54.7	
29282	Casula	16 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.4	56	53.1	
81567	Casula	16 STEAD PLACE CASULA	RES	51	39	42	46	46	51.4	53.1	54.1	
16300	Casula	16 TENNANT STREET CASULA	RES	51	39	42	46	46	49.2	50.5	51	
55555	Casula	16 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	48	51.6	53.4	
67954	Casula	16 WARATAH AVENUE CASULA	RES	51	39	42	46	46	53.7	52.2	51.8	
14949	Casula	16 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	61.2	60.1	54.7	
61427	Casula	16 WHITE WAY CASULA	RES	51	39	42	46	46	49.6	50.2	45	
88521	Casula	160 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	51.5	52.1	51.7	
53427	Casula	160 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.8	50.4	51.2	
30770	Casula	161 LEACOCKS LANE CASULA	RES	51	39	42	46	46	51.2	52.6	53.2	
63417	Casula	162 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	49.6	51.5	53.8	
53417	Casula	164 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.7	49.9	50.9	
54231	Casula	164 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.3	49.9	51	
92237	Casula	165 LEACOCKS LANE CASULA	RES	51	39	42	46	46	49.6	50.5	50.5	
71924	Casula	169 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.4	51.9	53.5	
85514	Casula	16A HARPUR PLACE CASULA	RES	51	39	42	46	46	44.8	45	42.5	
56403	Casula	16A ROBERTS ROAD CASULA	RES	51	39	42	46	46	51.9	53.3	52.9	
97110	Casula	16B HARPUR PLACE CASULA	RES	51	39	42	46	46	47.7	49.1	49.7	
102066	Casula	17 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.8	51	47.4	
54005	Casula	17 AUGUSTA STREET CASULA	RES	51	39	42	46	46	61.9	61.4	55.6	
77899	Casula	17 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58.4	59	54.3	
95693	Casula	17 COLONIAL PLACE CASULA	RES	51	39	42	46	46	62.7	62	55.3	
23201	Casula	17 CUSACK AVENUE CASULA	RES	51	39	42	46	46	54.2	54.7	54.2	
103612	Casula	17 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.5	57	55.1	
24533	Casula	17 GIBSON AVENUE CASULA	RES	51	39	42	46	46	54.6	53.8	52	
57099	Casula	17 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.7	54.3	52	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 1	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
49983	Casula	17 GROVE STREET CASULA	RES	51	39	42	46	46	54.1	53.2	51
97066	Casula	17 HARPUR PLACE CASULA	RES	51	39	42	46	46	48.7	50.6	50.8
37894	Casula	17 HILTON CRESCENT CASULA	RES	51	39	42	46	46	51.4	52.3	52.9
106481	Casula	17 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.6	53	52.4
34969	Casula	17 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.8	52.4	53
90988	Casula	17 KITSON WAY CASULA	RES	51	39	42	46	46	49.6	50.1	51.2
26544	Casula	17 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53.3	54.8	55.1
56242	Casula	17 MARSH PARADE CASULA	RES	51	39	42	46	46	61.5	61.8	58.5
95325	Casula	17 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	50.8	49.4	49.5
51413	Casula	17 MCKELL AVENUE CASULA	RES	51	39	42	46	46	54.9	55.3	54.9
29141	Casula	17 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.5	56.1	53.9
11965	Casula	17 SIDNEY PLACE CASULA	RES	51	39	42	46	46	49.7	48.6	48.5
45211	Casula	17 SLESSOR ROAD CASULA	RES	51	39	42	46	46	50.7	51.8	52
83971	Casula	17 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.3	56.6	54.5
48271	Casula	17 STEAD PLACE CASULA	RES	51	39	42	46	46	48.6	50.5	51.6
6026	Casula	17 TENNANT STREET CASULA	RES	51	39	42	46	46	49.4	50	49.7
18255	Casula	17 TOM WAY CASULA	RES	51	39	42	46	46	52.6	53.8	54
17509	Casula	17 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.4	53	50.9
95370	Casula	17 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	62.7	59.2	56
11530	Casula	171 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.4	50.7	51.6
17156	Casula	17-19 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.9	54.8	54.8
46202	Casula	172 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48	49.4	50.8
64101	Casula	173 LEACOCKS LANE CASULA	RES	51	39	42	46	46	49.6	51.7	52.1
23417	Casula	175 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.7	52.3	53.1
6485	Casula	176 LEACOCKS LANE CASULA	RES	51	39	42	46	46	47.7	49.1	50.7
63812	Casula	177 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.2	49.5	52.5
65053	Casula	179 LEACOCKS LANE CASULA	RES	51	39	42	46	46	48.8	51.3	52
46325	Casula	17A BUCKLAND ROAD CASULA	RES	51	39	42	46	46	62.4	62	57.9
106011	Casula	17A DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	54	54.2	53.1
77475	Casula	17A GILMORE ROAD CASULA	RES	51	39	42	46	46	49.5	50.4	51.2
13597	Casula	17A KENEALLY WAY CASULA	RES	51	39	42	46	46	54.8	55.7	54.5
73433	Casula	17A ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.2	53.4	53.8
106015	Casula	17B DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	53.8	53.5	51.5
78034	Casula	17B GILMORE ROAD CASULA	RES	51	39	42	46	46	49.1	50.7	51.5
73030	Casula	17B ROBERTS ROAD CASULA	RES	51	39	42	46	46	50.7	51	46.1
80790	Casula	17C ROBERTS ROAD CASULA	RES	51	39	42	46	46	49.9	51.5	53
52987	Casula	17D ROBERTS ROAD CASULA	RES	51	39	42	46	46	49.3	50.1	51.2
90536	Casula	17E ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.4	53.8	52.8
66588	Casula	17F ROBERTS ROAD CASULA	RES	51	39	42	46	46	53	53.3	53.5
99348	Casula	18 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.5	58.8	52.8
22918	Casula	18 ASTLEY WAY CASULA	RES	51	39	42	46	46	49.9	51	51.1
68669	Casula	18 AUGUSTA STREET CASULA	RES	51	39	42	46	46	58.5	57.8	54
45767	Casula	18 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	59.2	58.8	57.1
97781	Casula	18 CASULA ROAD CASULA	RES	51	39	42	46	46	57.5	57.1	56.5
9916	Casula	18 CATO WAY CASULA	RES	51	39	42	46	46	51.4	53.6	53.9
47595	Casula	18 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	58.8	61	58.4
80281	Casula	18 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	55.7	54.8	50.1
24687	Casula	18 FORTUNE STREET GLENFIELD	RES	51	39	42	46	46	47.6	49.3	49.5
87766	Casula	18 GIBSON AVENUE CASULA	RES	51	39	42	46	46	54	54.1	53.2
38689	Casula	18 GILMORE ROAD CASULA	RES	51	39	42	46	46	50.2	51.9	52.2
5546	Casula	18 GROVE STREET CASULA	RES	51	39	42	46	46	54.6	54.5	51.9
91730	Casula	18 HARPUR PLACE CASULA	RES	51	39	42	46	46	47.7	48.9	44.9
66624	Casula	18 HITTER AVENUE CASULA	RES	51	39	42	46	46	53.6	53.6	50.5
9085	Casula	18 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52	53	53.2
65594	Casula	18 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	60.7	58.6	55.1
68953	Casula	18 LINDSAY STREET CASULA	RES	51	39	42	46	46	50	51.7	51.9
74090	Casula	18 MARSH PARADE CASULA	RES	51	39	42	46	46	60	60	55.9
75835	Casula	18 MCKELL AVENUE CASULA	RES	51	39	42	46	46	56.5	55.5	51.1
20925	Casula	18 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	56.1	55.4	52.6
57332	Casula	18 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	60	58.4	53.8
16150	Casula	18 ROBERTS ROAD CASULA	RES	51	39	42	46	46	51.8	53.5	55.9
28503	Casula	18 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	61.3	59.2	56
9672	Casula	18 SIDNEY PLACE CASULA	RES	51	39	42	46	46	50.3	51	50.7
92554	Casula	18 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.3	56	53.2
45164	Casula	18 TENNANT STREET CASULA	RES	51	39	42	46	46	49.2	50.3	50.7
20054	Casula	18 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	48.1	49.4	53.1
77265	Casula	18 WARATAH AVENUE CASULA	RES	51	39	42	46	46	55.1	53.1	50.8
33834	Casula	18 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	59.6	47.7	50.9
35062	Casula	18 WHITE WAY CASULA	RES	51	39	42	46	46	49.8	51	53.4
17421	Casula	183 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.4	51.7	52
40528	Casula	185 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.3	51.7	52.6
16062	Casula	187 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.2	51.4	51.9
56643	Casula	18A KITSON WAY CASULA	RES	51	39	42	46	46	48.7	49.9	50.2
8886	Casula	18A SLESSOR ROAD CASULA	RES	51	39	42	46	46	50.5	51.2	52
16168	Casula	18B GLORY ROAD GLENFIELD	RES	51	39	42	46	46	51	52.6	54
94734	Casula	18B KITSON WAY CASULA	RES	51	39	42	46	46	43.1	49.7	50.8
15485	Casula	18B NILAND WAY CASULA	RES	51	39	42	46	46	53.7	54.6	52.5
92764	Casula	18C KITSON WAY CASULA	RES	51	39	42	46	46	48.4	49.6	50.9
78196	Casula	19 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.2	48.1	53.5
90704	Casula	19 AUGUSTA STREET CASULA	RES	51	39	42	46	46	60.4	58.5	55.1
94019	Casula	19 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61.4	63	60.2
48742	Casula	19 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	56	56.6	56.3
85884	Casula	19 COLONIAL PLACE CASULA	RES	51	39	42	46	46	60.5	59.9	50.8
88505	Casula	19 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	53.5	54.5	53.9
97052	Casula	19 GIBSON AVENUE CASULA	RES	51	39	42	46	46	54.7	53.7	52
102231	Casula	19 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56	53.8	53.1
83123	Casula	19 GROVE STREET CASULA	RES	51	39	42	46	46	53.9	53.2	50.8
57391	Casula	19 HARPUR PLACE CASULA	RES	51	39	42	46	46	45.8	48.7	49.3
60465	Casula	19 HILTON CRESCENT CASULA	RES	51	39	42	46	46	53	52.2	52.2
13585	Casula	19 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57	57.3	55.5
21867	Casula	19 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.7	52.5	51.6
69366	Casula	19 KITSON WAY CASULA	RES	51	39	42	46	46	48.7	50.4	50.9
60313	Casula	19 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.7	52.2	52.6
49804	Casula	19 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	48.6	49.3	49.5
62582	Casula	19 MCKELL AVENUE CASULA	RES	51	39	42	46	46	55.1	54.7	52.8
75082	Casula	19 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.6	56.7	53.7
55749	Casula	19 REGALIA CRESCENT GLENFIELD	RES	51	39	42	46	46	49	51.5	50.4
61877	Casula	19 SIDNEY PLACE CASULA	RES	51	39	42	46	46	49.7	50.6	51.1
63567	Casula	19 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.6	53.2	55.3

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
9590 Casula		19 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	55	54.1	50.1	
101254 Casula		19 TENNANT STREET CASULA	RES	51	39	42	46	46	52	52.8	50.9	
13378 Casula		19 TOM WAY CASULA	RES	51	39	42	46	46	52.5	53.8	53.9	
93049 Casula		19 WARATAH AVENUE CASULA	RES	51	39	42	46	46	53.8	53.4	51.2	
35203 Casula		19 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	62.2	54.2	51.6	
16090 Casula		19A ROBERTS ROAD CASULA	RES	51	39	42	46	46	52	53.2	53.4	
91967 Casula		19B DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	57.1	56.1	53.5	
77659 Casula		19B GROVE STREET CASULA	RES	51	39	42	46	46	52.3	50.4	48.1	
53216 Casula		19B ROBERTS ROAD CASULA	RES	51	39	42	46	46	51.5	47.5	44	
93455 Casula		1A ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.6	56.1	53.8	
76647 Casula		1A DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	57.1	57.7	49.4	
27064 Casula		1A MARSH PARADE CASULA	RES	51	39	42	46	46	57.5	57.2	55.4	
55671 Casula		1A ROBERTS ROAD CASULA	RES	51	39	42	46	46	54	54.7	54.1	
81881 Casula		1B ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.5	56.2	53.5	
83134 Casula		1B DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	57.1	57.5	54.1	
35467 Casula		1B MARSH PARADE CASULA	RES	51	39	42	46	46	57.4	54.5	52.9	
40415 Casula		1B NEVIL WAY CASULA	RES	51	39	42	46	46	49	49.6	42.4	
88655 Casula		1B SIDNEY PLACE CASULA	RES	51	39	42	46	46	48.5	49.8	50.4	
88062 Casula		1C ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.8	56.2	53.9	
88871 Casula		2 AUGUSTA STREET CASULA	RES	51	39	42	46	46	59.3	57.3	54.9	
74154 Casula		2 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.7	58.5	52	
70296 Casula		2 CASULA ROAD CASULA	RES	51	39	42	46	46	59.2	60.3	58.1	
10273 Casula		2 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	55.7	54	47.9	
82748 Casula		2 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	57	54.9	46.8	
54124 Casula		2 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	57.3	53.7	38	
75584 Casula		2 GIBB AVENUE CASULA	RES	51	39	42	46	46	50.9	51.3	51.3	
29104 Casula		2 GROVE STREET CASULA	RES	51	39	42	46	46	57.1	56	52.7	
16969 Casula		2 HARPUR PLACE CASULA	RES	51	39	42	46	46	48.3	50.3	51.3	
53819 Casula		2 HITTER AVENUE CASULA	RES	51	39	42	46	46	55.7	54.9	52.4	
81601 Casula		2 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	54.7	53.7	52.3	
9229 Casula		2 KELLER PLACE CASULA	RES	51	39	42	46	46	57.6	51.9	52.7	
70755 Casula		2 KENDALL DRIVE CASULA	RES	51	39	42	46	46	54.3	55	54.9	
50546 Casula		2 KYLIE WAY CASULA	RES	51	39	42	46	46	52.1	53.2	49.5	
69783 Casula		2 LINDSAY STREET CASULA	RES	51	39	42	46	46	48.6	50.1	51.8	
89987 Casula		2 MARSH PARADE CASULA	RES	51	39	42	46	46	56.8	56.1	52.4	
108160 Casula		2 MCKELL AVENUE CASULA	RES	51	39	42	46	46	54.7	53.4	50	
87478 Casula		2 RUDD CLOSE CASULA	RES	51	39	42	46	46	50.6	51.4	51.9	
48628 Casula		2 SHUTE WAY CASULA	RES	51	39	42	46	46	51.3	52.1	50.5	
38579 Casula		2 SLESSOR ROAD CASULA	RES	51	39	42	46	46	48.9	50.7	51.9	
80768 Casula		2 STEAD PLACE CASULA	RES	51	39	42	46	46	49.2	50	50.3	
56466 Casula		2 WHITE WAY CASULA	RES	51	39	42	46	46	50	50.6	42.7	
73829 Casula		20 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.8	54.1	54	
77785 Casula		20 AUGUSTA STREET CASULA	RES	51	39	42	46	46	58.5	58.9	57.1	
51987 Casula		20 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57	57.5	56.9	
10367 Casula		20 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61.3	61.7	58.9	
62911 Casula		20 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	57.6	57.4	52.4	
34494 Casula		20 CASULA ROAD CASULA	RES	51	39	42	46	46	55.8	59.4	57.8	
4987 Casula		20 CATO WAY CASULA	RES	51	39	42	46	46	50.1	50	50.2	
53021 Casula		20 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	53.5	51.5	45.4	
75116 Casula		20 FORTUNE STREET GLENFIELD	RES	51	39	42	46	46	48.2	50	51.2	
102170 Casula		20 GIBSON AVENUE CASULA	RES	51	39	42	46	46	56.3	53.2	51.1	
28683 Casula		20 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	50.8	53	54.3	
88866 Casula		20 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.3	53.8	50.1	
79633 Casula		20 GROVE STREET CASULA	RES	51	39	42	46	46	55.5	53.3	51	
24456 Casula		20 HARPUR PLACE CASULA	RES	51	39	42	46	46	47.4	49.1	49.7	
59522 Casula		20 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57	57.1	55.7	
54555 Casula		20 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.9	52.7	52.6	
80751 Casula		20 LINDSAY STREET CASULA	RES	51	39	42	46	46	48.3	50.7	53.1	
34108 Casula		20 MARSH PARADE CASULA	RES	51	39	42	46	46	60	59	57.4	
36365 Casula		20 MCKELL AVENUE CASULA	RES	51	39	42	46	46	55.2	55.1	52.6	
29194 Casula		20 NILAND WAY CASULA	RES	51	39	42	46	46	51.7	52.8	52.5	
102908 Casula		20 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	58.9	58	55.8	
100311 Casula		20 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.9	58.6	55.6	
78750 Casula		20 ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.1	53.6	53.8	
97693 Casula		20 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	59.1	57.7	54.6	
37227 Casula		20 SIDNEY PLACE CASULA	RES	51	39	42	46	46	48.7	50.2	50.3	
87089 Casula		20 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.5	56.1	53.2	
16780 Casula		20 TENNANT STREET CASULA	RES	51	39	42	46	46	50.6	50.2	44.8	
53506 Casula		20 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	48.7	50.2	50.5	
100569 Casula		20 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.8	51.2	50.6	
47104 Casula		20 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	62.9	61.4	58.8	
66855 Casula		20 WHITE WAY CASULA	RES	51	39	42	46	46	49.6	50.4	51.1	
4252 Casula		20-30 LEACOCKS LANE CASULA	EDU	55	55	55	55	55	58.8	59.7	59.1	
41298 Casula		20A CANBERRA AVENUE CASULA	RES	51	39	42	46	46	54.6	55	55.4	
82097 Casula		20A KITSON WAY CASULA	RES	51	39	42	46	46	48.4	49.6	50.9	
93605 Casula		20B KITSON WAY CASULA	RES	51	39	42	46	46	48.4	49.6	50	
69103 Casula		20B SLESSOR ROAD CASULA	RES	51	39	42	46	46	49	50.6	51.6	
84089 Casula		21 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.6	57.7	56.3	
46698 Casula		21 AUGUSTA STREET CASULA	RES	51	39	42	46	46	60.3	59.4	56.3	
29326 Casula		21 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61.2	61.1	58.3	
35405 Casula		21 CASULA ROAD CASULA	RES	51	39	42	46	46	57.7	58.3	55.4	
80637 Casula		21 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	53.9	53.2	51.4	
20000 Casula		21 FORTUNE STREET GLENFIELD	RES	51	39	42	46	46	48.3	49.4	51.2	
60700 Casula		21 GIBSON AVENUE CASULA	RES	51	39	42	46	46	53.8	53.6	51.9	
49727 Casula		21 GILMORE ROAD CASULA	RES	51	39	42	46	46	49.4	50.3	51.3	
32561 Casula		21 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	48.1	47.6	47.8	
90201 Casula		21 GROVE STREET CASULA	RES	51	39	42	46	46	53.8	53	50.7	
21923 Casula		21 HILTON CRESCENT CASULA	RES	51	39	42	46	46	53.8	52.2	52	
62467 Casula		21 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.2	50.9	43.9	
26211 Casula		21 KENDALL DRIVE CASULA	RES	51	39	42	46	46	54	54.8	54.8	
82515 Casula		21 KITSON WAY CASULA	RES	51	39	42	46	46	48.2	50.3	51	
70684 Casula		21 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.9	54.5	54.4	
53188 Casula		21 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53.5	54.5	54.8	
55306 Casula		21 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	47.1	50.2	50.4	
91875 Casula		21 MCKELL AVENUE CASULA	RES	51	39	42	46	46	55.3	54.6	50.4	
72571 Casula		21 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.8	56.6	53	
68301 Casula		21 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.4	51.4	53.6	
40533 Casula		21 TENNANT STREET CASULA	RES	51	39	42	46	46	49.4	50.4	48.3	
42890 Casula		21 TOM WAY CASULA	RES	51	39	42	46	46	52.3	53.7	53.8	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
68470	Casula	21 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.3	53.1	51	
12196	Casula	21 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	62	59.3	55.2	
54940	Casula	21A CANBERRA AVENUE CASULA	RES	51	39	42	46	46	57.5	58.6	56.6	
101725	Casula	21A DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	53.7	53.4	51.4	
27464	Casula	21A ROBERTS ROAD CASULA	RES	51	39	42	46	46	49.8	51.6	43.7	
92861	Casula	21B DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	57.4	56.9	55	
31392	Casula	21B GILMORE ROAD CASULA	RES	51	39	42	46	46	48.9	51.3	53	
44876	Casula	21B ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.3	53.8	52.2	
96176	Casula	22 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	59	56.7	54.6	
59791	Casula	22 AUGUSTA STREET CASULA	RES	51	39	42	46	46	58.6	59.1	56.8	
85111	Casula	22 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.1	57.2	44.4	
89131	Casula	22 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58.5	57.9	52	
95024	Casula	22 CASULA ROAD CASULA	RES	51	39	42	46	46	57.7	58.1	54.7	
47644	Casula	22 CATO WAY CASULA	RES	51	39	42	46	46	49.2	43.4	45.2	
98970	Casula	22 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	55.7	55.7	53.4	
39519	Casula	22 FORTUNE STREET GLENFIELD	RES	51	39	42	46	46	48.5	49.8	49.9	
34508	Casula	22 GIBSON AVENUE CASULA	RES	51	39	42	46	46	57.5	57.1	54.8	
71618	Casula	22 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.6	53.4	50.3	
55472	Casula	22 GROVE STREET CASULA	RES	51	39	42	46	46	52.3	49.1	46.4	
44677	Casula	22 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.3	53.3	52.7	
43708	Casula	22 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.7	52.6	52.5	
88617	Casula	22 KITSON WAY CASULA	RES	51	39	42	46	46	48.9	50.5	50.8	
78054	Casula	22 LINDSAY STREET CASULA	RES	51	39	42	46	46	49.9	52	53.8	
52318	Casula	22 MARSH PARADE CASULA	RES	51	39	42	46	46	62.1	62.5	59.6	
55635	Casula	22 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	57.7	55.5	55	
17588	Casula	22 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.8	58.5	55	
61476	Casula	22 RESERVE ROAD CASULA	RES	51	39	42	46	46	55.9	54.1	50.3	
13718	Casula	22 ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.2	53.4	53.6	
50705	Casula	22 SIDNEY PLACE CASULA	RES	51	39	42	46	46	48	49.1	49.4	
77314	Casula	22 SLESSOR ROAD CASULA	RES	51	39	42	46	46	48.7	47.6	47.8	
41406	Casula	22 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.7	56.2	53.2	
35969	Casula	22 TENNANT STREET CASULA	RES	51	39	42	46	46	49.2	50.4	50.7	
37997	Casula	22 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	48.5	50.7	51.9	
42137	Casula	22 WARATAH AVENUE CASULA	RES	51	39	42	46	46	53.7	49.3	48.2	
26938	Casula	22 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	60.9	58.7	55.1	
53883	Casula	22 WHITE WAY CASULA	RES	51	39	42	46	46	52.1	53.3	51.5	
20731	Casula	22A GROVE STREET CASULA	RES	51	39	42	46	46	55.1	54.5	51	
22166	Casula	22A KITSON WAY CASULA	RES	51	39	42	46	46	51	52.2	52.5	
74503	Casula	22B KITSON WAY CASULA	RES	51	39	42	46	46	51	51.9	52.1	
92283	Casula	23 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.7	54	45.5	
98620	Casula	23 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.5	57.7	46.3	
28823	Casula	23 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	63.4	62.4	58.2	
68018	Casula	23 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	56.9	57.5	54.8	
95727	Casula	23 CASULA ROAD CASULA	RES	51	39	42	46	46	55.5	56.1	56.1	
96228	Casula	23 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	55	54.3	52.6	
34637	Casula	23 FORTUNE STREET GLENFIELD	RES	51	39	42	46	46	47.6	49.5	49.7	
39719	Casula	23 GIBSON AVENUE CASULA	RES	51	39	42	46	46	54.7	54.9	53.9	
63535	Casula	23 GILMORE ROAD CASULA	RES	51	39	42	46	46	49	50.2	49.5	
90252	Casula	23 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.5	54	51.7	
64556	Casula	23 HILTON CRESCENT CASULA	RES	51	39	42	46	46	51.2	53	52.9	
59741	Casula	23 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.6	50.5	51.2	
50459	Casula	23 KENDALL DRIVE CASULA	RES	51	39	42	46	46	53.8	54.3	53.6	
70007	Casula	23 KITSON WAY CASULA	RES	51	39	42	46	46	49.1	49.8	50.5	
52414	Casula	23 LEACOCKS LANE CASULA	RES	51	39	42	46	46	55.8	56.5	56.3	
58913	Casula	23 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53	54.4	54.6	
23375	Casula	23 MARSH PARADE CASULA	RES	51	39	42	46	46	59	52.6	41	
33992	Casula	23 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	50.6	51.5	50.8	
99243	Casula	23 MCKELL AVENUE CASULA	RES	51	39	42	46	46	59.2	57.1	54.6	
30857	Casula	23 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.3	56.6	52.9	
25722	Casula	23 ROBERTS ROAD CASULA	RES	51	39	42	46	46	51.4	52.7	53.2	
24817	Casula	23 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.4	51.3	53.4	
62980	Casula	23 TENNANT STREET CASULA	RES	51	39	42	46	46	50.3	50.8	49.1	
37887	Casula	23 TOM WAY CASULA	RES	51	39	42	46	46	52.3	53.6	53.8	
86280	Casula	23 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.1	53.4	51.2	
51643	Casula	23B ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.2	57.8	45.1	
69958	Casula	24 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.3	57.7	49.3	
12595	Casula	24 AUGUSTA STREET CASULA	RES	51	39	42	46	46	59.7	59.8	57.3	
70768	Casula	24 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	55	54.9	44	
59036	Casula	24 CASULA ROAD CASULA	RES	51	39	42	46	46	55.4	56.1	49	
38453	Casula	24 CATO WAY CASULA	RES	51	39	42	46	46	50.4	51.7	45	
83254	Casula	24 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	54.9	55.4	51.8	
73769	Casula	24 GIBSON AVENUE CASULA	RES	51	39	42	46	46	56.1	51.2	47.4	
91169	Casula	24 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.2	55.5	52.2	
51308	Casula	24 GROVE STREET CASULA	RES	51	39	42	46	46	55	53.1	49.8	
43161	Casula	24 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57	57.6	55.8	
64427	Casula	24 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.6	52.6	52.5	
20233	Casula	24 KITSON WAY CASULA	RES	51	39	42	46	46	49.8	51.3	51.6	
75315	Casula	24 LINDSAY STREET CASULA	RES	51	39	42	46	46	49.2	51.1	51.9	
44804	Casula	24 MARSH PARADE CASULA	RES	51	39	42	46	46	59.8	59.5	58	
42425	Casula	24 NILAND WAY CASULA	RES	51	39	42	46	46	51.1	52.3	52.5	
89747	Casula	24 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	56.4	56.5	55	
95807	Casula	24 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	57	58.1	55.5	
31993	Casula	24 SIDNEY PLACE CASULA	RES	51	39	42	46	46	49.9	50.7	51.4	
94500	Casula	24 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.6	56.3	53.1	
55033	Casula	24 TENNANT STREET CASULA	RES	51	39	42	46	46	49.2	50.3	49	
44290	Casula	24 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	48.3	50.8	53.1	
18879	Casula	24 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.6	52.4	49.2	
78268	Casula	24 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	60.6	57.5	54.1	
10722	Casula	24 WHITE WAY CASULA	RES	51	39	42	46	46	49.6	51	51.7	
96139	Casula	24A CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58.5	55.4	54.1	
40740	Casula	24A TENNANT STREET CASULA	RES	51	39	42	46	46	49.9	42.5	39.6	
80317	Casula	24B CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58.7	60.1	57.4	
44426	Casula	24B ROBERTS ROAD CASULA	RES	51	39	42	46	46	52.2	53.4	53.6	
31697	Casula	24C CANBERRA AVENUE CASULA	RES	51	39	42	46	46	56.7	57.9	43.5	
32046	Casula	25 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.7	57.5	53.9	
73446	Casula	25 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.1	57.4	51.3	
80293	Casula	25 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	63.5	63.3	60.1	
47271	Casula	25 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	56.3	56.9	56	
75413	Casula	25 CASULA ROAD CASULA	RES	51	39	42	46	46	57.3	58.3	55.6	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
90570	Casula	25 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.7	54.2	52.5	
87534	Casula	25 FORTUNE STREET GLENFIELD	RES	51	39	42	46	46	47.5	49.3	50.6	
33626	Casula	25 GIBSON AVENUE CASULA	RES	51	39	42	46	46	54.5	52.3	49	
11487	Casula	25 GILMORE ROAD CASULA	RES	51	39	42	46	46	50.8	51.4	51.9	
40388	Casula	25 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.4	53.8	51.6	
10743	Casula	25 GROVE STREET CASULA	RES	51	39	42	46	46	53.9	53	50.7	
64748	Casula	25 HILTON CRESCENT CASULA	RES	51	39	42	46	46	52.3	54	53.7	
11012	Casula	25 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.2	52.1	51.9	
10122	Casula	25 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.9	52.7	52.8	
83917	Casula	25 MARSH PARADE CASULA	RES	51	39	42	46	46	57.9	56.4	50.9	
62970	Casula	25 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	50.6	51.5	51.7	
61900	Casula	25 MCKELL AVENUE CASULA	RES	51	39	42	46	46	56.1	53.7	48.2	
44696	Casula	25 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.9	56.9	54	
55214	Casula	25 RESERVE ROAD CASULA	RES	51	39	42	46	46	56	56.1	45.3	
42980	Casula	25 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.5	51.2	52.9	
84413	Casula	25 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	56.6	54.8	49.9	
9791	Casula	25 TENNANT STREET CASULA	RES	51	39	42	46	46	49.6	50.7	51	
6618	Casula	25 TOM WAY CASULA	RES	51	39	42	46	46	52.2	53.5	53.7	
41437	Casula	25 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.7	54.3	51.3	
101958	Casula	26 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.3	56.4	49.1	
36982	Casula	26 AUGUSTA STREET CASULA	RES	51	39	42	46	46	60.7	61	58.4	
13229	Casula	26 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58.4	59.1	57.8	
85690	Casula	26 CASULA ROAD CASULA	RES	51	39	42	46	46	55	57.4	57.2	
35258	Casula	26 CATO WAY CASULA	RES	51	39	42	46	46	52.6	54.1	54.6	
88860	Casula	26 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	56.1	55.2	53.3	
91843	Casula	26 GIBSON AVENUE CASULA	RES	51	39	42	46	46	57	56.8	54.9	
20885	Casula	26 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	49.2	51.2	52.4	
85014	Casula	26 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.1	51.4	51.3	
93961	Casula	26 GROVE STREET CASULA	RES	51	39	42	46	46	53.4	52.9	50.8	
66868	Casula	26 KENDALL DRIVE CASULA	RES	51	39	42	46	46	53.5	54.1	39	
79457	Casula	26 KENNELLY WAY CASULA	RES	51	39	42	46	46	51.8	53.3	42.1	
37917	Casula	26 KITSON WAY CASULA	RES	51	39	42	46	46	49.5	51.8	52	
51975	Casula	26 LINDSAY STREET CASULA	RES	51	39	42	46	46	48.3	49.9	50.6	
31457	Casula	26 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.4	51.8	52	
101561	Casula	26 MARSH PARADE CASULA	RES	51	39	42	46	46	61.6	60	57.8	
34668	Casula	26 NILAND WAY CASULA	RES	51	39	42	46	46	51.1	52.3	52.5	
72062	Casula	26 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	59.3	57.4	53.8	
100651	Casula	26 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.7	58.4	55.5	
43414	Casula	26 ROBERTS ROAD CASULA	RES	51	39	42	46	46	54.4	55.4	53.5	
35268	Casula	26 SIDNEY PLACE CASULA	RES	51	39	42	46	46	48.3	49	49.9	
91394	Casula	26 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.3	56.4	53.4	
14370	Casula	26 TENNANT STREET CASULA	RES	51	39	42	46	46	51.6	52.9	53.2	
82138	Casula	26 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	48.6	51.1	52.3	
67752	Casula	26 WARATAH AVENUE CASULA	RES	51	39	42	46	46	53.6	53.1	51	
30462	Casula	27 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.8	49.1	52.9	
91323	Casula	27 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.6	56.8	46.8	
28993	Casula	27 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61	60.9	58.3	
34572	Casula	27 CASULA ROAD CASULA	RES	51	39	42	46	46	57.6	58.3	57.7	
73134	Casula	27 FORTUNE STREET GLENFIELD	RES	51	39	42	46	46	50.2	51.8	52.9	
84049	Casula	27 GIBSON AVENUE CASULA	RES	51	39	42	46	46	56	52.4	50.2	
36973	Casula	27 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	55.3	53.7	51.5	
30596	Casula	27 HILTON CRESCENT CASULA	RES	51	39	42	46	46	53.3	54.1	51.8	
67585	Casula	27 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.5	53.7	52.6	
67811	Casula	27 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.2	52.9	53.6	
78115	Casula	27 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53.2	54.5	54.7	
93668	Casula	27 MARSH PARADE CASULA	RES	51	39	42	46	46	57.3	57.7	56.6	
75154	Casula	27 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.5	56.9	54.1	
7316	Casula	27 ROBERTS ROAD CASULA	RES	51	39	42	46	46	51.7	52.7	53.5	
38321	Casula	27 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.6	51.3	52.3	
43776	Casula	27 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.6	59.1	53.8	
65672	Casula	27 TENNANT STREET CASULA	RES	51	39	42	46	46	49.9	50.8	50.7	
93222	Casula	27 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.4	53.7	51.4	
84539	Casula	27-29 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.2	55.8	51.1	
57023	Casula	28 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	59.5	57.2	55.3	
49857	Casula	28 AUGUSTA STREET CASULA	RES	51	39	42	46	46	61.8	60.2	56.8	
98713	Casula	28 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58.4	59.1	58.2	
46898	Casula	28 CASULA ROAD CASULA	RES	51	39	42	46	46	54.9	58.7	57.3	
14523	Casula	28 CATO WAY CASULA	RES	51	39	42	46	46	50.1	51.5	51.6	
106023	Casula	28 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	55.9	56.2	53.2	
52976	Casula	28 GIBSON AVENUE CASULA	RES	51	39	42	46	46	57.2	56.7	53.6	
66099	Casula	28 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	50.8	52.7	52.7	
89010	Casula	28 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.7	56.3	53.2	
88901	Casula	28 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.4	52.4	52.3	
43698	Casula	28 KENNELLY WAY CASULA	RES	51	39	42	46	46	55.9	56.5	55.9	
103562	Casula	28 KITSON WAY CASULA	RES	51	39	42	46	46	50.6	51.2	51	
21767	Casula	28 LINDSAY STREET CASULA	RES	51	39	42	46	46	48.6	49.8	50.7	
9803	Casula	28 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.2	47.5	46.8	
92651	Casula	28 MARSH PARADE CASULA	RES	51	39	42	46	46	62.2	62.4	59.2	
8500	Casula	28 NILAND WAY CASULA	RES	51	39	42	46	46	53.7	54.9	55.1	
82359	Casula	28 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	57.6	56.8	52.9	
96620	Casula	28 RESERVE ROAD CASULA	RES	51	39	42	46	46	54.8	53.4	43.2	
14324	Casula	28 ROBERTS ROAD CASULA	RES	51	39	42	46	46	52	53	54.1	
50379	Casula	28 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.4	56.5	53.5	
95938	Casula	28 TENNANT STREET CASULA	RES	51	39	42	46	46	51.6	52.8	53	
78317	Casula	28 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	49.2	51	52.1	
36404	Casula	28 WARATAH AVENUE CASULA	RES	51	39	42	46	46	56.1	55.8	53.1	
18185	Casula	28A CANBERRA AVENUE CASULA	RES	51	39	42	46	46	60	59.1	55.3	
30727	Casula	28B CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58.8	59.5	58	
19490	Casula	28C CANBERRA AVENUE CASULA	RES	51	39	42	46	46	59.7	59.1	58.4	
90005	Casula	29 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.5	57.4	54.3	
68831	Casula	29 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	56.9	56.1	46.5	
47639	Casula	29 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	63.1	63	58.1	
10762	Casula	29 CASULA ROAD CASULA	RES	51	39	42	46	46	57.7	58.3	57.6	
57671	Casula	29 HILTON CRESCENT CASULA	RES	51	39	42	46	46	51.2	51.8	51.6	
15565	Casula	29 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.1	52.1	52.8	
31914	Casula	29 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.5	54.4	54.5	
75112	Casula	29 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51	52.4	52.2	
50930	Casula	29 MARSH PARADE CASULA	RES	51	39	42	46	46	57.6	57	53.9	
78738	Casula	29 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	60.9	57.1	53.3	

ID	NCA	Address	Land use	Laeq, 15 minute noise level										
				Noise management level						Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3				
					1	2	3							
			Key		Exceeds Standard NML			exceeds OOHW 3 NML						
62263	Casula	29 ROBERTS ROAD CASULA	RES	51	39	42	46	46	46	51.7	53	53.2		
22509	Casula	29 SLESSOR ROAD CASULA	RES	51	39	42	46	46	46	52.1	53.8	54.1		
57455	Casula	29 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	46	59.5	52.3	46		
62004	Casula	29 TENNANT STREET CASULA	RES	51	39	42	46	46	46	51.8	53	53.4		
43862	Casula	29 WARATAH AVENUE CASULA	RES	51	39	42	46	46	46	54.5	54.5	51.4		
92082	Casula	29-33 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	46	55.3	53.4	50.2		
80818	Casula	2A BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	46	58.4	56.9	50		
94455	Casula	2A CANBERRA AVENUE CASULA	RES	51	39	42	46	46	46	57.8	58.5	54.5		
24442	Casula	2A HANS PLACE CASULA	RES	51	39	42	46	46	46	53	52.4	53.8		
48813	Casula	2A HARDY PLACE CASULA	RES	51	39	42	46	46	46	49.1	51.2	52		
79788	Casula	2A SIDNEY PLACE CASULA	RES	51	39	42	46	46	46	50.1	50.7	51.3		
38973	Casula	2B CANBERRA AVENUE CASULA	RES	51	39	42	46	46	46	58.3	57	42.8		
37675	Casula	2B HANS PLACE CASULA	RES	51	39	42	46	46	46	54.4	54.7	54.5		
89592	Casula	2B HARDY PLACE CASULA	RES	51	39	42	46	46	46	49.1	50.8	51.5		
34947	Casula	2B SIDNEY PLACE CASULA	RES	51	39	42	46	46	46	48.6	49.9	50.4		
27310	Casula	2B TOM WAY CASULA	RES	51	39	42	46	46	46	52.9	53.6	55.2		
76575	Casula	3 ASTLEY WAY CASULA	RES	51	39	42	46	46	46	53	53.8	54.1		
78872	Casula	3 AUGUSTA STREET CASULA	RES	51	39	42	46	46	46	59.9	58.5	57.5		
99254	Casula	3 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	46	58.2	56.1	42.3		
34014	Casula	3 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	46	49.8	52.1	52.9		
62710	Casula	3 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	46	61.5	52.2	48.2		
33886	Casula	3 CATO WAY CASULA	RES	51	39	42	46	46	46	47.6	50.2	51.4		
70881	Casula	3 COLONIAL PLACE CASULA	RES	51	39	42	46	46	46	60.6	58.6	54.1		
66338	Casula	3 CUSACK AVENUE CASULA	RES	51	39	42	46	46	46	49.9	50.4	44.9		
53071	Casula	3 DRYSDALE PLACE CASULA	RES	51	39	42	46	46	46	48.5	49.6	50.3		
5894	Casula	3 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	46	59.7	59.8	55.1		
25868	Casula	3 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	46	57.1	56.7	54.5		
30559	Casula	3 DURACK PLACE CASULA	RES	51	39	42	46	46	46	51.8	51.7	52.2		
86087	Casula	3 GIBB AVENUE CASULA	RES	51	39	42	46	46	46	55.8	55.1	53		
56040	Casula	3 GIBSON AVENUE CASULA	RES	51	39	42	46	46	46	54.8	54.9	52.6		
31820	Casula	3 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	46	47.7	49.5	51		
65399	Casula	3 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	46	56.3	54.9	52.4		
39349	Casula	3 GROVE STREET CASULA	RES	51	39	42	46	46	46	55.5	54.1	51.4		
48281	Casula	3 HANS PLACE CASULA	RES	51	39	42	46	46	46	53.4	54.7	53.9		
35861	Casula	3 HARDY PLACE CASULA	RES	51	39	42	46	46	46	49.4	50.8	51.3		
25329	Casula	3 HARPUR PLACE CASULA	RES	51	39	42	46	46	46	48.4	51.5	52.6		
49937	Casula	3 HILTON CRESCENT CASULA	RES	51	39	42	46	46	46	53.7	54.7	53.8		
41648	Casula	3 HITTER AVENUE CASULA	RES	51	39	42	46	46	46	54.9	54.2	53.9		
90543	Casula	3 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	46	56.1	56.4	53.1		
59645	Casula	3 HOLSTON STREET CASULA	RES	51	39	42	46	46	46	58.1	58	53.1		
87075	Casula	3 KELLER PLACE CASULA	RES	51	39	42	46	46	46	57.6	57.7	52.1		
43942	Casula	3 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	46	62.1	58.5	52.6		
55784	Casula	3 MACKELLAR STREET CASULA	RES	51	39	42	46	46	46	50.3	52.3	44.1		
74731	Casula	3 MCKELL AVENUE CASULA	RES	51	39	42	46	46	46	55.6	47.6	43.5		
11089	Casula	3 MELBA PLACE CASULA	RES	51	39	42	46	46	46	51.6	52.5	52.8		
87266	Casula	3 MORLEY PLACE GLENFIELD	RES	51	39	42	46	46	46	49.2	51.3	51.6		
33793	Casula	3 OLD KURRAJONG ROAD CASULA	RES	51	39	42	46	46	46	56.4	56.3	47.7		
36111	Casula	3 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	46	59.4	58.6	56.4		
88009	Casula	3 RUDD CLOSE CASULA	RES	51	39	42	46	46	46	52.6	54.1	55.1		
14288	Casula	3 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	46	59.3	48.4	41.4		
99629	Casula	3 SIDNEY PLACE CASULA	RES	51	39	42	46	46	46	49.2	49.7	50.1		
40833	Casula	3 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	46	57.2	54	50.2		
52598	Casula	3 STEAD PLACE CASULA	RES	51	39	42	46	46	46	51.3	51.8	53.4		
47428	Casula	3 TENNANT STREET CASULA	RES	51	39	42	46	46	46	51.9	52.5	43.1		
96316	Casula	3 TOM WAY CASULA	RES	51	39	42	46	46	46	53	54.3	56.5		
39586	Casula	3 TUSCAN PLACE CASULA	RES	51	39	42	46	46	46	60.6	57.9	55.5		
30174	Casula	3 WARATAH AVENUE CASULA	RES	51	39	42	46	46	46	54.3	54.4	52.4		
71149	Casula	3 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	46	60.6	58.5	54.4		
86528	Casula	30 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	46	55.9	54.5	49.7		
81967	Casula	30 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	46	59.4	59.3	58.8		
6417	Casula	30 CASULA ROAD CASULA	RES	51	39	42	46	46	46	55.4	56.3	56.3		
77380	Casula	30 CATO WAY CASULA	RES	51	39	42	46	46	46	49.1	39.7	39.8		
87055	Casula	30 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	46	54	52.7	51.4		
65718	Casula	30 GIBSON AVENUE CASULA	RES	51	39	42	46	46	46	56.9	56.6	52.4		
35474	Casula	30 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	46	47.7	49.8	50.6		
89902	Casula	30 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	46	56.1	55.7	51.2		
21649	Casula	30 KENDALL DRIVE CASULA	RES	51	39	42	46	46	46	51.3	52.1	52.1		
66906	Casula	30 KITSON WAY CASULA	RES	51	39	42	46	46	46	48.3	49.3	50		
72455	Casula	30 LINDSAY STREET CASULA	RES	51	39	42	46	46	46	49.2	51.8	52.8		
40156	Casula	30 MACKELLAR STREET CASULA	RES	51	39	42	46	46	46	51.2	51.9	49.1		
45918	Casula	30 MARSH PARADE CASULA	RES	51	39	42	46	46	46	59.6	59.8	57.7		
92882	Casula	30 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	46	57.7	55.2	51.7		
61911	Casula	30 RESERVE ROAD CASULA	RES	51	39	42	46	46	46	54.6	45.9	43.5		
74003	Casula	30 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	46	59.7	56.6	53.9		
59890	Casula	30 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	46	49.1	51	52.2		
43108	Casula	30 WARATAH AVENUE CASULA	RES	51	39	42	46	46	46	53.8	55.5	53.1		
95912	Casula	30A KENEALLY WAY CASULA	RES	51	39	42	46	46	46	51.6	43	52.2		
34010	Casula	30A NILAND WAY CASULA	RES	51	39	42	46	46	46	51.3	52.4	52.6		
59078	Casula	30B KENEALLY WAY CASULA	RES	51	39	42	46	46	46	52.7	53.4	52.4		
25205	Casula	31 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	46	57.5	56.6	52.9		
91258	Casula	31 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	46	56.3	56.6	46.2		
62041	Casula	31 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	46	62.9	60.7	58.2		
25494	Casula	31 CASULA ROAD CASULA	RES	51	39	42	46	46	46	55.1	56.2	56		
27083	Casula	31 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	46	56.5	55.8	52.7		
82868	Casula	31 HILTON CRESCENT CASULA	RES	51	39	42	46	46	46	49.7	50.2	50.6		
35502	Casula	31 KENDALL DRIVE CASULA	RES	51	39	42	46	46	46	53.2	54	53.4		
49333	Casula	31 LEACOCKS LANE CASULA	RES	51	39	42	46	46	46	53.5	54.5	54.6		
8651	Casula	31 MACKELLAR STREET CASULA	RES	51	39	42	46	46	46	51	52	52.2		
72378	Casula	31 MARSH PARADE CASULA	RES	51	39	42	46	46	46	57.9	51	50.8		
46739	Casula	31 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	46	58.7	57	53.2		
98611	Casula	31 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	46	60.8	59.6	56.3		
29760	Casula	31 TENNANT STREET CASULA	RES	51	39	42	46	46	46	49.4	50.3	50.3		
83318	Casula	31 WARATAH AVENUE CASULA	RES	51	39	42	46	46	46	54.6	53.9	51.6		
65875	Casula	31B ROBERTS ROAD CASULA	RES	51	39	42	46	46	46	51.7	52.8	52.7		
98229	Casula	32 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	46	59.8	58.5	50.1		
101506	Casula	32 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	46	57.2	56.7	50.1		

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
56590	Casula	32 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	47.8	50.2	49.5	
36241	Casula	32 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.6	54.4	51.5	
92585	Casula	32 GROVE STREET CASULA	RES	51	39	42	46	46	55.4	54.7	52.6	
5863	Casula	32 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.7	56.7	55.3	
12980	Casula	32 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.7	53.4	52	
71390	Casula	32 KITSON WAY CASULA	RES	51	39	42	46	46	48.2	49.3	50.3	
40435	Casula	32 LINDSAY STREET CASULA	RES	51	39	42	46	46	49.4	50.1	50.4	
44116	Casula	32 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.4	51.8	52.5	
53439	Casula	32 MARSH PARADE CASULA	RES	51	39	42	46	46	59.5	59.7	57.7	
93071	Casula	32 NILAND WAY CASULA	RES	51	39	42	46	46	51.4	52.4	53.5	
13726	Casula	32 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	56.8	56.3	53.9	
94780	Casula	32 RESERVE ROAD CASULA	RES	51	39	42	46	46	54.5	53.9	49.9	
79755	Casula	32 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.1	57.4	53.6	
52763	Casula	32 TENNANT STREET CASULA	RES	51	39	42	46	46	49.2	50.3	50.6	
21728	Casula	32 TOTTENHAM PLACE GLENFIELD	RES	51	39	42	46	46	51.5	53.3	52.5	
97859	Casula	32 WARATAH AVENUE CASULA	RES	51	39	42	46	46	55.4	54.2	52.5	
65027	Casula	32A GIBSON AVENUE CASULA	RES	51	39	42	46	46	57.6	55.4	52.8	
17644	Casula	32B ROBERTS ROAD CASULA	RES	51	39	42	46	46	51.9	53.3	53.5	
52217	Casula	33 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.6	56.5	54.5	
38481	Casula	33 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	62.9	60.6	58.2	
81936	Casula	33 CASULA ROAD CASULA	RES	51	39	42	46	46	56.3	56.9	55.9	
67883	Casula	33 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.4	55.3	54.6	
40718	Casula	33 HILTON CRESCENT CASULA	RES	51	39	42	46	46	52.9	51.1	50.3	
61886	Casula	33 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.8	52.5	51.9	
79812	Casula	33 MARSH PARADE CASULA	RES	51	39	42	46	46	56.2	56.5	53	
39372	Casula	33 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.1	57.4	54.2	
49077	Casula	33 SLESSOR ROAD CASULA	RES	51	39	42	46	46	50.9	50.5	51.2	
55276	Casula	33 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.7	56	51.5	
42796	Casula	33 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.7	54	51.7	
72387	Casula	33A ROBERTS ROAD CASULA	RES	51	39	42	46	46	54	54.5	39.2	
65942	Casula	33B LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.5	54.5	54.4	
95129	Casula	33B ROBERTS ROAD CASULA	RES	51	39	42	46	46	51.4	52.4	52.8	
79956	Casula	34 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.7	57.6	57	
12745	Casula	34 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58.8	51.8	49.6	
95969	Casula	34 CASULA ROAD CASULA	RES	51	39	42	46	46	56.1	55.8	54.9	
22351	Casula	34 CATO WAY CASULA	RES	51	39	42	46	46	52.6	54.2	54.4	
40988	Casula	34 GIBSON AVENUE CASULA	RES	51	39	42	46	46	56.1	55.1	54.1	
88187	Casula	34 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	49.8	48.9	50.9	
44069	Casula	34 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.1	55.6	53.5	
57696	Casula	34 GROVE STREET CASULA	RES	51	39	42	46	46	55.5	54.8	52.8	
106484	Casula	34 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.4	57.1	55.7	
74023	Casula	34 KITSON WAY CASULA	RES	51	39	42	46	46	49.4	49.3	49.5	
13242	Casula	34 LINDSAY STREET CASULA	RES	51	39	42	46	46	48.1	49.9	50.5	
14364	Casula	34 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.4	51.8	52.2	
64193	Casula	34 MARSH PARADE CASULA	RES	51	39	42	46	46	61.3	60	57.7	
54657	Casula	34 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	57.2	55.8	53	
76546	Casula	34 RESERVE ROAD CASULA	RES	51	39	42	46	46	56.5	56.7	55.1	
93370	Casula	34 ROBERTS ROAD CASULA	RES	51	39	42	46	46	51.8	53.1	53.4	
15292	Casula	34 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.7	57.2	53.7	
40225	Casula	34 TENNANT STREET CASULA	RES	51	39	42	46	46	49.8	50.8	51	
86917	Casula	34 WARATAH AVENUE CASULA	RES	51	39	42	46	46	56.8	55.1	51.4	
48183	Casula	34A CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58	57.5	59.1	
88391	Casula	35 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.5	56.5	54.6	
54986	Casula	35 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	63	63.1	58.3	
83812	Casula	35 CASULA ROAD CASULA	RES	51	39	42	46	46	56.9	57.7	56.7	
85748	Casula	35 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.8	56.1	54.5	
102662	Casula	35 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	54.7	51.4	53.6	
44813	Casula	35 KENDALL DRIVE CASULA	RES	51	39	42	46	46	53	53.3	50.9	
64450	Casula	35 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.5	41.7	51.9	
37277	Casula	35 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53.2	54.3	46	
16000	Casula	35 MARSH PARADE CASULA	RES	51	39	42	46	46	57.4	54.7	51.8	
100526	Casula	35 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.5	57.2	52.1	
62025	Casula	35 ROBERTS ROAD CASULA	RES	51	39	42	46	46	50.9	52.5	52.5	
25109	Casula	35 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.6	51.3	51.6	
79915	Casula	35 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59	57.5	54.3	
69361	Casula	35 WARATAH AVENUE CASULA	RES	51	39	42	46	46	55.3	54.1	52.1	
101994	Casula	36 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	60	58.9	55.1	
66454	Casula	36 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58.1	59	57.5	
47042	Casula	36 CASULA ROAD CASULA	RES	51	39	42	46	46	55	56.1	55.8	
47175	Casula	36 CATO WAY CASULA	RES	51	39	42	46	46	52.5	53.7	55	
102106	Casula	36 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	55.9	54.5	50.3	
82274	Casula	36 GROVE STREET CASULA	RES	51	39	42	46	46	55.2	54.7	52.5	
51839	Casula	36 KENDALL DRIVE CASULA	RES	51	39	42	46	46	53.8	53.2	51.3	
39504	Casula	36 KITSON WAY CASULA	RES	51	39	42	46	46	49.2	49.1	50	
71516	Casula	36 LINDSAY STREET CASULA	RES	51	39	42	46	46	50.3	50.5	51.4	
60712	Casula	36 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.4	51.8	52.2	
46409	Casula	36 MARSH PARADE CASULA	RES	51	39	42	46	46	60.2	60.7	58.6	
4965	Casula	36 NILAND WAY CASULA	RES	51	39	42	46	46	51.5	52.2	52.5	
68097	Casula	36 RESERVE ROAD CASULA	RES	51	39	42	46	46	54.4	53.9	52.6	
36351	Casula	36 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.7	57	54.2	
32257	Casula	36 TENNANT STREET CASULA	RES	51	39	42	46	46	49.9	52.2	52.5	
30484	Casula	36 TOM WAY CASULA	RES	51	39	42	46	46	52.1	53.8	54	
100911	Casula	36 WARATAH AVENUE CASULA	RES	51	39	42	46	46	56.7	54.1	50.1	
96613	Casula	37 CASULA ROAD CASULA	RES	51	39	42	46	46	55.5	56.6	54.9	
102653	Casula	37 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	54.5	54.8	54.3	
85422	Casula	37 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	55.6	53.1	51.4	
92733	Casula	37 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56	56.4	53.2	
60628	Casula	37 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.1	51.8	51.7	
59527	Casula	37 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.7	52	52.7	
35232	Casula	37 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.3	55.3	52.5	
13641	Casula	37 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.6	51.2	52.2	
15084	Casula	37 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.4	48.6	45.1	
21812	Casula	37B ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.5	58.9	55.8	
22930	Casula	38 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.6	57.2	53	
26879	Casula	38 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	60.5	61.2	60.5	
27326	Casula	38 CASULA ROAD CASULA	RES	51	39	42	46	46	56.9	57.3	56.5	
33783	Casula	38 GIBSON AVENUE CASULA	RES	51	39	42	46	46	55.1	53.9	51.6	
52675	Casula	38 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	48.2	49.9	50.8	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
77814	Casula	38 GROVE STREET CASULA	RES	51	39	42	46	46	53.9	54	52.5	
31107	Casula	38 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51	51.9	51.8	
17072	Casula	38 LINDSAY STREET CASULA	RES	51	39	42	46	46	48.1	49.9	52.3	
51616	Casula	38 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.4	52.4	50.9	
98433	Casula	38 MARSH PARADE CASULA	RES	51	39	42	46	46	61.6	62.1	60.2	
102674	Casula	38 RESERVE ROAD CASULA	RES	51	39	42	46	46	56.3	56.7	54.6	
81620	Casula	38 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.4	57.2	54.6	
79396	Casula	38 WARATAH AVENUE CASULA	RES	51	39	42	46	46	52	51.4	49	
30937	Casula	38A HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55	55.2	53.7	
98308	Casula	38A RESERVE ROAD CASULA	RES	51	39	42	46	46	56.3	55.4	54.4	
68327	Casula	38A TENNANT STREET CASULA	RES	51	39	42	46	46	45.9	51.5	51.8	
67904	Casula	38B HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	54.4	54.8	52.4	
79527	Casula	38B TENNANT STREET CASULA	RES	51	39	42	46	46	49.9	52.1	50.8	
94269	Casula	39 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.2	56.4	54.9	
21297	Casula	39 CASULA ROAD CASULA	RES	51	39	42	46	46	56.9	57.5	56.8	
71760	Casula	39 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	54.5	55	53.5	
32965	Casula	39 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.5	53	53.1	
69527	Casula	39 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.5	53.7	53.9	
34347	Casula	39 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.8	52	52.3	
8790	Casula	39 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.7	57.3	53.4	
44918	Casula	39 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.5	50.8	50.7	
50100	Casula	39 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.6	60.1	56.9	
74601	Casula	39-47 KITSON WAY CASULA	RES	51	39	42	46	46	49.5	49.5	49.9	
58100	Casula	39A GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56	55.3	52.8	
102889	Casula	39B GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54	52.9	51.1	
60000	Casula	3A ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.6	56.2	54.1	
55116	Casula	3A CASULA ROAD CASULA	RES	51	39	42	46	46	59.2	58.9	58.4	
76977	Casula	3A GILMORE ROAD CASULA	RES	51	39	42	46	46	51.5	52	52.6	
56156	Casula	3A HEYSEN PLACE CASULA	RES	51	39	42	46	46	53.3	54.9	52.8	
68804	Casula	3A KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.9	41.7	40.5	
50348	Casula	3A KENEALLY WAY CASULA	RES	51	39	42	46	46	50.8	50.4	48.9	
43733	Casula	3A MARSH PARADE CASULA	RES	51	39	42	46	46	57.8	57.6	55.7	
73999	Casula	3A MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	49.2	50.1	49.2	
97470	Casula	3A SHUTE WAY CASULA	RES	51	39	42	46	46	50.8	51.7	52.4	
55062	Casula	3B ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.6	54.1	50.8	
10319	Casula	3B GILMORE ROAD CASULA	RES	51	39	42	46	46	48.9	50.5	51.2	
54423	Casula	3B KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.9	52.8	51.6	
22393	Casula	3B KENEALLY WAY CASULA	RES	51	39	42	46	46	52.7	53.3	51.9	
15122	Casula	3B MARSH PARADE CASULA	RES	51	39	42	46	46	60.2	60.2	57.3	
16837	Casula	3B MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	48.1	48.4	43.9	
94880	Casula	3B SHUTE WAY CASULA	RES	51	39	42	46	46	48.9	50.2	50.6	
11199	Casula	3B SLESSOR ROAD CASULA	RES	51	39	42	46	46	48.6	51.5	52.8	
25342	Casula	4 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	54.6	55.4	52.5	
59734	Casula	4 ATLANTA PLACE CASULA	RES	51	39	42	46	46	56.4	48.7	48.5	
78888	Casula	4 AUGUSTA STREET CASULA	RES	51	39	42	46	46	58.6	57.7	55	
90521	Casula	4 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	50.3	52.7	54.1	
96396	Casula	4 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	60.6	59.1	56.7	
61011	Casula	4 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	57.9	57.3	55.9	
82088	Casula	4 CASULA ROAD CASULA	RES	51	39	42	46	46	58.8	57.8	57.5	
90599	Casula	4 COLONIAL PLACE CASULA	RES	51	39	42	46	46	61.3	57.5	45.7	
53666	Casula	4 CUSACK AVENUE CASULA	RES	51	39	42	46	46	51.4	52.9	53.2	
102678	Casula	4 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	58.4	55.8	44.1	
37088	Casula	4 DRYSDALE PLACE CASULA	RES	51	39	42	46	46	48.7	49.8	50.1	
64819	Casula	4 DUNROSSI AVENUE CASULA	RES	51	39	42	46	46	57.2	55.8	52.5	
9619	Casula	4 GIBB AVENUE CASULA	RES	51	39	42	46	46	53.5	48.5	45	
31556	Casula	4 GIBSON AVENUE CASULA	RES	51	39	42	46	46	56.6	55.1	52.7	
100981	Casula	4 GROVE STREET CASULA	RES	51	39	42	46	46	56.8	55.2	52.7	
50717	Casula	4 HANS PLACE CASULA	RES	51	39	42	46	46	52.3	53.6	56.1	
71800	Casula	4 HARDY PLACE CASULA	RES	51	39	42	46	46	49.6	51	51.7	
18744	Casula	4 HARPUR PLACE CASULA	RES	51	39	42	46	46	48.9	51.2	50.4	
35897	Casula	4 HEYSEN PLACE CASULA	RES	51	39	42	46	46	53.9	55.4	54.6	
90550	Casula	4 HILTON CRESCENT CASULA	RES	51	39	42	46	46	52.1	52.9	52.8	
23227	Casula	4 HITTER AVENUE CASULA	RES	51	39	42	46	46	55.9	54.6	52.3	
52084	Casula	4 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.7	52.7	43.5	
40147	Casula	4 HOLSTON STREET CASULA	RES	51	39	42	46	46	58.2	57.5	55.4	
101243	Casula	4 KELLER PLACE CASULA	RES	51	39	42	46	46	59.9	57.8	54.1	
83392	Casula	4 KENDALL DRIVE CASULA	RES	51	39	42	46	46	54.6	53.7	51.8	
33052	Casula	4 KITSON WAY CASULA	RES	51	39	42	46	46	47.9	49.3	51.9	
52511	Casula	4 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	61.1	59.3	55.8	
59193	Casula	4 LANG ROAD CASULA	RES	51	39	42	46	46	58.3	58.6	44.5	
60636	Casula	4 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.1	52.8	53.6	
51730	Casula	4 MARSH PARADE CASULA	RES	51	39	42	46	46	57.4	54.3	50.7	
40236	Casula	4 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	50.3	51.7	49.8	
107244	Casula	4 MCKELL AVENUE CASULA	RES	51	39	42	46	46	57.1	56.6	54.4	
33121	Casula	4 MELBA PLACE CASULA	RES	51	39	42	46	46	51.4	52.5	49.4	
24390	Casula	4 NILAND WAY CASULA	RES	51	39	42	46	46	50.9	52.3	52.7	
96878	Casula	4 PATRICK STREET CASULA	RES	51	39	42	46	46	51.3	52.3	51.4	
71918	Casula	4 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	60.2	56.6	52.9	
62276	Casula	4 RESERVE ROAD CASULA	RES	51	39	42	46	46	52.9	50.6	44.2	
32480	Casula	4 RUDD CLOSE CASULA	RES	51	39	42	46	46	49.7	51.4	51.9	
78895	Casula	4 RUSHTON PLACE CASULA	RES	51	39	42	46	46	58.8	59.5	58.8	
39633	Casula	4 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	59.2	49	45.3	
90580	Casula	4 SHUTE WAY CASULA	RES	51	39	42	46	46	50.1	50.5	44.4	
18703	Casula	4 SIDNEY PLACE CASULA	RES	51	39	42	46	46	51.7	52.7	52.5	
33164	Casula	4 SLESSOR ROAD CASULA	RES	51	39	42	46	46	50	51.5	52	
84156	Casula	4 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.2	56.4	52.4	
71357	Casula	4 STEAD PLACE CASULA	RES	51	39	42	46	46	51.5	52.7	51.8	
66760	Casula	4 TOM WAY CASULA	RES	51	39	42	46	46	53.7	54.9	56	
32542	Casula	4 TUSCAN PLACE CASULA	RES	51	39	42	46	46	60.9	57.8	56.9	
78758	Casula	4 WARATAH AVENUE CASULA	RES	51	39	42	46	46	52.9	50.1	47.3	
36356	Casula	4 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	59.3	57.9	53.5	
35187	Casula	4 WHITE WAY CASULA	RES	51	39	42	46	46	49.5	51	51.5	
36914	Casula	40 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.4	47.7	44.7	
68604	Casula	40 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	59.9	60.7	58	
53236	Casula	40 CASULA ROAD CASULA	RES	51	39	42	46	46	54.8	56.4	56.2	
69288	Casula	40 GIBSON AVENUE CASULA	RES	51	39	42	46	46	55.9	56	54.1	
77679	Casula	40 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	48.8	50.5	51.1	
24009	Casula	40 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	53.4	52.4	51.2	
84722	Casula	40 GROVE STREET CASULA	RES	51	39	42	46	46	54.3	52.1	50.1	

ID	NCA	Address	Land use	Laeq, 15 minute noise level										
				Noise management level						Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3				
					1	2	3							
			Key		Exceeds Standard NML			exceeds OOHW 3 NML						
35194	Casula	40 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.1	56.2	55.2			
29017	Casula	40 KENDALL DRIVE CASULA	RES	51	39	42	46	46	53	53.8	45.3			
91374	Casula	40 LINDSAY STREET CASULA	RES	51	39	42	46	46	50.2	51.8	52.7			
44517	Casula	40 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.5	51.8	52.1			
55648	Casula	40 MARSH PARADE CASULA	RES	51	39	42	46	46	59.2	59.5	57.7			
32790	Casula	40 RESERVE ROAD CASULA	RES	51	39	42	46	46	56.6	56.5	55.2			
9102	Casula	40 TENNANT STREET CASULA	RES	51	39	42	46	46	51.8	53.1	53.2			
75292	Casula	40 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.5	52.6	50.8			
82890	Casula	41 CASULA ROAD CASULA	RES	51	39	42	46	46	54.2	54.9	54.7			
100661	Casula	41 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	55.2	53.2	51.1			
104893	Casula	41 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.9	56.1	54.8			
36372	Casula	41 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.5	51.4	51.6			
22866	Casula	41 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.8	54.8	55			
67749	Casula	41 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53	54.4	54.6			
60954	Casula	41 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.3	52.6	47.6			
92767	Casula	41 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.6	50.3	49.9			
27688	Casula	41 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.7	57.4	51.4			
22954	Casula	42 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	59.4	60.9	59.7			
78652	Casula	42 CASULA ROAD CASULA	RES	51	39	42	46	46	55.3	53.6	53.2			
87577	Casula	42 GIBSON AVENUE CASULA	RES	51	39	42	46	46	56.3	55.9	54.1			
14160	Casula	42 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.9	54	48.4			
97480	Casula	42 GROVE STREET CASULA	RES	51	39	42	46	46	53.8	53.4	50.1			
99674	Casula	42 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.7	57	53.3			
8634	Casula	42 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.8	51.5	43.9			
90066	Casula	42 LINDSAY STREET CASULA	RES	51	39	42	46	46	50.3	50.5	50.2			
62009	Casula	42 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.9	54.3	54.6			
11172	Casula	42 MARSH PARADE CASULA	RES	51	39	42	46	46	59.2	59.5	58.5			
99390	Casula	42 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	63.4	59.6	55.8			
97765	Casula	42 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.3	51.2	51.6			
3018	Casula	42B ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	54.5	55.6	54.4			
103607	Casula	42B RESERVE ROAD CASULA	RES	51	39	42	46	46	56.2	56	55.1			
95441	Casula	43 CASULA ROAD CASULA	RES	51	39	42	46	46	56.6	57.3	56.5			
6588	Casula	43 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.7	50.6	50.5			
49817	Casula	43 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.9	52	51.3			
83632	Casula	43 LEACOCKS LANE CASULA	RES	51	39	42	46	46	47.8	50.6	50			
47657	Casula	43 NILAND WAY CASULA	RES	51	39	42	46	46	52.1	52.9	52.7			
82279	Casula	43 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.9	52.9	46.7			
71664	Casula	43 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.7	51	54.1			
86818	Casula	43 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.2	57.8	54.6			
19521	Casula	431 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.9	54.1	51.7			
13676	Casula	43A MACKELLAR STREET CASULA	RES	51	39	42	46	46	53.3	54.4	54.4			
76673	Casula	43B MACKELLAR STREET CASULA	RES	51	39	42	46	46	51	52.9	53.7			
34192	Casula	44 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57	57.3	55.6			
53896	Casula	44 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	59.1	59.4	59.2			
28959	Casula	44 CASULA ROAD CASULA	RES	51	39	42	46	46	56.7	58.2	57.9			
102133	Casula	44 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.6	54.8	50.8			
100373	Casula	44 GROVE STREET CASULA	RES	51	39	42	46	46	55.3	54.4	52.4			
103472	Casula	44 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.7	52.7	46.7			
22564	Casula	44 LINDSAY STREET CASULA	RES	51	39	42	46	46	47.9	49	49.2			
41772	Casula	44 MARSH PARADE CASULA	RES	51	39	42	46	46	61.5	61.7	60.1			
74836	Casula	44 RESERVE ROAD CASULA	RES	51	39	42	46	46	54.6	50.8	43.5			
96267	Casula	44 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	63.6	60.6	57.4			
77944	Casula	44 WARATAH AVENUE CASULA	RES	51	39	42	46	46	56.6	56	52.2			
55221	Casula	445 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.8	57.2	54.6			
92858	Casula	447 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.9	54.6	52.4			
97001	Casula	44A HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.8	55.9	49.4			
38569	Casula	45 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.3	51.2	51.4			
22315	Casula	45 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.6	54.8	57			
66023	Casula	45 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.8	52	52.2			
33566	Casula	45 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.9	58.1	55.3			
48662	Casula	45 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.3	52.4	52.8			
44542	Casula	45 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.7	58	50.3			
47161	Casula	45A NILAND WAY CASULA	RES	51	39	42	46	46	54	54.9	55			
36565	Casula	46 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	60.2	59.8	56.2			
74225	Casula	4-6 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.9	58.4	55.3			
88369	Casula	46 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	59.3	58.8	58.3			
90222	Casula	46 CASULA ROAD CASULA	RES	51	39	42	46	46	54.2	55.5	55.2			
94680	Casula	46 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	55.5	52	50.6			
28246	Casula	46 GROVE STREET CASULA	RES	51	39	42	46	46	54.4	54.2	52.1			
16676	Casula	46 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.4	56.8	54			
20642	Casula	46 LINDSAY STREET CASULA	RES	51	39	42	46	46	47.9	49.4	49.9			
93403	Casula	46 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53	54.1	54.2			
42989	Casula	46 MARSH PARADE CASULA	RES	51	39	42	46	46	59.4	59.5	57.6			
101789	Casula	46 RESERVE ROAD CASULA	RES	51	39	42	46	46	56.5	57.7	55.2			
80489	Casula	46 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	63.7	62	58.5			
54821	Casula	461 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.1	56.5	54.2			
2259	Casula	467 HUME HIGHWAY CASULA	RES	51	39	42	46	46	59.5	57.6	55.4			
102043	Casula	47 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.2	56.6	55.2			
99067	Casula	47 GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	48.4	49.4	50.7			
16803	Casula	47 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	53.1	52.6	51.1			
103571	Casula	47 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.7	54.2	54.8			
43095	Casula	47 LEACOCKS LANE CASULA	RES	51	39	42	46	46	56	57.4	57.5			
66822	Casula	47 NILAND WAY CASULA	RES	51	39	42	46	46	51.8	52.8	51			
25580	Casula	47 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	49.2	56.9	54.2			
82764	Casula	47 SLESSOR ROAD CASULA	RES	51	39	42	46	46	58.2	50.8	53.8			
84593	Casula	47 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.7	59.5	56.1			
99136	Casula	47A GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	49.6	50.3	51.1			
92985	Casula	48 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.1	57.5	56.1			
21930	Casula	48 CASULA ROAD CASULA	RES	51	39	42	46	46	54.5	55.1	50.5			
73573	Casula	48 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.1	55.7	52.2			
75359	Casula	48 GROVE STREET CASULA	RES	51	39	42	46	46	53.8	50.8	43.2			
77706	Casula	48 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.9	54.2	52.9			
41850	Casula	48 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.5	51.5	52.1			
82848	Casula	48 LINDSAY STREET CASULA	RES	51	39	42	46	46	50	50.8	50.9			
42839	Casula	48 MARSH PARADE CASULA	RES	51	39	42	46	46	59.6	54.9	53.2			
73646	Casula	48 RESERVE ROAD CASULA	RES	51	39	42	46	46	54.5	53.5	50.5			
34778	Casula	48 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62	59.4	52.5			
26048	Casula	48A HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.4	55.4	38.8			
69924	Casula	486 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.3	41.9	38.7			

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
66423	Casula	488 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.1	41.2	38.7	
96436	Casula	49 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.3	56.2	54.9	
58834	Casula	49 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	53	52.5	50.9	
96720	Casula	49 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.3	49.9	51.1	
53778	Casula	49 KITSON WAY CASULA	RES	51	39	42	46	46	49	49.7	49.7	
26318	Casula	49 LEACOCKS LANE CASULA	RES	51	39	42	46	46	55.9	57.3	57.4	
57771	Casula	49 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51	52.1	52.3	
93715	Casula	49 NILAND WAY CASULA	RES	51	39	42	46	46	51.3	49.1	49.9	
31253	Casula	49 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.9	52.7	42.9	
38370	Casula	49 SLESSOR ROAD CASULA	RES	51	39	42	46	46	46.7	50.8	52.2	
13557	Casula	49 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.7	59.5	56.2	
60347	Casula	490 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58	57.4	52.6	
33315	Casula	494 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.9	58.6	56.7	
31702	Casula	496 HUME HIGHWAY CASULA	RES	51	39	42	46	46	59.1	58.8	56.7	
85080	Casula	498 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.6	58.8	56.8	
90996	Casula	49A GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	50.2	51.9	52.8	
15474	Casula	4A DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	57.2	58.1	54.4	
53972	Casula	4A KYLIE WAY CASULA	RES	51	39	42	46	46	51.9	53.4	52.6	
68015	Casula	4A LINDSAY STREET CASULA	RES	51	39	42	46	46	48.6	50.1	52.2	
54849	Casula	4B KYLIE WAY CASULA	RES	51	39	42	46	46	50.5	51.4	43.6	
81012	Casula	4B LINDSAY STREET CASULA	RES	51	39	42	46	46	47.9	49.4	49.8	
70687	Casula	5 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.7	56.4	54.2	
77298	Casula	5 ASTLEY WAY CASULA	RES	51	39	42	46	46	50	51.3	52	
82433	Casula	5 AUGUSTA STREET CASULA	RES	51	39	42	46	46	59.2	59.1	49.7	
94782	Casula	5 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	56.4	58.7	58.2	
39680	Casula	5 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61.5	61	57.8	
37670	Casula	5 COLONIAL PLACE CASULA	RES	51	39	42	46	46	59.3	58.8	55.7	
58895	Casula	5 CUSACK AVENUE CASULA	RES	51	39	42	46	46	50.5	50.9	50.7	
27015	Casula	5 DRYSDALE PLACE CASULA	RES	51	39	42	46	46	49.3	47	48.3	
92686	Casula	5 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	60.1	60.7	58.9	
24561	Casula	5 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	54.5	54.5	51.9	
46943	Casula	5 DURACK PLACE CASULA	RES	51	39	42	46	46	50.6	51.7	53.4	
74768	Casula	5 GIBB AVENUE CASULA	RES	51	39	42	46	46	53.3	52.6	50.6	
2678	Casula	5 GIBSON AVENUE CASULA	RES	51	39	42	46	46	57.3	56.8	54.4	
49576	Casula	5 GILMORE ROAD CASULA	RES	51	39	42	46	46	50	50.3	50.5	
97324	Casula	5 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	47.7	49.5	50.8	
76696	Casula	5 GROVE STREET CASULA	RES	51	39	42	46	46	55.4	53.8	51.7	
15438	Casula	5 HANS PLACE CASULA	RES	51	39	42	46	46	53.4	56	53.1	
76119	Casula	5 HARPUR PLACE CASULA	RES	51	39	42	46	46	46.7	49	49.5	
5590	Casula	5 HILTON CRESCENT CASULA	RES	51	39	42	46	46	51.6	52.9	53.3	
67909	Casula	5 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.3	57.2	55.1	
25382	Casula	5 HOLSTON STREET CASULA	RES	51	39	42	46	46	56.3	55.6	53	
63237	Casula	5 KELLER PLACE CASULA	RES	51	39	42	46	46	58.3	55.8	53.4	
93653	Casula	5 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.3	53.4	52.6	
36771	Casula	5 KENEALLY WAY CASULA	RES	51	39	42	46	46	50.8	52.1	51.9	
59112	Casula	5 KITSON WAY CASULA	RES	51	39	42	46	46	48.7	49.9	50.5	
61751	Casula	5 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	62.2	57.1	53.9	
16128	Casula	5 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.2	51	50.5	
98968	Casula	5 MARSH PARADE CASULA	RES	51	39	42	46	46	59	57.2	52.1	
18847	Casula	5 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	50.2	51.7	49.8	
80121	Casula	5 MCKELL AVENUE CASULA	RES	51	39	42	46	46	53.9	53.4	50.3	
9039	Casula	5 MELBA PLACE CASULA	RES	51	39	42	46	46	52.2	54	53.2	
60697	Casula	5 MORLEY PLACE GLENFIELD	RES	51	39	42	46	46	48	49.6	50.4	
87821	Casula	5 OLD KURRAJONG ROAD CASULA	RES	51	39	42	46	46	56.1	56.7	55.9	
92111	Casula	5 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.8	56.6	54.8	
84192	Casula	5 REGALIA CRESCENT GLENFIELD	RES	51	39	42	46	46	49.4	51.7	52.2	
30523	Casula	5 RUDD CLOSE CASULA	RES	51	39	42	46	46	51.9	50	49.4	
44454	Casula	5 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	59.8	49.5	40.9	
25550	Casula	5 SHUTE WAY CASULA	RES	51	39	42	46	46	51	51.9	49	
34619	Casula	5 SIDNEY PLACE CASULA	RES	51	39	42	46	46	47.8	49.7	50	
9400	Casula	5 SLESSOR ROAD CASULA	RES	51	39	42	46	46	48.8	50.6	50.9	
84094	Casula	5 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.4	58.8	55.9	
28329	Casula	5 STEAD PLACE CASULA	RES	51	39	42	46	46	49.6	51.7	52	
41283	Casula	5 TENNANT STREET CASULA	RES	51	39	42	46	46	49.4	50.9	51.4	
44134	Casula	5 TOM WAY CASULA	RES	51	39	42	46	46	55.8	56.5	56.1	
86827	Casula	5 TUSCAN PLACE CASULA	RES	51	39	42	46	46	60.2	59.9	56.4	
23726	Casula	5 WARATAH AVENUE CASULA	RES	51	39	42	46	46	56.2	53.7	46.3	
75665	Casula	5 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	60.5	57.7	54	
99020	Casula	50 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	59.6	58.7	56.9	
85263	Casula	50 CASULA ROAD CASULA	RES	51	39	42	46	46	54.3	54.9	51.1	
75492	Casula	50 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	52.8	45.8	42.2	
51366	Casula	50 GROVE STREET CASULA	RES	51	39	42	46	46	54.8	50.5	45.8	
48646	Casula	50 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.6	51.4	52	
17211	Casula	50 LINDSAY STREET CASULA	RES	51	39	42	46	46	49.4	49.9	50.1	
34564	Casula	50 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.6	51.7	52.6	
66805	Casula	50 MARSH PARADE CASULA	RES	51	39	42	46	46	59.8	59	43.7	
75473	Casula	50 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.5	52.8	48.2	
9529	Casula	500 HUME HIGHWAY CASULA	RES	51	39	42	46	46	59	54.8	41.9	
89623	Casula	502A HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.7	58.8	56.7	
34723	Casula	504 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.2	58.8	56.6	
53916	Casula	506 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.6	57.8	53.3	
6510	Casula	508 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.4	58.2	48.4	
47590	Casula	51 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.1	56.5	54.9	
103573	Casula	51 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.5	53.4	53.6	
12156	Casula	51 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.4	54.8	54.9	
41520	Casula	51 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.1	52.2	52.4	
74650	Casula	51 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.7	58.1	54.7	
91188	Casula	510 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.2	55.2	54.5	
42593	Casula	511 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.3	57.1	53.8	
82418	Casula	512 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.1	55.4	54.5	
60391	Casula	513 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.6	58.1	55	
63728	Casula	514B HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.7	55.5	54.1	
57966	Casula	515 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.8	42.3	39.6	
77577	Casula	516 HUME HIGHWAY CASULA	RES	51	39	42	46	46	54.5	54.5	54.2	
9535	Casula	517 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.8	55.7	53.9	
80372	Casula	518 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.2	55.4	54.4	
47281	Casula	519 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.1	56.1	53.9	
46930	Casula	51A GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	48	49.6	50.6	
19749	Casula	51A NILAND WAY CASULA	RES	51	39	42	46	46	51.1	54.4	54.6	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
26712	Casula	51B NILAND WAY CASULA	RES	51	39	42	46	46	51.4	52.1	50.2	
96024	Casula	51C GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	48.2	49.6	50.6	
10210	Casula	52 LINDSAY STREET CASULA	RES	51	39	42	46	46	47.9	49.5	52.7	
77794	Casula	52 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.6	51.7	51.9	
33601	Casula	52 MARSH PARADE CASULA	RES	51	39	42	46	46	57.6	59.1	42.7	
20305	Casula	52 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.3	59.8	56.3	
14120	Casula	520 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.6	54.5	54.5	
76614	Casula	521 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.8	55.7	53	
36954	Casula	522 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.2	58.3	53	
46950	Casula	523 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.2	58.1	56.2	
17847	Casula	524 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.3	55.4	52.9	
14693	Casula	525 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.7	44.7	40.6	
26439	Casula	526 HUME HIGHWAY CASULA	RES	51	39	42	46	46	53.5	53.1	53.5	
83925	Casula	527 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.7	57.6	56.3	
34727	Casula	528 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.2	57.3	54.5	
65759	Casula	529 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.2	55.3	40.2	
27846	Casula	52A ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.1	58	55.8	
96238	Casula	53 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.3	56.2	55	
77782	Casula	53 GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	47.5	49.1	49.7	
44548	Casula	53 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.7	54.6	52.3	
56078	Casula	53 NILAND WAY CASULA	RES	51	39	42	46	46	50.8	47.7	51.4	
43340	Casula	53 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62.4	59	56	
4747	Casula	530 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.2	58.4	57	
58573	Casula	531 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.1	58.1	56.5	
14067	Casula	532 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.7	55.3	54.3	
15240	Casula	533 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.7	57	54.7	
82994	Casula	534 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.4	55.9	54.5	
26594	Casula	53-55 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.1	54.5	54.6	
75570	Casula	536 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.8	57	54.3	
42704	Casula	537 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.4	55.4	53.8	
40088	Casula	538 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.2	55.5	54.3	
44332	Casula	53A GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	48.1	49.8	50.4	
72562	Casula	53C GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	48.1	49.8	53	
53200	Casula	54 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.9	57.6	56	
40028	Casula	54 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.6	51.3	51.3	
46322	Casula	54 LINDSAY STREET CASULA	RES	51	39	42	46	46	47.9	49.4	50.1	
37253	Casula	54 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.9	52	52.4	
89225	Casula	54 MARSH PARADE CASULA	RES	51	39	42	46	46	57.4	54.4	43.4	
84534	Casula	54 RESERVE ROAD CASULA	RES	51	39	42	46	46	55.2	54.7	53.4	
48649	Casula	54 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.6	52.2	47.5	
66138	Casula	540 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.9	58.4	54.7	
62994	Casula	542 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57	57.4	45.6	
61236	Casula	544 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.1	56.5	44.8	
88729	Casula	545 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.3	46.2	45.9	
91664	Casula	546 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.8	55.8	54.2	
55190	Casula	548 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.2	57.7	56.7	
7933	Casula	55 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.1	45.9	39.7	
40730	Casula	55 NILAND WAY CASULA	RES	51	39	42	46	46	51	52	53.7	
93249	Casula	55 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62.5	58.1	53.8	
72780	Casula	550 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.2	54.9	47.9	
25352	Casula	551 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.5	54.9	42.3	
10875	Casula	553 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.9	58.3	56.3	
91260	Casula	554 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56	55.9	54.3	
51654	Casula	555 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.4	56	53.9	
47275	Casula	557 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57.6	48.2	44.7	
87664	Casula	55A GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	47.4	49.7	50.7	
77519	Casula	55B GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	48.2	49.8	51.6	
9347	Casula	55C GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	48.3	49.9	50.9	
52908	Casula	56 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.5	57.8	55.9	
62844	Casula	56 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.6	51.2	51.2	
58392	Casula	56 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53.4	54.5	55.5	
104895	Casula	56 RESERVE ROAD CASULA	RES	51	39	42	46	46	55	55.1	44.3	
12591	Casula	56 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.3	59.9	56.4	
50580	Casula	560 HUME HIGHWAY CASULA	RES	51	39	42	46	46	54.1	54.5	53.9	
13568	Casula	566 HUME HIGHWAY CASULA	RES	51	39	42	46	46	53.9	55.4	53.5	
86277	Casula	566A HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.2	55.2	53.9	
101437	Casula	567 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56	56.2	52.9	
13908	Casula	568 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.8	55.6	54.7	
78602	Casula	569 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.7	54.2	53.9	
42198	Casula	57 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.5	48.9	48	
90456	Casula	57 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.2	54.7	54.8	
89269	Casula	57 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61	49	45.6	
52073	Casula	571 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.9	57.2	52.6	
25234	Casula	572-576 HUME HIGHWAY CASULA	RES	51	39	42	46	46	53.8	54.8	54.5	
7796	Casula	573 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.8	55.1	53.7	
15450	Casula	575 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.7	55.1	53.9	
34621	Casula	577 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55	54.7	53.7	
24798	Casula	579 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55	54.6	53.8	
8683	Casula	58 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53.4	54.1	53.2	
37308	Casula	58 MARSH PARADE CASULA	RES	51	39	42	46	46	58.6	59.1	57.8	
66658	Casula	58 RESERVE ROAD CASULA	RES	51	39	42	46	46	54	49.9	43.3	
23623	Casula	58 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.6	51.8	46.6	
36471	Casula	582-588 HUME HIGHWAY CASULA	RES	51	39	42	46	46	53	54.1	53	
85575	Casula	58A ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.8	58	53.2	
6156	Casula	59 GLENFIELD ROAD GLENFIELD	RES	51	39	42	46	46	50.7	52.5	51.8	
61272	Casula	59 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.9	49.4	49.9	
67670	Casula	59 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53	54.4	54.6	
81259	Casula	59 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	63.2	61.1	57	
89216	Casula	5A ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57	55.1	49.7	
83179	Casula	5A CASULA ROAD CASULA	RES	51	39	42	46	46	58.1	59.5	59.6	
72662	Casula	5A HARDY PLACE CASULA	RES	51	39	42	46	46	49.3	51.1	52	
55789	Casula	5A HEYSEN PLACE CASULA	RES	51	39	42	46	46	52.3	54.7	53.8	
32266	Casula	5B CUSACK AVENUE CASULA	RES	51	39	42	46	46	51.5	52.2	52.2	
93853	Casula	5B HARDY PLACE CASULA	RES	51	39	42	46	46	51.5	52.4	51.7	
94923	Casula	6 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.5	55.4	51.7	
58471	Casula	6 ATLANTA PLACE CASULA	RES	51	39	42	46	46	57.5	47.9	46.2	
36803	Casula	6 AUGUSTA STREET CASULA	RES	51	39	42	46	46	59	47.9	44.3	
13186	Casula	6 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61	59	56.7	
11072	Casula	6 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	59.8	58.4	49.2	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
88624	Casula	6 CASULA ROAD CASULA	RES	51	39	42	46	46	57.1	57.9	57.6	
34308	Casula	6 CATO WAY CASULA	RES	51	39	42	46	46	50.1	51.2	51.2	
14500	Casula	6 COLONIAL PLACE CASULA	RES	51	39	42	46	46	59.7	51.5	45.1	
50350	Casula	6 CUSACK AVENUE CASULA	RES	51	39	42	46	46	51.6	53.1	53.5	
81142	Casula	6 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	60.8	62	57.8	
42415	Casula	6 DURACK PLACE CASULA	RES	51	39	42	46	46	51.1	52.6	52.6	
86056	Casula	6 GIBB AVENUE CASULA	RES	51	39	42	46	46	54.4	54.6	51.7	
108169	Casula	6 GROVE STREET CASULA	RES	51	39	42	46	46	55.3	53.1	50.5	
38525	Casula	6 HANS PLACE CASULA	RES	51	39	42	46	46	54.7	55.7	53.4	
11607	Casula	6 HARDY PLACE CASULA	RES	51	39	42	46	46	51.7	53.6	53.6	
89401	Casula	6 HARPUR PLACE CASULA	RES	51	39	42	46	46	50.6	51.2	50.3	
55985	Casula	6 HEYSEN PLACE CASULA	RES	51	39	42	46	46	49.9	47.2	52.6	
17434	Casula	6 HILTON CRESCENT CASULA	RES	51	39	42	46	46	52.4	53.3	48.7	
100642	Casula	6 HITTER AVENUE CASULA	RES	51	39	42	46	46	57.8	56.1	51.9	
67987	Casula	6 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	53.8	51.1	51.1	
99536	Casula	6 HOLSTON STREET CASULA	RES	51	39	42	46	46	57.7	54.5	38.8	
64707	Casula	6 KELLER PLACE CASULA	RES	51	39	42	46	46	58.4	54.8	52.3	
54763	Casula	6 KITSON WAY CASULA	RES	51	39	42	46	46	48	49.1	49.4	
78331	Casula	6 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	63.4	61.2	56.6	
55549	Casula	6 LINDSAY STREET CASULA	RES	51	39	42	46	46	49.1	51.6	51.9	
76314	Casula	6 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.2	52.9	53.5	
38229	Casula	6 MARSH PARADE CASULA	RES	51	39	42	46	46	60.9	59.5	55.2	
40976	Casula	6 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	51	52	52.2	
27922	Casula	6 MCKELL AVENUE CASULA	RES	51	39	42	46	46	54.6	54.1	51.9	
57415	Casula	6 MELBA PLACE CASULA	RES	51	39	42	46	46	51.9	52.8	52.9	
9325	Casula	6 NILAND WAY CASULA	RES	51	39	42	46	46	52.7	54.6	55	
81136	Casula	6 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	58.7	57.7	53.5	
20582	Casula	6 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	60.3	57.2	53.6	
36082	Casula	6 REGALIA CRESCENT GLENFIELD	RES	51	39	42	46	46	47.5	49.1	50.1	
69124	Casula	6 RESERVE ROAD CASULA	RES	51	39	42	46	46	52.9	48.8	44.7	
90791	Casula	6 ROBERTS ROAD CASULA	RES	51	39	42	46	46	53.1	54.1	54.2	
58683	Casula	6 RUDD CLOSE CASULA	RES	51	39	42	46	46	51.7	51.9	52.3	
85378	Casula	6 RUSHTON PLACE CASULA	RES	51	39	42	46	46	61.3	62	58.8	
34978	Casula	6 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	58.9	57.2	53.8	
20030	Casula	6 SLESSOR ROAD CASULA	RES	51	39	42	46	46	49.1	50.9	52.1	
16641	Casula	6 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59	57.4	53.8	
28102	Casula	6 STEAD PLACE CASULA	RES	51	39	42	46	46	49.6	51.8	51.9	
18967	Casula	6 TOM WAY CASULA	RES	51	39	42	46	46	51.4	53.5	54.2	
96965	Casula	6 TUSCAN PLACE CASULA	RES	51	39	42	46	46	61.8	58.7	56	
104086	Casula	6 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54.8	55.2	52.8	
87880	Casula	6 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	58.9	58.8	55.6	
100057	Casula	60 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56	58.5	58.3	
60885	Casula	60 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.1	51	51.1	
37324	Casula	60 MACKELLAR STREET CASULA	RES	51	39	42	46	46	53.4	54.3	54.5	
49595	Casula	60 MARSH PARADE CASULA	RES	51	39	42	46	46	56.4	56.9	55.2	
9228	Casula	60 RESERVE ROAD CASULA	RES	51	39	42	46	46	54.3	54.7	51.3	
99127	Casula	60 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	63.2	61.3	56.6	
50764	Casula	604 HUME HIGHWAY CASULA	RES	51	39	42	46	46	50.4	51.1	50	
104726	Casula	606-608 HUME HIGHWAY CASULA	RES	51	39	42	46	46	48.9	49.8	50	
14887	Casula	61 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.5	53	53.1	
86813	Casula	61 LEACOCKS LANE CASULA	RES	51	39	42	46	46	54.5	54.5	54.6	
62206	Casula	61 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.5	52.2	55	
17293	Casula	6-10 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.6	53.2	53.2	
53697	Casula	62 MARSH PARADE CASULA	RES	51	39	42	46	46	56.2	49.7	41.2	
80699	Casula	62 RESERVE ROAD CASULA	RES	51	39	42	46	46	54.1	54.6	53.6	
69192	Casula	62 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	64	62.6	59.2	
25370	Casula	624 HUME HIGHWAY CASULA	RES	51	39	42	46	46	48.5	49.1	49.3	
72612	Casula	63 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.1	55.3	55.5	
90815	Casula	63 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.9	60	56.5	
70691	Casula	630 HUME HIGHWAY CASULA	RES	51	39	42	46	46	49.7	50.3	48.9	
64715	Casula	63A KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.1	51.7	51.9	
29503	Casula	63B KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.1	49.4	49.6	
26338	Casula	64 MARSH PARADE CASULA	RES	51	39	42	46	46	58.8	58.9	56.6	
63164	Casula	64 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62.6	59.6	52.6	
22612	Casula	65 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.5	49.6	47.5	
55796	Casula	65 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.8	60	51.3	
13912	Casula	65-69 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.3	54.4	54.6	
19228	Casula	66 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62.7	51	51.9	
8703	Casula	66A MARSH PARADE CASULA	RES	51	39	42	46	46	53.5	57.1	52.3	
10496	Casula	67 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.2	51.3	51.5	
44833	Casula	67 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62	58.5	51	
57014	Casula	68 ALCOCK AVENUE CASULA	RES	51	39	42	46	46	48.7	50.1	51.5	
17601	Casula	68 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.9	50.8	50.9	
26180	Casula	68 MARSH PARADE CASULA	RES	51	39	42	46	46	56.6	58.4	57	
53829	Casula	68 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.9	60.8	56.8	
50785	Casula	69 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.3	51.9	50.6	
74636	Casula	69 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53	54.5	54.7	
35674	Casula	69 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62.9	63	59.6	
14038	Casula	6A KYLIE WAY CASULA	RES	51	39	42	46	46	50.2	51.1	51.2	
20703	Casula	6A SIDNEY PLACE CASULA	RES	51	39	42	46	46	49.6	49.9	50.4	
88943	Casula	6A WHITE WAY CASULA	RES	51	39	42	46	46	49.1	42.3	48.7	
49613	Casula	6B BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	52.5	53.1	51.7	
75363	Casula	6B KYLIE WAY CASULA	RES	51	39	42	46	46	51	51.6	47.8	
28635	Casula	6B WHITE WAY CASULA	RES	51	39	42	46	46	49.7	51.2	52	
83659	Casula	7 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	59.4	59	54.6	
2969	Casula	7 ASTLEY WAY CASULA	RES	51	39	42	46	46	51.5	50.6	51.7	
98624	Casula	7 AUGUSTA STREET CASULA	RES	51	39	42	46	46	60.9	60.4	57.8	
61925	Casula	7 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	56.8	58.2	48	
7072	Casula	7 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	51.4	52.1	52.8	
48669	Casula	7 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61.6	61.1	57.9	
47710	Casula	7 CASULA ROAD CASULA	RES	51	39	42	46	46	60.6	61.3	61	
28192	Casula	7 COLONIAL PLACE CASULA	RES	51	39	42	46	46	62.8	59	55.7	
16473	Casula	7 CUSACK AVENUE CASULA	RES	51	39	42	46	46	52.9	53.7	53.6	
98744	Casula	7 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.5	51.6	50.3	
12843	Casula	7 DRYSDALE PLACE CASULA	RES	51	39	42	46	46	48.6	49.7	50.1	
68872	Casula	7 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	58.5	57.4	55.7	
102898	Casula	7 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	55.5	54.8	51.1	
59328	Casula	7 DURACK PLACE CASULA	RES	51	39	42	46	46	53.3	53.9	45.8	
45739	Casula	7 GIBB AVENUE CASULA	RES	51	39	42	46	46	55.4	46.9	42.2	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
68167	Casula	7 GIBSON AVENUE CASULA	RES	51	39	42	46	46	55.5	49.4	51.4
89249	Casula	7 GILMORE ROAD CASULA	RES	51	39	42	46	46	49.6	52	53
44354	Casula	7 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	47.9	51.8	53.3
87201	Casula	7 GROVE STREET CASULA	RES	51	39	42	46	46	54.8	53.7	51.3
40274	Casula	7 HANS PLACE CASULA	RES	51	39	42	46	46	52.9	55.4	57.1
15723	Casula	7 HARDY PLACE CASULA	RES	51	39	42	46	46	49.4	51.1	51.9
20267	Casula	7 HARPUR PLACE CASULA	RES	51	39	42	46	46	48.2	49.7	52
63834	Casula	7 HEYSEN PLACE CASULA	RES	51	39	42	46	46	53.1	53.4	55.3
28790	Casula	7 HILTON CRESCENT CASULA	RES	51	39	42	46	46	52.4	53.7	53.6
84635	Casula	7 KELLER PLACE CASULA	RES	51	39	42	46	46	57.5	44.8	41.5
7401	Casula	7 KENEALLY WAY CASULA	RES	51	39	42	46	46	50.9	51.3	50.8
25264	Casula	7 KITSON WAY CASULA	RES	51	39	42	46	46	48.9	50.5	49.9
46012	Casula	7 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	60.4	60	56.4
82255	Casula	7 LANG ROAD CASULA	RES	51	39	42	46	46	57.9	58.1	42.9
82101	Casula	7 MACKELLAR STREET CASULA	RES	51	39	42	46	46	48.8	50.1	37.5
78985	Casula	7 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	49.1	50	50.2
8798	Casula	7 MCKELL AVENUE CASULA	RES	51	39	42	46	46	57.6	57.1	55
19765	Casula	7 MELBA PLACE CASULA	RES	51	39	42	46	46	53.1	55.2	55.4
37560	Casula	7 OLD KURRAJONG ROAD CASULA	RES	51	39	42	46	46	56.9	57.4	55.9
86074	Casula	7 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.7	58.2	54.3
58376	Casula	7 ROBERTS ROAD CASULA	RES	51	39	42	46	46	54.8	55.9	56
71545	Casula	7 RUDD CLOSE CASULA	RES	51	39	42	46	46	50.3	51.7	52.1
59390	Casula	7 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	58.7	57.8	53
70636	Casula	7 SHUTE WAY CASULA	RES	51	39	42	46	46	51.5	52.7	53
35455	Casula	7 SLESSOR ROAD CASULA	RES	51	39	42	46	46	51.3	52.7	51.9
24109	Casula	7 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.4	58.7	55.1
87384	Casula	7 STEAD PLACE CASULA	RES	51	39	42	46	46	50.7	50.5	50.9
76837	Casula	7 TENNANT STREET CASULA	RES	51	39	42	46	46	51.5	52	49.4
17840	Casula	7 TOM WAY CASULA	RES	51	39	42	46	46	53.2	54.3	54.4
39186	Casula	7 TUSCAN PLACE CASULA	RES	51	39	42	46	46	60.6	60.3	56.7
69968	Casula	7 WARATAH AVENUE CASULA	RES	51	39	42	46	46	55.8	55	52.9
30314	Casula	7 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	61.8	57.5	54.1
28229	Casula	70 ALCOCK AVENUE CASULA	RES	51	39	42	46	46	48.6	50.1	50.8
71973	Casula	70 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	59.6	60.5	58.7
63850	Casula	70 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.8	50.7	50.9
68674	Casula	70 MARSH PARADE CASULA	RES	51	39	42	46	46	54.1	55.9	54.5
13364	Casula	70 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.9	54.2	45.5
39910	Casula	71 KENDALL DRIVE CASULA	RES	51	39	42	46	46	40.9	43.8	45
56311	Casula	71 LEACOCKS LANE CASULA	RES	51	39	42	46	46	55.1	54.5	54.7
77497	Casula	71 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.9	60.4	56.8
35945	Casula	72 ALCOCK AVENUE CASULA	RES	51	39	42	46	46	48.6	50.2	50.2
76143	Casula	72 MARSH PARADE CASULA	RES	51	39	42	46	46	56.8	51.3	41.8
47092	Casula	72 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	63.9	62.8	57.5
67011	Casula	73 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.3	52.2	51.1
93243	Casula	73 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.4	60.7	58.7
72332	Casula	73A LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.8	54.5	54.7
90567	Casula	73B LEACOCKS LANE CASULA	RES	51	39	42	46	46	54.1	56.5	56.8
11567	Casula	74 ALCOCK AVENUE CASULA	RES	51	39	42	46	46	48.5	50	50.8
85849	Casula	74 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.7	50.6	50.8
87564	Casula	74 MARSH PARADE CASULA	RES	51	39	42	46	46	54	52.8	40.4
98847	Casula	74 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	63.9	63	59.6
55618	Casula	75 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.6	52.4	53.1
77922	Casula	75 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.3	55.3	55.4
86355	Casula	75 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.3	60.7	55.6
81977	Casula	76 ALCOCK AVENUE CASULA	RES	51	39	42	46	46	48.5	50	50.7
89351	Casula	76 MARSH PARADE CASULA	RES	51	39	42	46	46	57.4	57.7	55.5
16154	Casula	76 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62.3	59.2	53
77051	Casula	77 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.5	49.9	43.4
70894	Casula	77 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62.8	61.2	56.7
39668	Casula	78 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.6	50.5	50.7
88428	Casula	78 MARSH PARADE CASULA	RES	51	39	42	46	46	55.4	55.5	55.9
28946	Casula	79 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.9	51.2	44.2
52968	Casula	79 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.5	59.8	55.8
69052	Casula	79-83 LEACOCKS LANE CASULA	RES	51	39	42	46	46	54.1	55.4	54.6
77276	Casula	7A MARSH PARADE CASULA	RES	51	39	42	46	46	59.5	60.2	56.4
30399	Casula	7B KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.3	53.2	53
65890	Casula	7B SIDNEY PLACE CASULA	RES	51	39	42	46	46	49.9	51.6	52.5
101288	Casula	8 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.4	57.6	54.2
73910	Casula	8 ATLANTA PLACE CASULA	RES	51	39	42	46	46	59.1	55.8	46.6
62739	Casula	8 AUGUSTA STREET CASULA	RES	51	39	42	46	46	59.2	55.5	54
85797	Casula	8 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.8	57.6	48
55281	Casula	8 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	61	60.6	56.3
64515	Casula	8 CASULA ROAD CASULA	RES	51	39	42	46	46	56	57.7	57.6
60128	Casula	8 CLUNE CLOSE CASULA	RES	51	39	42	46	46	47.6	49.3	49.5
70239	Casula	8 COLONIAL PLACE CASULA	RES	51	39	42	46	46	62.2	52.4	46.9
38362	Casula	8 CUSACK AVENUE CASULA	RES	51	39	42	46	46	51.7	53.2	53.7
77982	Casula	8 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.7	56.9	55.2
84085	Casula	8 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	59	55.8	54.5
35150	Casula	8 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	56.7	54.2	52.1
59549	Casula	8 DURACK PLACE CASULA	RES	51	39	42	46	46	53	53.9	53.9
57258	Casula	8 GIBB AVENUE CASULA	RES	51	39	42	46	46	56.2	54.6	51.1
71567	Casula	8 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	47.5	50.4	54.6
54062	Casula	8 GROVE STREET CASULA	RES	51	39	42	46	46	56	52.4	49.6
18609	Casula	8 HARPUR PLACE CASULA	RES	51	39	42	46	46	48	49.5	50.5
69540	Casula	8 HEYSEN PLACE CASULA	RES	51	39	42	46	46	52	52.3	45.2
10167	Casula	8 HILTON CRESCENT CASULA	RES	51	39	42	46	46	51.6	52.3	52.1
95363	Casula	8 HITTER AVENUE CASULA	RES	51	39	42	46	46	58	56.1	52.2
67613	Casula	8 KELLER PLACE CASULA	RES	51	39	42	46	46	57.5	53.7	47.2
52580	Casula	8 KITSON WAY CASULA	RES	51	39	42	46	46	49.1	49.1	49.3
88359	Casula	8 LAKEWOOD CRESCENT CASULA	RES	51	39	42	46	46	59.3	53.5	50.3
24500	Casula	8 LANG ROAD CASULA	RES	51	39	42	46	46	56	55.2	54.2
89207	Casula	8 LINDSAY STREET CASULA	RES	51	39	42	46	46	49.7	50.5	51
94131	Casula	8 MACKELLAR STREET CASULA	RES	51	39	42	46	46	52	52.7	52.8
35803	Casula	8 MARSH PARADE CASULA	RES	51	39	42	46	46	60.2	60.4	57.7
28469	Casula	8 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	49.9	48.1	46.7
10880	Casula	8 MCKELL AVENUE CASULA	RES	51	39	42	46	46	57.2	56.8	54.5
87947	Casula	8 MELBA PLACE CASULA	RES	51	39	42	46	46	51.8	52.9	53
45365	Casula	8 NILAND WAY CASULA	RES	51	39	42	46	46	51	52.4	52.7
98379	Casula	8 PENSACOLA PLACE CASULA	RES	51	39	42	46	46	58.7	57.8	55

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
75773	Casula	8 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	58.3	57.2	53.6	
12665	Casula	8 REGALIA CRESCENT GLENFIELD	RES	51	39	42	46	46	48.3	49.2	50.1	
66192	Casula	8 RESERVE ROAD CASULA	RES	51	39	42	46	46	53.1	52.7	51.3	
12164	Casula	8 ROBERTS ROAD CASULA	RES	51	39	42	46	46	51	45.2	48.5	
19989	Casula	8 RUDD CLOSE CASULA	RES	51	39	42	46	46	52.3	51.8	52.3	
77685	Casula	8 RUSHTON PLACE CASULA	RES	51	39	42	46	46	58.5	59.1	58.4	
50596	Casula	8 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	60.5	51.1	46.1	
77968	Casula	8 SLESSOR ROAD CASULA	RES	51	39	42	46	46	51.6	53.5	54.7	
97832	Casula	8 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57.2	44.7	42	
50026	Casula	8 STEAD PLACE CASULA	RES	51	39	42	46	46	50.5	51.5	51.8	
18752	Casula	8 TOM WAY CASULA	RES	51	39	42	46	46	55	55.7	54.6	
78350	Casula	8 TUSCAN PLACE CASULA	RES	51	39	42	46	46	60.4	58.6	57.5	
14245	Casula	8 WARATAH AVENUE CASULA	RES	51	39	42	46	46	55.8	54.6	51.5	
68768	Casula	8 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	61.1	55.2	44.7	
22941	Casula	8 WHITE WAY CASULA	RES	51	39	42	46	46	51.5	51.6	52.1	
12037	Casula	80 ALCOCK AVENUE CASULA	RES	51	39	42	46	46	48.1	42.1	43	
25298	Casula	80 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.5	50.4	50.6	
4167	Casula	80 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	63.9	54.7	48	
12824	Casula	81 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.1	51.7	51.2	
37246	Casula	81 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.9	60.3	55.5	
59530	Casula	82 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.9	52.9	53	
45098	Casula	82 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	63.6	59.1	49.9	
33722	Casula	82A ALCOCK AVENUE CASULA	RES	51	39	42	46	46	48.5	50.2	50.6	
40295	Casula	83 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51	52.5	53	
101600	Casula	83 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62.2	57.1	46.3	
17384	Casula	84 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	62.1	60	51.6	
89974	Casula	84A ALCOCK AVENUE CASULA	RES	51	39	42	46	46	48.9	50.3	53.1	
57348	Casula	84A KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.8	52.9	53.1	
92993	Casula	84B ALCOCK AVENUE CASULA	RES	51	39	42	46	46	49.2	51.2	51.4	
78693	Casula	84B KENDALL DRIVE CASULA	RES	51	39	42	46	46	50	52.7	52.8	
50519	Casula	85 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.7	51.1	50.9	
66235	Casula	85 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.4	54.1	54.5	
64587	Casula	85 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.7	59.4	55.6	
82340	Casula	86 KENDALL DRIVE CASULA	RES	51	39	42	46	46	46.8	45.2	45.9	
64769	Casula	87 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.8	52.3	51	
38780	Casula	87 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.3	54	54.4	
74383	Casula	87 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.6	57.4	53.9	
92931	Casula	88 KENDALL DRIVE CASULA	RES	51	39	42	46	46	51.4	52.3	52.4	
26397	Casula	88 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.2	59.2	54.9	
16928	Casula	89 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.2	49.4	52.3	
23971	Casula	89 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.2	53.9	54.3	
94898	Casula	89 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.2	60.4	56.1	
51377	Casula	8A CATO WAY CASULA	RES	51	39	42	46	46	48.3	48.8	44.7	
96589	Casula	8A GILMORE ROAD CASULA	RES	51	39	42	46	46	48	50.5	52.3	
11777	Casula	8A KYLIE WAY CASULA	RES	51	39	42	46	46	51	53.6	51	
67848	Casula	8A RESERVE ROAD CASULA	RES	51	39	42	46	46	53.2	52.6	47.5	
84864	Casula	8A SIDNEY PLACE CASULA	RES	51	39	42	46	46	48.4	48.9	49.9	
48078	Casula	8B GILMORE ROAD CASULA	RES	51	39	42	46	46	45.9	44.4	49.6	
48801	Casula	8B HANS PLACE CASULA	RES	51	39	42	46	46	52.4	53.6	53.6	
35252	Casula	8B KYLIE WAY CASULA	RES	51	39	42	46	46	51	51.9	47.6	
28141	Casula	9 ALBION CRESCENT GLENFIELD	RES	51	39	42	46	46	48.7	49.2	50.6	
57353	Casula	9 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	58.2	56.9	46.4	
43982	Casula	9 ASTLEY WAY CASULA	RES	51	39	42	46	46	45.5	47.3	50.5	
54577	Casula	9 AUGUSTA STREET CASULA	RES	51	39	42	46	46	58.1	58.2	57.2	
74689	Casula	9 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	56.4	56.9	55.6	
35311	Casula	9 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	51.1	53.5	53.7	
77237	Casula	9 BUCKLAND ROAD CASULA	RES	51	39	42	46	46	63.4	61.3	57.5	
90884	Casula	9 CANBERRA AVENUE CASULA	RES	51	39	42	46	46	58	58.5	45.3	
65007	Casula	9 CASULA ROAD CASULA	RES	51	39	42	46	46	59.9	60.8	58.6	
74028	Casula	9 COLONIAL PLACE CASULA	RES	51	39	42	46	46	60.9	59.3	56.4	
47735	Casula	9 CUSACK AVENUE CASULA	RES	51	39	42	46	46	50.2	53.3	53.4	
66266	Casula	9 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	57.5	57.7	55.7	
34896	Casula	9 DRYSDALE PLACE CASULA	RES	51	39	42	46	46	50.2	51.5	51.8	
16531	Casula	9 DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	58.8	59.9	58.5	
69276	Casula	9 DUNROSSIL AVENUE CASULA	RES	51	39	42	46	46	54.3	54.1	51.8	
83491	Casula	9 GIBB AVENUE CASULA	RES	51	39	42	46	46	53.5	53	50.7	
102072	Casula	9 GIBSON AVENUE CASULA	RES	51	39	42	46	46	54.8	53.9	48.8	
8567	Casula	9 GILMORE ROAD CASULA	RES	51	39	42	46	46	48.8	50.4	51.2	
17478	Casula	9 GLORY ROAD GLENFIELD	RES	51	39	42	46	46	50.3	52.1	53.1	
23455	Casula	9 GROVE STREET CASULA	RES	51	39	42	46	46	54.5	53.6	51.2	
45508	Casula	9 HANS PLACE CASULA	RES	51	39	42	46	46	52.8	54.3	55.1	
62297	Casula	9 HARPUR PLACE CASULA	RES	51	39	42	46	46	47.3	50.2	50.6	
35124	Casula	9 HEYSEN PLACE CASULA	RES	51	39	42	46	46	53.2	53.6	52.3	
88296	Casula	9 HILTON CRESCENT CASULA	RES	51	39	42	46	46	51.8	53.5	53.1	
95500	Casula	9 HITTER AVENUE CASULA	RES	51	39	42	46	46	56.5	55.6	53.9	
16487	Casula	9 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.3	56.8	52.9	
9657	Casula	9 KELLER PLACE CASULA	RES	51	39	42	46	46	59.4	55.3	51.1	
27962	Casula	9 KENDALL DRIVE CASULA	RES	51	39	42	46	46	54.3	54.7	53	
9744	Casula	9 KITSON WAY CASULA	RES	51	39	42	46	46	49.1	49.4	50	
83166	Casula	9 LANG ROAD CASULA	RES	51	39	42	46	46	57.9	45.8	43.4	
37642	Casula	9 LEACOCKS LANE CASULA	RES	51	39	42	46	46	54.2	54.8	54.7	
66965	Casula	9 MARSH PARADE CASULA	RES	51	39	42	46	46	57.9	57.9	57.3	
67964	Casula	9 MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	50.2	47.8	48.9	
99188	Casula	9 MCKELL AVENUE CASULA	RES	51	39	42	46	46	55	54.6	52.5	
55412	Casula	9 MELBA PLACE CASULA	RES	51	39	42	46	46	52.5	53.8	53.9	
93195	Casula	9 MORLEY PLACE GLENFIELD	RES	51	39	42	46	46	50.5	50	51.7	
55001	Casula	9 OLD KURRAJONG ROAD CASULA	RES	51	39	42	46	46	55.4	56.7	53.8	
16363	Casula	9 PHOENIX CRESCENT CASULA	RES	51	39	42	46	46	59.4	57.2	53.6	
70570	Casula	9 SEGEFIELD PLACE CASULA	RES	51	39	42	46	46	59.7	57.1	54.6	
17146	Casula	9 SHUTE WAY CASULA	RES	51	39	42	46	46	48.9	49.7	50.5	
42241	Casula	9 SLESSOR ROAD CASULA	RES	51	39	42	46	46	51.6	53.6	52.5	
27274	Casula	9 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	58.9	41.4	38.3	
40269	Casula	9 STEAD PLACE CASULA	RES	51	39	42	46	46	49.2	50.7	51.6	
15062	Casula	9 TENNANT STREET CASULA	RES	51	39	42	46	46	50.7	51.3	49.9	
18075	Casula	9 TUSCAN PLACE CASULA	RES	51	39	42	46	46	62.5	61.9	51.9	
72991	Casula	9 WARATAH AVENUE CASULA	RES	51	39	42	46	46	54	53.8	51.1	
72443	Casula	9 WESTCHESTER AVENUE CASULA	RES	51	39	42	46	46	60.9	58	54.3	
30319	Casula	90 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.6	50.6	50.4	
53374	Casula	90 LEACOCKS LANE CASULA	RES	51	39	42	46	46	55.1	54.5	50.1	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
75386	Casula	90 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.5	61.1	57.4
35459	Casula	91 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.2	49.4	50
75985	Casula	91 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.5	53.8	54.2
94724	Casula	91 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.1	57.6	55.9
95261	Casula	92 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.1	50.1	51.6
60687	Casula	92 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	60.5	58.7	55.8
61720	Casula	93 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.9	50.7	44.9
13502	Casula	93 LEACOCKS LANE CASULA	RES	51	39	42	46	46	54.4	56.2	56.4
9777	Casula	93 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.3	55.8	53.5
96419	Casula	94 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61	59.9	55.9
34520	Casula	95 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49	49.9	49.9
63298	Casula	95 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52	53.6	54.7
90075	Casula	95 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59.5	58.2	54.3
91989	Casula	96 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.9	60	56.3
103542	Casula	97 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.7	49.4	49.5
82112	Casula	97 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	57	56.1	54.3
4575	Casula	97-99 LEACOCKS LANE CASULA	RES	51	39	42	46	46	54.1	54.7	56.3
89711	Casula	98 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.6	51.3	50.3
69761	Casula	98 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	61.9	61.1	58.1
46603	Casula	99 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.2	51.4	51.6
86121	Casula	99 ST ANDREWS BOULEVARD CASULA	RES	51	39	42	46	46	59	49.7	47.1
22558	Casula	9A CASULA ROAD CASULA	RES	51	39	42	46	46	60.4	60.9	60.5
44852	Casula	9A KENALLY WAY CASULA	RES	51	39	42	46	46	51.1	53.1	52.6
89551	Casula	9A MCCUBBIN PLACE CASULA	RES	51	39	42	46	46	50.9	51.6	50.2
16944	Casula	9A SIDNEY PLACE CASULA	RES	51	39	42	46	46	49.1	51.4	51.8
59042	Casula	9B ROBERTS ROAD CASULA	RES	51	39	42	46	46	55	55.6	53.6
28581	Casula	9B TOM WAY CASULA	RES	51	39	42	46	46	53	54.2	54.3
23277	Casula	CASULA PUBLIC SCHOOL 6 DE MEYRICK AVENUE	RES	51	39	42	46	46	56.4	54	52.8
7718	Casula	FORMULE ONE HOTEL 437 HUME HIGHWAY CASUL	RES	51	39	42	46	46	55.3	54.4	51.9
3653	Casula	GLENFIELD FARM 88 LEACOCKS LANE CASULA	RES	51	39	42	46	46	53.9	55.9	56.4
4244	Casula	INGHAMS HOUSE 2 OLD KURRAJONG ROAD CASUL	RES	51	39	42	46	46	55.6	56.3	55.5
26306	Casula	SHOP 3/ 562 HUME HIGHWAY CASULA	RES	51	39	42	46	46	53.6	54.2	55.1
90392	Casula	UNIT 1/ 13 GROVE STREET CASULA	RES	51	39	42	46	46	54.3	53.6	53.2
29428	Casula	UNIT 1/ 13 SHUTE WAY CASULA	RES	51	39	42	46	46	49.5	49.9	48.1
5973	Casula	UNIT 1/ 130 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	47.6	49.1	49.9
69232	Casula	UNIT 1/ 14 CATO WAY CASULA	RES	51	39	42	46	46	52.4	53.4	53.4
3411	Casula	UNIT 1/ 154-156 LEACOCKS LANE CASULA	RES	51	39	42	46	46	50.8	51.9	50.8
15898	Casula	UNIT 1/ 16 NILAND WAY CASULA	RES	51	39	42	46	46	51.3	52.7	52.6
16008	Casula	UNIT 1/ 17-19 CASULA ROAD CASULA	RES	51	39	42	46	46	56.4	57.3	56.8
30207	Casula	UNIT 1/ 18 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	49.6	46.8	46.5
3271	Casula	UNIT 1/ 18 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.8	50.8	50.3
48579	Casula	UNIT 1/ 2 CUSACK AVENUE CASULA	RES	51	39	42	46	46	51.2	52.5	54.8
15222	Casula	UNIT 1/ 2 NOLAN STREET CASULA	RES	51	39	42	46	46	48	49.6	50.5
39290	Casula	UNIT 1/ 2 ROBERTS ROAD CASULA	RES	51	39	42	46	46	53.4	54.2	54.2
26155	Casula	UNIT 1/ 25 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51	52.4	52.2
29416	Casula	UNIT 1/ 29-33 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.2	55	51.9
94003	Casula	UNIT 1/ 3 NEVIL WAY CASULA	RES	51	39	42	46	46	48.3	49.7	50.3
70198	Casula	UNIT 1/ 35 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.5	52.9	50.4
13087	Casula	UNIT 1/ 38 CATO WAY CASULA	RES	51	39	42	46	46	52.8	52.2	53.2
51097	Casula	UNIT 1/ 4 DURACK PLACE CASULA	RES	51	39	42	46	46	52.6	53.2	52.7
31858	Casula	UNIT 1/ 41-45 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.9	47.2	45.6
91508	Casula	UNIT 1/ 443 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.2	56.9	53.8
25451	Casula	UNIT 1/ 47 MACKELLAR STREET CASULA	RES	51	39	42	46	46	51.4	51.9	51.3
48303	Casula	UNIT 1/ 48 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.5	51.7	52.7
93420	Casula	UNIT 1/ 492 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.3	50.3	49.2
44937	Casula	UNIT 1/ 5 NEVIL WAY CASULA	RES	51	39	42	46	46	51.4	50.8	47.4
5056	Casula	UNIT 1/ 52-56 GROVE STREET CASULA	RES	51	39	42	46	46	54.2	53.2	49.6
3760	Casula	UNIT 1/ 580-588 HUME HIGHWAY CASULA	RES	51	39	42	46	46	54.8	55.1	52.8
42472	Casula	UNIT 1/ 59 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49	50.5	51
66237	Casula	UNIT 1/ 606-608 HUME HIGHWAY CASULA	RES	51	39	42	46	46	50.8	51.3	51.7
20469	Casula	UNIT 1/ 64-66 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50	50.9	51
103582	Casula	UNIT 1/ 7 NEVIL WAY CASULA	RES	51	39	42	46	46	49.8	51.2	52.6
39959	Casula	UNIT 1/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	51.7	52.3	51.8
91796	Casula	UNIT 1/ 8A DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	59.5	60.1	58.3
12065	Casula	UNIT 10/ 29-33 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.6	55.8	53.5
43989	Casula	UNIT 10/ 31 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55	55.4	54.4
18959	Casula	UNIT 10/ 42B GRAHAM AVENUE CASULA	RES	51	39	42	46	46	55.2	54.8	52.1
45648	Casula	UNIT 10/ 52-56 GROVE STREET CASULA	RES	51	39	42	46	46	52.7	52.3	50.8
61282	Casula	UNIT 10/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	48.2	50.5	50.8
55686	Casula	UNIT 11/ 14 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	56.9	53.5	48.9
40544	Casula	UNIT 11/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	50.9	52.5	53.8
102648	Casula	UNIT 11/ 31 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	53.6	52.6	52.2
63486	Casula	UNIT 11/ 493 HUME HIGHWAY CASULA	RES	51	39	42	46	46	55.9	55.6	53.4
41447	Casula	UNIT 11/ 606-608 HUME HIGHWAY CASULA	RES	51	39	42	46	46	50.6	51.6	51.5
97332	Casula	UNIT 11/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	49.4	50.1	44.4
51596	Casula	UNIT 12/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	51.1	52.8	53.5
70471	Casula	UNIT 12/ 31 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.8	49	46.2
46706	Casula	UNIT 13/ 130 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.3	49.9	51.8
27196	Casula	UNIT 13/ 51-53 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	53	52.5	50.6
23570	Casula	UNIT 14/ 130 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	49.9	50.8	50
11028	Casula	UNIT 14/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.6	50.3	51.4
86319	Casula	UNIT 14/ 31 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56	56.3	55.2
64493	Casula	UNIT 15/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.6	50.2	51.2
62081	Casula	UNIT 16/ 14 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.4	54.9	52.5
42344	Casula	UNIT 17/ 130 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.4	50.3	52.5
16745	Casula	UNIT 18/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.7	50.2	51.1
95644	Casula	UNIT 19/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	50.6	49.2	42.5
103602	Casula	UNIT 19/ 18 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.1	57.4	55.9
56430	Casula	UNIT 2/ 10 DURACK PLACE CASULA	RES	51	39	42	46	46	50.4	51.6	52.2
31642	Casula	UNIT 2/ 12 SIDNEY PLACE CASULA	RES	51	39	42	46	46	48.4	50.1	50.4
4549	Casula	UNIT 2/ 13 KENALLY WAY CASULA	RES	51	39	42	46	46	54	52.6	52.8
89133	Casula	UNIT 2/ 13 SHUTE WAY CASULA	RES	51	39	42	46	46	48.9	50	50.5
43492	Casula	UNIT 2/ 13 TENNANT STREET CASULA	RES	51	39	42	46	46	46.9	47.6	49.9
35662	Casula	UNIT 2/ 14-18 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	57.5	56.2	45.1
21839	Casula	UNIT 2/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.6	50	51
106476	Casula	UNIT 2/ 18 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.2	48.4	46.8
78279	Casula	UNIT 2/ 19 CUSACK AVENUE CASULA	RES	51	39	42	46	46	52	53.3	52.8
24205	Casula	UNIT 2/ 2 RUSHTON PLACE CASULA	RES	51	39	42	46	46	58.6	59.4	58.8
13381	Casula	UNIT 2/ 26 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56	47.1	51

ID	NCA	Address	Land use	Laeq, 15 minute noise level										
				Noise management level						Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3				
					1	2	3							
			Key		Exceeds Standard NML			exceeds OOHW 3 NML						
36245 Casula		UNIT 2/ 29-33 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54.1	52.2	49.8			
14102 Casula		UNIT 2/ 3 NEVIL WAY CASULA	RES	51	39	42	46	46	48.9	50.1	45.7			
30422 Casula		UNIT 2/ 3 ROBERTS ROAD CASULA	RES	51	39	42	46	46	54.3	54.7	53.7			
92264 Casula		UNIT 2/ 31 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.7	52.9	52.6			
31870 Casula		UNIT 2/ 33 MACKELLAR STREET CASULA	RES	51	39	42	46	46	50.7	52	52.3			
88706 Casula		UNIT 2/ 34 NILAND WAY CASULA	RES	51	39	42	46	46	53.5	52.5	52.7			
83191 Casula		UNIT 2/ 38 TOM WAY CASULA	RES	51	39	42	46	46	51.9	53.6	54.1			
2764 Casula		UNIT 2/ 4 CATO WAY CASULA	RES	51	39	42	46	46	50	42	39.9			
89923 Casula		UNIT 2/ 41-45 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56.3	56.2	54.6			
57762 Casula		UNIT 2/ 493 HUME HIGHWAY CASULA	RES	51	39	42	46	46	58.3	54.5	39.1			
100500 Casula		UNIT 2/ 52-56 GROVE STREET CASULA	RES	51	39	42	46	46	54.7	54.4	51.2			
96047 Casula		UNIT 2/ 565 HUME HIGHWAY CASULA	RES	51	39	42	46	46	57	50.5	43.9			
79761 Casula		UNIT 2/ 6 LANG ROAD CASULA	RES	51	39	42	46	46	56.6	56.1	45.4			
93991 Casula		UNIT 2/ 606-608 HUME HIGHWAY CASULA	RES	51	39	42	46	46	50.4	51.6	51.4			
23788 Casula		UNIT 2/ 8A DUNMORE CRESCENT CASULA	RES	51	39	42	46	46	58.8	59.3	58			
54079 Casula		UNIT 2/ 92 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.5	50.8	51			
42809 Casula		UNIT 21/ 130 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.6	49.2	49.9			
25792 Casula		UNIT 21/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	50.7	51.8	53.2			
17279 Casula		UNIT 22/ 130 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	50.2	51.6	52.4			
52002 Casula		UNIT 23/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	50.9	52.3	50.9			
51764 Casula		UNIT 24/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	49.1	49.3	50.1			
11245 Casula		UNIT 3/ 13 KENDALL DRIVE CASULA	RES	51	39	42	46	46	54.3	55.4	55.3			
7185 Casula		UNIT 3/ 14 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	57.5	57	54.8			
92670 Casula		UNIT 3/ 15-17 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	58	56.5	47.1			
98927 Casula		UNIT 3/ 154-156 LEACOCKS LANE CASULA	RES	51	39	42	46	46	49.9	52.3	52.8			
79540 Casula		UNIT 3/ 17-19 CASULA ROAD CASULA	RES	51	39	42	46	46	55.9	56.1	55.8			
31488 Casula		UNIT 3/ 19 CUSACK AVENUE CASULA	RES	51	39	42	46	46	52.2	53.3	55.1			
45576 Casula		UNIT 3/ 36 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	54.4	54.9	53.4			
36619 Casula		UNIT 3/ 453 HUME HIGHWAY CASULA	RES	51	39	42	46	46	56.5	54.9	52.6			
24266 Casula		UNIT 3/ 4-6 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	58	58.5	56.1			
48207 Casula		UNIT 3/ 5 LANG ROAD CASULA	RES	51	39	42	46	46	57.7	53	51			
37428 Casula		UNIT 3/ 6 LANG ROAD CASULA	RES	51	39	42	46	46	56.4	57.3	57.7			
66346 Casula		UNIT 3/ 79-83 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.6	54.6	54.7			
61226 Casula		UNIT 3/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	50.1	51.2	51.4			
27746 Casula		UNIT 4/ 15-17 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	55.4	56.9	55.1			
38035 Casula		UNIT 4/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.4	50.3	51.9			
27766 Casula		UNIT 4/ 17-19 CASULA ROAD CASULA	RES	51	39	42	46	46	58	58.6	56.3			
106471 Casula		UNIT 4/ 18 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.1	57.4	55.7			
90801 Casula		UNIT 4/ 27-29 DE MEYRICK AVENUE CASULA	RES	51	39	42	46	46	56.6	53.1	52.5			
58175 Casula		UNIT 4/ 31 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.3	55.2	55.3			
27654 Casula		UNIT 4/ 34 GIBSON AVENUE CASULA	RES	51	39	42	46	46	54.7	53.3	49.1			
87137 Casula		UNIT 4/ 36 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.6	52.9	44.6			
25016 Casula		UNIT 4/ 41-45 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	57.9	58.1	54.9			
31594 Casula		UNIT 4/ 8 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.6	56.6	55			
73509 Casula		UNIT 5/ 13 KENDALL DRIVE CASULA	RES	51	39	42	46	46	52.2	54.7	54.8			
26331 Casula		UNIT 5/ 15-17 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	56.1	52.7	44.4			
31162 Casula		UNIT 5/ 19-21 MARSH PARADE CASULA	RES	51	39	42	46	46	59.4	59.9	58.2			
82327 Casula		UNIT 5/ 31 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.6	53.6	43.4			
3676 Casula		UNIT 5/ 5 LANG ROAD CASULA	RES	51	39	42	46	46	58.4	59.7	57.5			
100484 Casula		UNIT 5/ 52-56 GROVE STREET CASULA	RES	51	39	42	46	46	53.5	52.3	44.9			
64476 Casula		UNIT 5/ 6 LANG ROAD CASULA	RES	51	39	42	46	46	56.4	57.9	54.7			
13991 Casula		UNIT 5/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	50.2	51.1	51.9			
44231 Casula		UNIT 6/ 1 CASULA ROAD CASULA	RES	51	39	42	46	46	57.5	57.7	58			
60771 Casula		UNIT 6/ 13 KENDALL DRIVE CASULA	RES	51	39	42	46	46	50.9	51.8	51.7			
79117 Casula		UNIT 6/ 14-18 BLACKWOOD AVENUE CASULA	RES	51	39	42	46	46	54.9	57.2	46.5			
46193 Casula		UNIT 6/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.4	50.5	52			
69153 Casula		UNIT 6/ 18 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	52.1	53.5	53.7			
39480 Casula		UNIT 6/ 18 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.3	56.3	53.6			
84452 Casula		UNIT 6/ 31 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	56.6	54.6	45.6			
103552 Casula		UNIT 6/ 39-47 KITSON WAY CASULA	RES	51	39	42	46	46	50.3	50.9	51.5			
80666 Casula		UNIT 6/ 606-608 HUME HIGHWAY CASULA	RES	51	39	42	46	46	50.5	51.2	50			
42372 Casula		UNIT 6/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	49.5	51.3	53.5			
22088 Casula		UNIT 7/ 130 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	50.2	51.6	52.3			
78538 Casula		UNIT 7/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	48.5	50	50.8			
58137 Casula		UNIT 7/ 31 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.9	55	53.1			
24394 Casula		UNIT 7/ 39-47 KITSON WAY CASULA	RES	51	39	42	46	46	48.3	49.4	49.7			
47507 Casula		UNIT 7/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	50	50.7	53.3			
92494 Casula		UNIT 7/ 92 KENDALL DRIVE CASULA	RES	51	39	42	46	46	49.7	50.9	50.9			
87278 Casula		UNIT 8/ 170 GLENFIELD ROAD CASULA	RES	51	39	42	46	46	51	52.7	53.6			
16315 Casula		UNIT 8/ 18 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	55.4	55.3	54			
46988 Casula		UNIT 8/ 26 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.1	53.8	43.3			
48495 Casula		UNIT 8/ 41-45 ASHCROFT AVENUE CASULA	RES	51	39	42	46	46	56	56.4	52.9			
41925 Casula		UNIT 8/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	47.3	49.8	51.9			
29827 Casula		UNIT 8/ 92 KENDALL DRIVE CASULA	RES	51	39	42	46	46	48.6	45.1	40.4			
31226 Casula		UNIT 9 A/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	47.5	50.5	51.7			
90116 Casula		UNIT 9 B/ 8 BOLDREWOOD AVENUE CASULA	RES	51	39	42	46	46	43.1	46.9	48.2			
98734 Casula		UNIT 9/ 14 GRAHAM AVENUE CASULA	RES	51	39	42	46	46	54	52.8	47.5			
1281 Casula		UNIT 9/ 18 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57.4	57.4	47.4			
97665 Casula		UNIT 9/ 36 HOLLAND CRESCENT CASULA	RES	51	39	42	46	46	57	55.3	53			
87245 Casula		UNIT 9/ 42B GRAHAM AVENUE CASULA	RES	51	39	42	46	46	52.8	52.2	51.4			
39769 Casula		UNIT 9/ 77-83 LEACOCKS LANE CASULA	RES	51	39	42	46	46	52.7	54.4	54.6			
76786 Glenfield		10 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	47.7	50.1	52.4			
61076 Glenfield		10 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	50.1	52.5	54.4			
58023 Glenfield		11 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	48.1	50.4	54			
77872 Glenfield		11 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	47.7	50.2	52.8			
3546 Glenfield		12 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	50.6	53.1	55.4			
92704 Glenfield		12 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	49	47.5	49.8	52.3		
19297 Glenfield		12 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.2	50.7				

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
67532	Glenfield	2 CAMBRIDGE AVENUE GLENFIELD	RES	54	42	49	49	49	50	52.8	55.6	
77345	Glenfield	2 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	50.1	52.6	55.2	
31402	Glenfield	2 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	49.5	51.9	53.2	
45356	Glenfield	20 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.7	51.3	53.4	
25652	Glenfield	21 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	48.7	50.6	53.6	
19520	Glenfield	21 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.4	50.4	53	
29579	Glenfield	22 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	50.4	52.9	55.2	
60090	Glenfield	23 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	50.6	52.1	53.7	
23176	Glenfield	23 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	47.8	50.3	52.7	
32524	Glenfield	24 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	51	54.1	57.2	
83375	Glenfield	24 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.9	51.1	53.9	
47520	Glenfield	25 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	50.4	52.9	55.2	
43183	Glenfield	27 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	50.4	52.7	54.1	
73601	Glenfield	28 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.1	50.7	53	
72372	Glenfield	29 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	49.5	52.6	55.3	
31723	Glenfield	3 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	48.3	50.5	53.4	
96073	Glenfield	3 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	49.6	51.6	53.8	
79797	Glenfield	30 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.1	50.6	53.1	
61767	Glenfield	31 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	50.3	52.9	55.5	
10712	Glenfield	32 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.1	50.7	54.2	
86419	Glenfield	33 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	49.3	50.3	50.9	
87368	Glenfield	34 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	50.6	53.3	55.8	
25285	Glenfield	35 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	47.5	49.9	52.6	
30340	Glenfield	36 FERGUSSON STREET GLENFIELD	RES	54	42	49	49	49	48.5	50.8	52.9	
39743	Glenfield	36 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	49.1	51.9	54.7	
50115	Glenfield	38 FERGUSSON STREET GLENFIELD	RES	54	42	49	49	49	50.3	51.9	52.8	
14413	Glenfield	38 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	51.5	54.1	56.7	
39773	Glenfield	4 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	49.5	50.3	52	
74123	Glenfield	4 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	49	51.2	52.6	
77667	Glenfield	4 MINJ PLACE GLENFIELD	RES	54	42	49	49	49	48.5	50.8	54.1	
49281	Glenfield	4 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	47	47.9	45.2	
32566	Glenfield	40 FERGUSSON STREET GLENFIELD	RES	54	42	49	49	49	48.8	51.3	52.8	
101483	Glenfield	40 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	50.9	54	57	
33224	Glenfield	42 FERGUSSON STREET GLENFIELD	RES	54	42	49	49	49	47.9	50.5	51.7	
34809	Glenfield	42 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.9	51.6	54.3	
25398	Glenfield	44 FERGUSSON STREET GLENFIELD	RES	54	42	49	49	49	48	50.6	51.8	
50398	Glenfield	44 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.8	51.5	54.3	
22186	Glenfield	46 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	51.3	53.4	54.2	
73000	Glenfield	48 FERGUSSON STREET GLENFIELD	RES	54	42	49	49	49	47.4	49.6	52	
21196	Glenfield	48 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	50.7	53.6	56.6	
13746	Glenfield	5 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	48.3	50.6	53.9	
53910	Glenfield	5 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	47.8	50.3	53.5	
14385	Glenfield	5 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	47.9	50.3	52.5	
25860	Glenfield	50 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	46.9	49.1	51.7	
12456	Glenfield	52 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	49.7	52.9	56.5	
56437	Glenfield	54 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	46.6	48.8	54.4	
98718	Glenfield	56 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.4	51.1	53.9	
96922	Glenfield	6 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	48.2	50.7	51.3	
27710	Glenfield	6 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	50.1	52.6	55.5	
31311	Glenfield	6 MINJ PLACE GLENFIELD	RES	54	42	49	49	49	48.9	50.9	53.4	
75213	Glenfield	6 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	51.3	52.8	53.5	
28765	Glenfield	7 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	50.2	52.7	54.1	
40342	Glenfield	7 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	50.2	52.6	54.5	
31760	Glenfield	7 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	47.6	50	52.2	
82671	Glenfield	8 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	48.3	50.8	53.8	
24342	Glenfield	8 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	47.7	50	52.7	
77957	Glenfield	8 MINJ PLACE GLENFIELD	RES	54	42	49	49	49	49.9	52.9	54.7	
28859	Glenfield	8 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	47.7	49.7	51.3	
86979	Glenfield	9 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	48	50.7	51.6	
78087	Glenfield	9 MANAM PLACE GLENFIELD	RES	54	42	49	49	49	48.5	50.5	52.9	
78958	Glenfield	9 TROBRIAND CRESCENT GLENFIELD	RES	54	42	49	49	49	48.2	49.9	52.2	
2283	Glenfield	UNIT 4/ 25 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	51.2	53.5	55.9	
5488	Glenfield	UNIT 8/ 25 GOODENOUGH STREET GLENFIELD	RES	54	42	49	49	49	51.2	52.9	55.3	
2007	Moorebank	1 BAPAUME ROAD MOOREBANK	IND	75	75	75	75	75	69.3	66.3	61.3	
6116	Moorebank	11 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	70.3	63.9	58.5	
1232	Moorebank	11A GREENHILLS AVENUE MOOREBANK	IND	75	75	75	75	75	63.3	58.3	54.2	
3116	Moorebank	12 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	72.4	64.4	59.4	
3389	Moorebank	13 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	71.2	65.3	60.1	
4444	Moorebank	14 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	69.1	63.5	58.9	
653	Moorebank	16 CHURCH ROAD MOOREBANK	IND	75	75	75	75	75	62.9	58.9	55.1	
6631	Moorebank	16 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	68.5	62.8	57.7	
2120	Moorebank	17 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	70.8	64.9	59.4	
966	Moorebank	17-23 GREENHILLS AVENUE MOOREBANK	IND	75	75	75	75	75	64.2	60.1	56.3	
4873	Moorebank	18 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	67.7	61.5	56.8	
1742	Moorebank	19 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	67.6	61.8	57	
4730	Moorebank	20 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	67.2	61.2	56.3	
2182	Moorebank	22 HELLES AVENUE MOOREBANK	IND	75	75	75	75	75	62.4	59.2	55.5	
2355	Moorebank	24 HELLES AVENUE MOOREBANK	IND	75	75	75	75	75	64.5	60.4	56.1	
641	Moorebank	25-29 GREENHILLS AVENUE MOOREBANK	IND	75	75	75	75	75	64.7	58.3	54.6	
1830	Moorebank	27 HELLES AVENUE MOOREBANK	IND	75	75	75	75	75	62	58.3	54	
1139	Moorebank	2A HELLES AVENUE MOOREBANK	IND	75	75	75	75	75	62.6	57.9	53.6	
328	Moorebank	3 HELLES AVENUE MOOREBANK	IND	75	75	75	75	75	60.4	57.4	53.9	
5786	Moorebank	3 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	73.2	65.5	59.6	
794	Moorebank	31 HEATHCOTE ROAD MOOREBANK	IND	75	75	75	75	75	64.6	60.2	56.3	
630	Moorebank	33 HEATHCOTE ROAD MOOREBANK	IND	75	75	75	75	75	59.5	56.2	52	
5646	Moorebank	35A HEATHCOTE ROAD MOOREBANK	IND	75	75	75	75	75	60	56.4	52.8	
6016	Moorebank	5 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	73.8	66.1	59.9	
1447	Moorebank	6 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	77	68.7	62.5	
765	Moorebank	7 CENTENARY AVENUE MOOREBANK	IND	75	75	75	75	75	65.1	60.8	56.8	
5019	Moorebank	7 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	71.5	64.4	58.7	
2576	Moorebank	8-10 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	72	64.4	58.7	
1500	Moorebank	9 MOOREBANK AVENUE MOOREBANK	IND	75	75	75	75	75	63.1	59.7	55.8	
2088	Moorebank	UNIT 1/ 1 YULONG CLOSE MOOREBANK	IND	75	75	75	75	75	74.6	66.1	59.2	
942	Moorebank	UNIT 2/ 14 CHURCH ROAD MOOREBANK	IND	75	75	75	75	75	62.3	60.7	55.4	
1679	Moorebank	UNIT 2/ 15-25 HELLES AVENUE MOOREBANK	IND	75	75	75	75	75	63.9	60.7	56	
2509	Moorebank	UNIT 3/ 9 GREENHILLS AVENUE MOOREBANK	IND	75	75	75	75	75	61.7	57.9	54	
310	Moorebank	UNIT 5/ 1 HELLES AVENUE MOOREBANK	IND	75	75	75	75	75	60.2	57	53.6	
93269	Wattle Grove	1 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.3	55.5	53.5	
28777	Wattle Grove	1 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	58.8	56.8	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
52291	Wattle Grove	1 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	57.7	56.4
26268	Wattle Grove	1 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	64.1	64.3	61.8
58723	Wattle Grove	1 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	61	60.4	58.5
54156	Wattle Grove	1 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	59.6	57.5	56.1
61518	Wattle Grove	1 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	64.4	62.3
29265	Wattle Grove	1 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	59.1	59.4
32171	Wattle Grove	1 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	54.7	58.1
20417	Wattle Grove	1 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	65.4	56.9
68980	Wattle Grove	1 BUNA STREET HOLSWORTHY	RES	52	42	42	47	47	52.9	53.4	54.8
20093	Wattle Grove	1 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	59.6	56.9
92534	Wattle Grove	1 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	59.9	57
49094	Wattle Grove	1 CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	53.6	51.5
12236	Wattle Grove	1 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	59.8	57.6
43559	Wattle Grove	1 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	64	65.3	65.1
13869	Wattle Grove	1 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	58	57	55.6
31360	Wattle Grove	1 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	56.5	56.8	48.6
67157	Wattle Grove	1 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	59.3	57.5
65553	Wattle Grove	1 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	61	60.9	55.9
21466	Wattle Grove	1 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	51.8	51.3
39191	Wattle Grove	1 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	65.9	68.2
2405	Wattle Grove	1 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.8	65.9	68.4
42305	Wattle Grove	1 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.2	56.8	54.6
61949	Wattle Grove	1 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	56.5	56.3	54.5
6430	Wattle Grove	1 ELDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	60.7	58.2
96812	Wattle Grove	1 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	59	48.1
87711	Wattle Grove	1 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	61.5	59
23024	Wattle Grove	1 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	61.6	51.3
43631	Wattle Grove	1 EUMUNG COURT WATTLE GROVE	RES	52	42	42	47	47	60	60.3	59.7
17153	Wattle Grove	1 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	55.9	56.1
16294	Wattle Grove	1 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	62	64.5	62.3
63523	Wattle Grove	1 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	57.2	58.1
53822	Wattle Grove	1 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	63	57.1
9463	Wattle Grove	1 HAMPTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	55.9	56.5
24997	Wattle Grove	1 HAVILAH COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	61.6	59.2
35173	Wattle Grove	1 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	54.6	55.1	54.6
39558	Wattle Grove	1 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	55.7	56.3
36659	Wattle Grove	1 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	66.7	65.4
72889	Wattle Grove	1 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	60.6	62.8
40135	Wattle Grove	1 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	60	66.3	67.1
36107	Wattle Grove	1 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	54.9	55.6	54.2
71418	Wattle Grove	1 MCKINNON CLOSE HOLSWORTHY	RES	52	42	42	47	47	53.6	55.8	55.6
19117	Wattle Grove	1 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	60.7	64.8
50193	Wattle Grove	1 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	60.6	51.1
64518	Wattle Grove	1 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	53.4	51
45253	Wattle Grove	1 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	58.2	48.6
56850	Wattle Grove	1 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	62.3	65.4
11300	Wattle Grove	1 SALAMAUJA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55	55	54.8
23214	Wattle Grove	1 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	62.2	62.4
6870	Wattle Grove	1 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	58.9	60.1
15875	Wattle Grove	1 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	66.7	67.2
29908	Wattle Grove	1 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	57.3	59.1
64131	Wattle Grove	1 TALBOT COURT WATTLE GROVE	RES	52	42	42	47	47	67.2	63.9	52.2
34319	Wattle Grove	1 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	55.7	56
33481	Wattle Grove	1 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	63.3	64.1	60.3
27409	Wattle Grove	1 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	63.3	63.1	57.3
35294	Wattle Grove	1 TRENTAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	61	61
105259	Wattle Grove	1 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	58	56.8
85298	Wattle Grove	1 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	59.3	64.4
30511	Wattle Grove	1 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.8	66.8	67.4
69929	Wattle Grove	1 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	56.9	56.7	54.7
70454	Wattle Grove	1 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.7	57.1	58.9
24490	Wattle Grove	1 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	58.2	61.1
87735	Wattle Grove	1 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	59.5	57.8
31028	Wattle Grove	10 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	58.5	54.7
58053	Wattle Grove	10 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	55.7	49.8
73983	Wattle Grove	10 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.7	54.3	53.9
26835	Wattle Grove	10 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	59.2	53.7
40486	Wattle Grove	10 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	58.7	54.4
48213	Wattle Grove	10 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.5	59.7	58.2
37068	Wattle Grove	10 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	60	57.9	46.8
82982	Wattle Grove	10 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	57.9	56.7	45.8
32625	Wattle Grove	10 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	64.4	57.9
76587	Wattle Grove	10 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.7	52.8	51.9
9502	Wattle Grove	10 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	52.8	54.2	55.3
47670	Wattle Grove	10 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	52.1	55
49368	Wattle Grove	10 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	64.4	60
33309	Wattle Grove	10 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	58.5	58.5
65867	Wattle Grove	10 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	60.7	59.2
10556	Wattle Grove	10 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.1	55.2	53.2
24475	Wattle Grove	10 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67.5	64.9	56.4
64126	Wattle Grove	10 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	64.8	65.4	56.9
34097	Wattle Grove	10 BRUNEI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.8	53.5	51.8
66928	Wattle Grove	10 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	59.1	59.8
86602	Wattle Grove	10 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	61.6	51.5
33073	Wattle Grove	10 CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	58.9	45.8
96809	Wattle Grove	10 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	58.3	55.6
97879	Wattle Grove	10 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54	56.9	57.5
51277	Wattle Grove	10 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	60.1	60.2
41906	Wattle Grove	10 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	65.4	65.5
15811	Wattle Grove	10 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	60.5	57.7
6315	Wattle Grove	10 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	60.7	57.7
24836	Wattle Grove	10 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	56.6	58.2	56
59465	Wattle Grove	10 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	59.5	55.7
66332	Wattle Grove	10 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	59	57.9
49126	Wattle Grove	10 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	58.8	55.6
33908	Wattle Grove	10 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	65.1	74.9
60444	Wattle Grove	10 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	63.1	64.3	62
63702	Wattle Grove	10 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.9	57.9	56
89424	Wattle Grove	10 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	56.2	56	54.2

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
49483	Wattle Grove	10 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.9	55.3	53.8	
86300	Wattle Grove	10 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	58.3	57.6	
37781	Wattle Grove	10 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	56.3	56.7	
30777	Wattle Grove	10 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	61.8	59.3	
70991	Wattle Grove	10 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	61.1	59.4	
100035	Wattle Grove	10 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	56.1	59.7	63.6	
74819	Wattle Grove	10 EUMUNG COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	60.7	51.2	
64346	Wattle Grove	10 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	53.5	55.9	56.3	
36317	Wattle Grove	10 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	65.3	61.5	
36345	Wattle Grove	10 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	57	60.7	60.7	
17574	Wattle Grove	10 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	59.5	57.4	
45130	Wattle Grove	10 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.6	56.7	57.3	
86745	Wattle Grove	10 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	55.2	56.5	56.3	
82623	Wattle Grove	10 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	61.9	48.1	
56171	Wattle Grove	10 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	61.9	61.6	
17309	Wattle Grove	10 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	60.9	59.5	
14233	Wattle Grove	10 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	65.8	51	
56370	Wattle Grove	10 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	56.3	55.4	
68850	Wattle Grove	10 HAVILAH COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	54.1	47.1	
85088	Wattle Grove	10 HICKORY MEWS WATTLE GROVE	RES	52	42	42	47	47	59.4	59.9	51.4	
91606	Wattle Grove	10 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.2	56.8	53.8	
62252	Wattle Grove	10 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	60.8	60.8	
21485	Wattle Grove	10 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	59.9	48.3	
44435	Wattle Grove	10 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	63.3	64.9	
102181	Wattle Grove	10 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55.9	57.2	56.9	
51141	Wattle Grove	10 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	52.4	53.7	54.7	
37709	Wattle Grove	10 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	63	62.5	
14608	Wattle Grove	10 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	53	54	54.7	
44374	Wattle Grove	10 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	56.8	57.2	
12986	Wattle Grove	10 KIRKHAM MEWS WATTLE GROVE	RES	52	42	42	47	47	57	61.8	63.3	
48095	Wattle Grove	10 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	57.1	56.7	53.9	
98447	Wattle Grove	10 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	56.2	53.8	53.1	
25665	Wattle Grove	10 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	62	63	
60871	Wattle Grove	10 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	64	62.2	57.4	
26967	Wattle Grove	10 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	59	59.8	
76177	Wattle Grove	10 LINIFOLIA MEWS WATTLE GROVE	RES	52	42	42	47	47	59.7	59.6	58.2	
43043	Wattle Grove	10 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	67.9	64.7	60	
25084	Wattle Grove	10 LYNDHURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	64	66.8	
80277	Wattle Grove	10 MCKINNON CLOSE HOLSWORTHY	RES	52	42	42	47	47	53.4	53.3	52.8	
21747	Wattle Grove	10 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	60.3	63.2	
7388	Wattle Grove	10 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	59.8	59.8	
98551	Wattle Grove	10 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.9	53.8	52.7	
94801	Wattle Grove	10 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56.8	56.7	54	
52497	Wattle Grove	10 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	56.3	57.1	
41880	Wattle Grove	10 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.8	55.2	55.5	
41891	Wattle Grove	10 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	58.4	58.4	
64322	Wattle Grove	10 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	61.6	60.8	
31797	Wattle Grove	10 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	61.3	59.3	
59935	Wattle Grove	10 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	62.5	64.6	
89744	Wattle Grove	10 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.4	55.7	53.1	
13408	Wattle Grove	10 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	62.1	70.3	
64118	Wattle Grove	10 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	62.2	62.9	
46849	Wattle Grove	10 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	62.9	65.6	
13211	Wattle Grove	10 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	57.8	58.6	
50839	Wattle Grove	10 TALBOT COURT WATTLE GROVE	RES	52	42	42	47	47	68.3	57.7	51.1	
87188	Wattle Grove	10 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	58.8	58.8	
56741	Wattle Grove	10 TOCAL COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	62.5	54.8	
54514	Wattle Grove	10 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	60.5	59.6	
10609	Wattle Grove	10 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	58.9	56	
60516	Wattle Grove	10 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	54.8	54.7	
52204	Wattle Grove	10 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	57.3	55.6	
59226	Wattle Grove	10 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	62.7	59.3	
28726	Wattle Grove	10 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	58.9	59.8	
44379	Wattle Grove	10 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	61	66.5	68.5	
57755	Wattle Grove	10 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	57.9	55.3	54.9	
95112	Wattle Grove	10 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.9	58.7	59.3	
12934	Wattle Grove	10 WOLLEMI COURT WATTLE GROVE	RES	52	42	42	47	47	55.9	57.6	58.4	
63816	Wattle Grove	10 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	65	56.2	
27970	Wattle Grove	10 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	62.7	63	
53456	Wattle Grove	10 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	64	71	
56628	Wattle Grove	100 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	58.4	59.4	60.9	
30285	Wattle Grove	100 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.5	54.6	53.6	
37521	Wattle Grove	101 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.8	55.8	54.2	
46371	Wattle Grove	101 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	53.8	54	54	
21565	Wattle Grove	102 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	60.1	62.9	63.1	
79034	Wattle Grove	103 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.9	56.2	55.9	
30490	Wattle Grove	103 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.6	55.6	55.4	
47333	Wattle Grove	105 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.9	55.3	54.8	
55104	Wattle Grove	105-107 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.9	57.9	56.3	
55919	Wattle Grove	106 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	60.6	62.8	62.9	
62636	Wattle Grove	107 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.6	56.5	56.6	
63055	Wattle Grove	108 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	58	58.6	59.9	
19875	Wattle Grove	108 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.3	58	58.5	
82445	Wattle Grove	109 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.1	56	55.9	
97427	Wattle Grove	109 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	53.3	49.8	48.7	
32147	Wattle Grove	109A BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.1	54.7	52.4	
59776	Wattle Grove	109A DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58	58	55.4	
9237	Wattle Grove	11 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	59.8	58.6	
88094	Wattle Grove	11 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	57.5	46.4	
36280	Wattle Grove	11 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.7	56.3	53.3	
34358	Wattle Grove	11 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	59.2	50.6	
98901	Wattle Grove	11 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	53.8	54.4	
44755	Wattle Grove	11 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.5	61	58.8	
17118	Wattle Grove	11 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	56	59.2	58.2	
94424	Wattle Grove	11 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	61.4	60.9	59.3	
61244	Wattle Grove	11 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	59	58.8	57.8	
53405	Wattle Grove	11 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	66.5	66.8	60.4	
34461	Wattle Grove	11 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.3	53.9	53	
20143	Wattle Grove	11 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	64	65.8	58.3	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
43798	Wattle Grove	11 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	59.7	48.4
45880	Wattle Grove	11 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	59.5	52.7
30072	Wattle Grove	11 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.1	54.4	52.8
53341	Wattle Grove	11 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	65.5	65.5	61.7
37904	Wattle Grove	11 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	66	60.1
46304	Wattle Grove	11 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	56	57.2	54.6
44941	Wattle Grove	11 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	62.4	58
44523	Wattle Grove	11 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	60.7	60
37579	Wattle Grove	11 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.9	57.4	58.1
40252	Wattle Grove	11 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	61	63.7
26603	Wattle Grove	11 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	66.7	66.8
39107	Wattle Grove	11 CLIVEDEN COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	58.3	58.9
63223	Wattle Grove	11 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	59.9	56.5
16890	Wattle Grove	11 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	59.5	57.9
88104	Wattle Grove	11 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	56.1	58.7	59.1
19415	Wattle Grove	11 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	56.1	53.7
40974	Wattle Grove	11 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	59.2	54.4
19420	Wattle Grove	11 CORYTON COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	66	71.4
34253	Wattle Grove	11 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.1	65.9	66.1
9312	Wattle Grove	11 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.3	56.8	55.6
23516	Wattle Grove	11 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	56	55.8	55.3
73334	Wattle Grove	11 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.5	58	56.3
21667	Wattle Grove	11 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	56.8	54.9
65330	Wattle Grove	11 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	61	59.6
8880	Wattle Grove	11 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	55	56.1	56.6
86474	Wattle Grove	11 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	66.5	60.4
54681	Wattle Grove	11 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	58.2	58.6
29962	Wattle Grove	11 FERLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	58.5	57
9249	Wattle Grove	11 FINSCHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	52.8	53.8	54.4
18618	Wattle Grove	11 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	58.1	57.9
19193	Wattle Grove	11 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	57.3	56.9	55.3
12270	Wattle Grove	11 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	62.6	58.8
39517	Wattle Grove	11 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	54.4	57.7
47784	Wattle Grove	11 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	61.1	58.9
42920	Wattle Grove	11 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.8	66.3	62.1
17751	Wattle Grove	11 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	58.3	59.3
75370	Wattle Grove	11 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.3	55.3	53.5
57810	Wattle Grove	11 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	59.6	60.3
97327	Wattle Grove	11 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	57.9	57.8
46754	Wattle Grove	11 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59	63.4	66.3
18899	Wattle Grove	11 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	56.7	58.4
24527	Wattle Grove	11 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	52.8	53.3	53.8
12386	Wattle Grove	11 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	61.5	61.3
91106	Wattle Grove	11 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.7	53.7	53.7
54451	Wattle Grove	11 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	56	56.5	58.4
78230	Wattle Grove	11 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	55.6	55	53.7
21203	Wattle Grove	11 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	56.2	56.2	55.2
101264	Wattle Grove	11 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	64.1	61.7
78219	Wattle Grove	11 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	65.5	68.3	64.2
97484	Wattle Grove	11 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	66.7	65	60.9
67100	Wattle Grove	11 LYNDRHURST COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	63.6	67
66418	Wattle Grove	11 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	55.9	57.7	57.9
85777	Wattle Grove	11 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.8	60.2	52.6
86991	Wattle Grove	11 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	60.1	65.8
42947	Wattle Grove	11 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	56.6	57.2
75588	Wattle Grove	11 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	57	56.9	56.4
60820	Wattle Grove	11 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	58.9	58.4
87545	Wattle Grove	11 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.7	55	56.4
70852	Wattle Grove	11 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	61	59.5
45945	Wattle Grove	11 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	59.8	55.7
85917	Wattle Grove	11 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	60	57.5
4164	Wattle Grove	11 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	66	63.6	57.7
49354	Wattle Grove	11 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	61.7	63
74380	Wattle Grove	11 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.3	53.3	52.9
14676	Wattle Grove	11 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.9	54.7	53.1
65574	Wattle Grove	11 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	54.9	60.3	63.4
26169	Wattle Grove	11 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	60.8	60.4
54799	Wattle Grove	11 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	64	66.2
28214	Wattle Grove	11 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	58	60.5	60.5
40114	Wattle Grove	11 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	58.3	58.5
17270	Wattle Grove	11 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	61.8	61.8
63436	Wattle Grove	11 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	60.4	58.2
50805	Wattle Grove	11 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	62.1	62.3
4970	Wattle Grove	11 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	57.2	55.4
50667	Wattle Grove	11 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	60.6	65.5
80376	Wattle Grove	11 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	64.5	62.5	59.4
53314	Wattle Grove	11 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	61.7	65.7
25420	Wattle Grove	11 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	55.7	55	54.1
14163	Wattle Grove	11 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.3	56.4	58.1
37389	Wattle Grove	11 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	57.7	59.3
37161	Wattle Grove	11 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	64.8	62.6	54.8
93710	Wattle Grove	11 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	63.8	67.4
41552	Wattle Grove	11 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	63.4	69.3
20225	Wattle Grove	110 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.3	58.6	59.4
46671	Wattle Grove	110 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.7	59.3	59.7
24067	Wattle Grove	111 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	51.9	52	53.5
48010	Wattle Grove	112 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.2	58.7	59.5
33855	Wattle Grove	112 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.8	59.5	59.8
99771	Wattle Grove	113 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	53.4	55.4	55.6
28891	Wattle Grove	114 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.2	58.7	60
94256	Wattle Grove	114 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56	59.6	60.2
93309	Wattle Grove	115 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.9	56.2	53.8
48412	Wattle Grove	116 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.1	58.6	60
10364	Wattle Grove	116 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.5	56.8	61
54022	Wattle Grove	117 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.3	55.4	55.8
22623	Wattle Grove	118 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56	58.5	59.3
66462	Wattle Grove	118 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	59.3	62.3	62.6
63365	Wattle Grove	119 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.7	55.9	56.1
89714	Wattle Grove	11A SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	52	53.5	53.4

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
27124	Wattle Grove	12 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	61	58.4	56.4	
89690	Wattle Grove	12 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	51.6	47.9	
86839	Wattle Grove	12 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	55.7	53.2	
43641	Wattle Grove	12 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	58.3	58	
72912	Wattle Grove	12 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	57.2	55.9	
40711	Wattle Grove	12 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	58	58	46.5	
37243	Wattle Grove	12 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	57.3	56.4	57.4	
83246	Wattle Grove	12 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	64.1	60.7	
99081	Wattle Grove	12 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.5	55.6	50.3	
49646	Wattle Grove	12 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	52.7	54.1	54.8	
36664	Wattle Grove	12 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	52.9	57.7	
25797	Wattle Grove	12 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	63.2	65.6	60.5	
92048	Wattle Grove	12 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	58	57	
22239	Wattle Grove	12 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	59.9	59.7	
93522	Wattle Grove	12 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56.7	56.6	55.3	
46235	Wattle Grove	12 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67.5	62.6	57.4	
19014	Wattle Grove	12 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	65	66.3	51.7	
8795	Wattle Grove	12 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	60	58.9	
32371	Wattle Grove	12 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.2	56.1	56.5	
78482	Wattle Grove	12 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	60.3	65	
41013	Wattle Grove	12 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	64.8	66.4	
47197	Wattle Grove	12 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64.8	60.5	57.2	
32033	Wattle Grove	12 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	61.6	57.8	
33289	Wattle Grove	12 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	57.2	58.1	59.7	
7825	Wattle Grove	12 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	59.7	56.4	
13884	Wattle Grove	12 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	59.4	58	
48179	Wattle Grove	12 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	59.1	55.8	
85165	Wattle Grove	12 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	66.8	71.9	
53394	Wattle Grove	12 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57	58.1	58.2	
95317	Wattle Grove	12 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	56.2	56	55.5	
102936	Wattle Grove	12 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.5	55.2	48.8	
70984	Wattle Grove	12 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	58.3	56.6	
49897	Wattle Grove	12 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	57.1	52.9	
38618	Wattle Grove	12 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	63.9	60.9	
19141	Wattle Grove	12 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64	60.4	59.4	
62401	Wattle Grove	12 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	58.5	61.9	59.8	
31891	Wattle Grove	12 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	55.9	57.8	58.3	
95717	Wattle Grove	12 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	65.6	62.2	
18492	Wattle Grove	12 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	59.7	59.8	
12430	Wattle Grove	12 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	59.8	52.7	
36812	Wattle Grove	12 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	56.3	57.9	
108307	Wattle Grove	12 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	56.8	56.6	55.9	
48956	Wattle Grove	12 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	61.4	62.4	62.1	
23380	Wattle Grove	12 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	61.7	61.1	
55304	Wattle Grove	12 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	58.1	58	
30901	Wattle Grove	12 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.1	65.5	51.8	
26734	Wattle Grove	12 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	58.1	58.4	
40785	Wattle Grove	12 HICKORY MEWS WATTLE GROVE	RES	52	42	42	47	47	56.5	56.5	56.3	
107506	Wattle Grove	12 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.2	56.2	53.1	
66637	Wattle Grove	12 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	59	59.6	
18138	Wattle Grove	12 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	60.1	48.1	
16391	Wattle Grove	12 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	60	63.1	65.1	
53874	Wattle Grove	12 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	56.6	58.6	
58288	Wattle Grove	12 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	52.4	53.8	54.2	
93259	Wattle Grove	12 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	60.2	59.7	
48002	Wattle Grove	12 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	48.3	49.1	50.4	
98215	Wattle Grove	12 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	57.6	60.9	
97840	Wattle Grove	12 KIRKHAM MEWS WATTLE GROVE	RES	52	42	42	47	47	56.5	61.1	62.5	
50923	Wattle Grove	12 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.3	55.8	54.3	
31057	Wattle Grove	12 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	62.1	61.7	
42507	Wattle Grove	12 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	66.8	69.2	
44826	Wattle Grove	12 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	59	61.9	
88534	Wattle Grove	12 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	66.6	64.4	60.8	
48900	Wattle Grove	12 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	63.5	67.4	
35943	Wattle Grove	12 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	53.7	53.8	54	
8386	Wattle Grove	12 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	59.7	53.7	
86884	Wattle Grove	12 MCKINNON CLOSE HOLSWORTHY	RES	52	42	42	47	47	53.4	53.5	52.9	
53941	Wattle Grove	12 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	61.6	60.9	
23333	Wattle Grove	12 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.5	56.3	56.1	
99909	Wattle Grove	12 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	57.9	58.3	57.1	
52964	Wattle Grove	12 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	56	56.6	57.3	
78398	Wattle Grove	12 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.8	55.3	54.9	
35391	Wattle Grove	12 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	58.2	60.1	
46452	Wattle Grove	12 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	58.8	58.6	
29866	Wattle Grove	12 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	61.1	62.2	
69389	Wattle Grove	12 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.4	56	55.3	
31044	Wattle Grove	12 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	59	61.1	64.6	
8996	Wattle Grove	12 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	57	59.3	
32415	Wattle Grove	12 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	65.6	66.3	
63068	Wattle Grove	12 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	56	59	58.8	
42873	Wattle Grove	12 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	60.5	59.8	
17701	Wattle Grove	12 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	58.8	56.5	
80344	Wattle Grove	12 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	59.4	65.2	
78337	Wattle Grove	12 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	57.1	55.7	
66487	Wattle Grove	12 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	60	62.9	
44345	Wattle Grove	12 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	62.5	60.7	
30993	Wattle Grove	12 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	61	65.9	
60796	Wattle Grove	12 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	59.8	64.7	69.1	
9394	Wattle Grove	12 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.6	56.1	57.9	
39597	Wattle Grove	12 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	57.7	58.2	
83680	Wattle Grove	12 WOLLEMI COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	57.1	57.1	
87501	Wattle Grove	12 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	64.7	63.2	
23588	Wattle Grove	12 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	61.3	57.4	
89920	Wattle Grove	12 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	64.4	71.3	
66683	Wattle Grove	120 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	57.6	57.7	54	
41326	Wattle Grove	120 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.8	59.2	59.2	
49621	Wattle Grove	121 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.8	55.8	51.3	
30012	Wattle Grove	122 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	57	58.4	58.8	
32807	Wattle Grove	124 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.5	57.7	58.2	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
24458	Wattle Grove	126 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	55.8	58.6	59.8	
57057	Wattle Grove	128 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	55.7	58.3	59.9	
97788	Wattle Grove	12A LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	56.6	53	51.1	
88355	Wattle Grove	12A WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	57.8	57.6	53.9	
15890	Wattle Grove	13 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	58.2	56.2	
81091	Wattle Grove	13 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	56.1	56.4	
94146	Wattle Grove	13 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	55.4	56	55.4	
25073	Wattle Grove	13 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	56.7	49.8	
92385	Wattle Grove	13 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	60	59.1	56.2	
33439	Wattle Grove	13 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	59.1	58.5	
33701	Wattle Grove	13 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	61.3	59.3	
30429	Wattle Grove	13 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	58	57.9	53.4	
50254	Wattle Grove	13 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	65.8	66.2	60.5	
20342	Wattle Grove	13 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	63.3	67.8	59.3	
73787	Wattle Grove	13 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	59.3	48.5	
51678	Wattle Grove	13 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	60.9	55.6	
38678	Wattle Grove	13 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55	54.3	52.8	
23108	Wattle Grove	13 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	65.9	68	62.9	
44187	Wattle Grove	13 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	65.4	59.4	
60280	Wattle Grove	13 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	60.8	59.5	
50672	Wattle Grove	13 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	67.4	63.3	58	
41845	Wattle Grove	13 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	52.1	53	56.4	
17559	Wattle Grove	13 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	61.6	62	
52025	Wattle Grove	13 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	65.1	67.1	63.8	
89188	Wattle Grove	13 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	59.9	56.6	
41971	Wattle Grove	13 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	58.7	58.2	
55132	Wattle Grove	13 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	56.2	58.6	58.7	
15254	Wattle Grove	13 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	67.5	69.4	
59879	Wattle Grove	13 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.5	61.7	56.6	
56314	Wattle Grove	13 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56	56	53.6	
20646	Wattle Grove	13 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.8	57.9	55.9	
19891	Wattle Grove	13 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	57.4	55.2	
50212	Wattle Grove	13 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	67.5	61.5	57.7	
91557	Wattle Grove	13 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	56.8	56.2	
49754	Wattle Grove	13 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	67.6	60.6	
14762	Wattle Grove	13 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	52.7	53.1	52.2	
90672	Wattle Grove	13 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	60.9	53.4	
91340	Wattle Grove	13 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	54.3	55.1	55.2	
78298	Wattle Grove	13 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	57.4	57.6	
66320	Wattle Grove	13 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	54.7	53.9	53.6	
36544	Wattle Grove	13 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	64	60.4	
55363	Wattle Grove	13 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	61	62.7	60.4	
37355	Wattle Grove	13 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	58.4	57	
35090	Wattle Grove	13 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65	62.4	58.4	
102283	Wattle Grove	13 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.6	56.3	56.1	
11511	Wattle Grove	13 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	59.9	58.5	
19567	Wattle Grove	13 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	52.5	52.4	52.2	
59345	Wattle Grove	13 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59	63.6	64.2	
14597	Wattle Grove	13 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	56.8	57.4	
20185	Wattle Grove	13 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	52.5	54.9	56.2	
41069	Wattle Grove	13 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	62.2	59.5	
85764	Wattle Grove	13 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.6	53.8	54	
48681	Wattle Grove	13 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	54.2	56.5	58.5	
87999	Wattle Grove	13 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	57.2	57	54	
30961	Wattle Grove	13 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.3	55.1	55.3	
61161	Wattle Grove	13 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	62.4	55.5	
49773	Wattle Grove	13 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	66	68.2	67.6	
46031	Wattle Grove	13 LYNDHURST COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	64.9	70.4	
12627	Wattle Grove	13 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	54.2	54.3	53.2	
74751	Wattle Grove	13 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.2	59	53.2	
34605	Wattle Grove	13 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	61	63.9	
40394	Wattle Grove	13 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	57.8	57.7	
62755	Wattle Grove	13 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	54.4	54.4	53.8	
59846	Wattle Grove	13 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	56.5	52.5	
69191	Wattle Grove	13 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.8	57	57.3	
45473	Wattle Grove	13 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	58.6	59.5	
14268	Wattle Grove	13 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	59.7	58.5	
17538	Wattle Grove	13 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	67.4	62.1	48	
33745	Wattle Grove	13 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	61.5	63.6	
31807	Wattle Grove	13 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.1	55.4	54.9	
75670	Wattle Grove	13 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.4	56.2	54.4	
63844	Wattle Grove	13 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	61.3	66	
95738	Wattle Grove	13 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	65.2	68.3	
18840	Wattle Grove	13 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	58.4	58.6	
74013	Wattle Grove	13 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	56.2	56.4	
36532	Wattle Grove	13 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	64.4	59.8	
66720	Wattle Grove	13 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	61	59.5	58.2	
94293	Wattle Grove	13 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59	60.9	64	
49790	Wattle Grove	13 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	57.2	55.6	
52726	Wattle Grove	13 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	60.4	65.3	
23006	Wattle Grove	13 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	66	59.7	47.5	
26644	Wattle Grove	13 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	59.9	56.6	
24517	Wattle Grove	13 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58.7	63.7	66.2	
93166	Wattle Grove	13 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	56.8	56.6	54	
29082	Wattle Grove	13 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.6	56.3	57	
22293	Wattle Grove	13 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	57	59.6	
48226	Wattle Grove	13 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	63.7	55.8	
21475	Wattle Grove	13 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	62.7	70.4	
48251	Wattle Grove	13 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	63.3	70.4	
38270	Wattle Grove	130 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	58.2	60.9	63.4	
24745	Wattle Grove	13-15 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	58.8	56.7	
78943	Wattle Grove	132 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.6	58.9	56.9	
80865	Wattle Grove	134 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.8	56.7	55.3	
69420	Wattle Grove	136 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	55.9	58.8	62.5	
83548	Wattle Grove	138 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	57.3	57.4	55.5	
47140	Wattle Grove	14 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	58.6	57.1	
17500	Wattle Grove	14 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.3	55.6	54.8	
87174	Wattle Grove	14 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	53.7	52.2	
77543	Wattle Grove	14 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	58.8	53.3	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 1	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
104251	Wattle Grove	14 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	58.6	58.4	56.8
62543	Wattle Grove	14 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	62.4	56
41642	Wattle Grove	14 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.2	55.8	55.4
31075	Wattle Grove	14 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	56.7	56.2
14078	Wattle Grove	14 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	63.5	61.6
18992	Wattle Grove	14 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	59	59.7
40959	Wattle Grove	14 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.8	56.2	53.7
97568	Wattle Grove	14 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67.1	66.7	62.8
58976	Wattle Grove	14 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	65.6	65.8	56.1
50430	Wattle Grove	14 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	59.9	60
89788	Wattle Grove	14 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	52.7	56.4	56.9
71466	Wattle Grove	14 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	59.7	56.5
34418	Wattle Grove	14 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	64.6	66.9
30149	Wattle Grove	14 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	65.9	63.2	58.6
57561	Wattle Grove	14 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	55.9	56.4	56.4
28535	Wattle Grove	14 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	54.5	53.6
93734	Wattle Grove	14 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	58.6	56
79097	Wattle Grove	14 CORYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	67.5	74.4
10790	Wattle Grove	14 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	49.1	50.5	53.3
11974	Wattle Grove	14 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	56.4	53.7
14237	Wattle Grove	14 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	53.9	53.5
91494	Wattle Grove	14 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	58.6	52.7
35756	Wattle Grove	14 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	61.2	58.6
52417	Wattle Grove	14 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.2	62.5	58.4
54630	Wattle Grove	14 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	58.3	59.9	54.3
25218	Wattle Grove	14 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	65.1	67.9	66.1
25527	Wattle Grove	14 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	60	60.2
16811	Wattle Grove	14 FERLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	58.2	52
97865	Wattle Grove	14 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	49.8	51.3	52.6
46883	Wattle Grove	14 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	56.9	59.6
13204	Wattle Grove	14 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	56.9	56.6	55.9
23949	Wattle Grove	14 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	62.5	58.1
91143	Wattle Grove	14 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	51.5	57.4
95335	Wattle Grove	14 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	52.4	56
88013	Wattle Grove	14 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.2	65.1	54.7
15340	Wattle Grove	14 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	54.3	56.6	56.9
10956	Wattle Grove	14 HICKORY MEWS WATTLE GROVE	RES	52	42	42	47	47	56.8	57.4	52.4
80986	Wattle Grove	14 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.3	53.9	54
38078	Wattle Grove	14 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	60	61.9	59.8
20974	Wattle Grove	14 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	57	51.7
62045	Wattle Grove	14 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	62.4	67.1
104314	Wattle Grove	14 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	56.5	52.4
63740	Wattle Grove	14 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	52.3	53.6	54.6
23075	Wattle Grove	14 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	60.5	60.6
49489	Wattle Grove	14 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.6	55.1	55.7
18031	Wattle Grove	14 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	55.3	54.5	53.5
82209	Wattle Grove	14 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	57.3	57.4
81833	Wattle Grove	14 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	59.4	53.3
26470	Wattle Grove	14 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	60	62	61.7
64873	Wattle Grove	14 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	52.9	54.8	54.4
18418	Wattle Grove	14 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67	59.3	55.2
15752	Wattle Grove	14 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	61.5	61.6
59924	Wattle Grove	14 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55	56.3	55.8
104228	Wattle Grove	14 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56.7	56.1	55.5
91515	Wattle Grove	14 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	57.6	57.9
102961	Wattle Grove	14 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.7	55.3	54.8
16683	Wattle Grove	14 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	59.6	58.6
51034	Wattle Grove	14 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	60.3	60.6
10811	Wattle Grove	14 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	57.5	55.2
31926	Wattle Grove	14 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	60.3	63.9
42489	Wattle Grove	14 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	54.2	54.5	53
46071	Wattle Grove	14 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	63.9	70.4
27005	Wattle Grove	14 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	63.5	66.2
29064	Wattle Grove	14 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	59.2	59
20896	Wattle Grove	14 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	60.3	60.3
28793	Wattle Grove	14 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	58.8	56.5
30117	Wattle Grove	14 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	59.6	63.1
13752	Wattle Grove	14 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	58	57.7	54.9
16357	Wattle Grove	14 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	62.7	65.9
32245	Wattle Grove	14 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	64.5	61.7	58
58262	Wattle Grove	14 WALLLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	59	63	67.3
28456	Wattle Grove	14 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	59.7	64.6	69.3
27227	Wattle Grove	14 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.3	56	56.9
61733	Wattle Grove	14 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	59.2	57.8
13816	Wattle Grove	14 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	65	57.1
57922	Wattle Grove	14 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	62.8	68.2
37949	Wattle Grove	14 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	63.9	71.5
94520	Wattle Grove	140 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.1	59.1	63
77570	Wattle Grove	142 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.2	59.1	62.9
32357	Wattle Grove	143 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	58.7	61.3	62.2
95477	Wattle Grove	144 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	57.3	59.1	59.5
67050	Wattle Grove	145 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.1	59.1	59.7
39276	Wattle Grove	146 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.2	60.1	63.3
18705	Wattle Grove	147 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	58	58.6	57.4
54036	Wattle Grove	148 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.7	59.5	63.4
44963	Wattle Grove	149 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.5	57.4	55.2
102926	Wattle Grove	15 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	62.5	61.7	57.8
87725	Wattle Grove	15 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	53.4	53.4
98711	Wattle Grove	15 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.8	55.7	54.2
75696	Wattle Grove	15 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	62	59.5	46.3
25214	Wattle Grove	15 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.1	62	59.1
13876	Wattle Grove	15 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	58.5	57.8
91829	Wattle Grove	15 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	61	59.4
37989	Wattle Grove	15 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	67.5	66.6	49.8
83673	Wattle Grove	15 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	51.4	53.5	53.2
37590	Wattle Grove	15 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	66.9	58.7
71326	Wattle Grove	15 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	56.1	51.5
37391	Wattle Grove	15 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	61.5	58.7
60564	Wattle Grove	15 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.2	55.7	54.3

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 1	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
64310	Wattle Grove	15 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	68.5	68.5	62.1
32883	Wattle Grove	15 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	65.4	63.9	57.8
94362	Wattle Grove	15 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	60	59.6	58.9
68384	Wattle Grove	15 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	65.4	61.6	59
33215	Wattle Grove	15 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58	60.8	62.6
27804	Wattle Grove	15 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	67.1	64.1
26202	Wattle Grove	15 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	63	59.9	56.7
19121	Wattle Grove	15 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	58.9	59.2	58.4
86695	Wattle Grove	15 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	55.7	54.1
36937	Wattle Grove	15 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	67.8	70.1
10534	Wattle Grove	15 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.1	63.9	62.5
23873	Wattle Grove	15 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.8	57.8	57.9
105274	Wattle Grove	15 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.8	55.6	53.3
43315	Wattle Grove	15 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	56.9	52.5
47143	Wattle Grove	15 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	61.4	58.3
13594	Wattle Grove	15 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	64.8	66.5	61.9
53037	Wattle Grove	15 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	55.7	55.4	57.6
82831	Wattle Grove	15 FERLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	61.7	50.3
79844	Wattle Grove	15 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	55.5	55.8	56.2
39460	Wattle Grove	15 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	58.1	61.4
21617	Wattle Grove	15 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	56.2	53.9	53.4
98256	Wattle Grove	15 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	64.7	64.6	62.9
24572	Wattle Grove	15 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	60.5	59.9
86930	Wattle Grove	15 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	66	59.8
45372	Wattle Grove	15 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.9	55.2	53.3
53014	Wattle Grove	15 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	59.3	53
101666	Wattle Grove	15 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	58.1	60.3
66262	Wattle Grove	15 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	63.6	65.8
8433	Wattle Grove	15 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	56.9	57.8
55678	Wattle Grove	15 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	52.2	53.1	54.5
73089	Wattle Grove	15 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	62.2	61.6
39222	Wattle Grove	15 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.4	53.6	50.8
19652	Wattle Grove	15 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	54.7	56.4	58.6
107359	Wattle Grove	15 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	56.1	52.4	49.8
32293	Wattle Grove	15 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.6	53.8	55.2
9059	Wattle Grove	15 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	62.1	54.3
10445	Wattle Grove	15 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	65.8	70.2	68.1
19804	Wattle Grove	15 LYNDHURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	65.7	70.5
34700	Wattle Grove	15 MADANG STREET HOLSWORTHY	RES	52	42	42	47	47	52.1	53.2	53.4
64776	Wattle Grove	15 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	54.3	56	54.5
40631	Wattle Grove	15 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	68	62.2	52.5
63429	Wattle Grove	15 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	56	59.6	62.8
38061	Wattle Grove	15 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	60.1	57.4
57251	Wattle Grove	15 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	54.3	54.3	53.7
51196	Wattle Grove	15 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	58.8	59.6
94930	Wattle Grove	15 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.5	54.5	54
9820	Wattle Grove	15 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57	60.1	59.3
59203	Wattle Grove	15 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	55.7	53.7
12684	Wattle Grove	15 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	60.3	64.8
53674	Wattle Grove	15 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.2	54.9	54.6
68392	Wattle Grove	15 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	55.8	53.3
56882	Wattle Grove	15 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	62.3	64.4
15505	Wattle Grove	15 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	62.6	65.6
59643	Wattle Grove	15 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	59.5	58
90827	Wattle Grove	15 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	64.5	64.1
22950	Wattle Grove	15 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	61.2	56.9
87666	Wattle Grove	15 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	61.9	65.3
44199	Wattle Grove	15 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	53.8	56.2	54.4
86461	Wattle Grove	15 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	59.7	65.6
28666	Wattle Grove	15 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	61.5	66.1
67131	Wattle Grove	15 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	60	64.8	66
93874	Wattle Grove	15 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	57.6	57.4	56.5
58371	Wattle Grove	15 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	56.4	57.3
16774	Wattle Grove	15 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.2	55.8	55.5
54264	Wattle Grove	15 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	65.1	63	60.5
86649	Wattle Grove	15 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	64.3	71.5
41932	Wattle Grove	15 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	63.7	72.6
34410	Wattle Grove	150 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.4	60.8	63.6
31827	Wattle Grove	151 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.1	54.2	53.5
50393	Wattle Grove	152 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.9	59.8	63.7
70552	Wattle Grove	153 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	58.1	59.2	59.5
35887	Wattle Grove	154 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	57.4	62	64.2
82185	Wattle Grove	155 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	57.8	59	62.4
9990	Wattle Grove	157 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	56.1	60.7	63.2
75280	Wattle Grove	159 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	55.9	60.1	63.7
38499	Wattle Grove	16 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	62	60.8	57.6
79239	Wattle Grove	16 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	57.6	54.9
101341	Wattle Grove	16 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.4	57.3	56.1
69002	Wattle Grove	16 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	53.7	51.4
35310	Wattle Grove	16 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	62	62	53.5
66977	Wattle Grove	16 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.5	54	53.1
89365	Wattle Grove	16 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	53	56	56
52755	Wattle Grove	16 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62	64.2	62
63195	Wattle Grove	16 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	58.1	48.2
37599	Wattle Grove	16 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.2	56.9	52.6
40324	Wattle Grove	16 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	66.8	66.5	62.3
81744	Wattle Grove	16 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	65.5	66	52.1
40210	Wattle Grove	16 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	60.3	59.6
8732	Wattle Grove	16 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	53	46.8	50.8
45013	Wattle Grove	16 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	58.8	62.4
32391	Wattle Grove	16 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.4	64.1	58.7
24320	Wattle Grove	16 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	65.1	60.9	57.8
99939	Wattle Grove	16 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	58.7	60.4	58.7
96386	Wattle Grove	16 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	57.3	54.3
75009	Wattle Grove	16 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	58.1	56
28459	Wattle Grove	16 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.1	67	72.6
32160	Wattle Grove	16 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.2	55.4	55.5
104274	Wattle Grove	16 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.6	54.6	51.8
20597	Wattle Grove	16 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	60.3	56.9

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
51044	Wattle Grove	16 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	59.3	58	
13112	Wattle Grove	16 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	60.8	58.3	
60858	Wattle Grove	16 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.6	61.9	58.6	
83423	Wattle Grove	16 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	58.3	61.8	56	
61818	Wattle Grove	16 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	63.3	66.3	59.2	
17833	Wattle Grove	16 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	58.4	58.1	
39817	Wattle Grove	16 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	60.8	56.6	
76201	Wattle Grove	16 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	52.5	52.6	45.6	
94281	Wattle Grove	16 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	57.2	58.9	
63382	Wattle Grove	16 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	55.7	55.8	55.7	
29481	Wattle Grove	16 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	62	60.4	
29676	Wattle Grove	16 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	60	53.7	58.3	
9595	Wattle Grove	16 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	62	54.8	
74743	Wattle Grove	16 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	56	56.6	
88752	Wattle Grove	16 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.1	54.4	54.3	
31235	Wattle Grove	16 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	59.5	62.5	
25096	Wattle Grove	16 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	59.3	59.2	
16741	Wattle Grove	16 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	62.6	65.1	
69491	Wattle Grove	16 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	56.8	58.5	
39154	Wattle Grove	16 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	52.3	53.6	54.2	
22752	Wattle Grove	16 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	55.2	55.2	
9645	Wattle Grove	16 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	55.5	54.9	53.9	
13128	Wattle Grove	16 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.9	54.7	55	
12521	Wattle Grove	16 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	61.5	60.6	
15432	Wattle Grove	16 LYNDHURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	63.6	66.8	
24376	Wattle Grove	16 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.4	62.8	58.3	
45411	Wattle Grove	16 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	63.1	62.4	
70409	Wattle Grove	16 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.8	51.9	51.7	
74626	Wattle Grove	16 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	54.1	53.3	53.1	
10631	Wattle Grove	16 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	56.8	56.3	
59121	Wattle Grove	16 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.5	55.6	54.8	
61026	Wattle Grove	16 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	59.5	56.4	
66082	Wattle Grove	16 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	59	57.6	
43102	Wattle Grove	16 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	57.4	55.2	
61587	Wattle Grove	16 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	63.1	67	
97517	Wattle Grove	16 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	56	56.3	
35680	Wattle Grove	16 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	60.2	60.2	
68585	Wattle Grove	16 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	59.4	55.9	
48534	Wattle Grove	16 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	60	62.5	
12631	Wattle Grove	16 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	57.4	56	
40953	Wattle Grove	16 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	61.4	66	
5025	Wattle Grove	16 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	64.4	62.9	59.3	
41515	Wattle Grove	16 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	61.1	66.3	
52600	Wattle Grove	16 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	59.5	64.3	69.1	
49988	Wattle Grove	16 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.9	56	57	
39809	Wattle Grove	16 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	56.7	54	
64464	Wattle Grove	16 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.2	64	60	
8527	Wattle Grove	16 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	63.7	70.8	
18093	Wattle Grove	16 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	60	64.7	74.1	
44260	Wattle Grove	161 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	58.6	59.8	63.7	
14008	Wattle Grove	163 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	58.4	60.9	64.2	
28281	Wattle Grove	165 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	58.2	61.7	64.1	
19658	Wattle Grove	167 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	59.5	62.8	67.1	
47703	Wattle Grove	16 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	56.5	47.6	
51778	Wattle Grove	17 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.7	54.7	53.2	
22976	Wattle Grove	17 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	61.1	51.6	
20365	Wattle Grove	17 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.2	61.2	57	
68337	Wattle Grove	17 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	58.2	57.6	
62647	Wattle Grove	17 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	63	61.2	59.4	
43338	Wattle Grove	17 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	66.5	66.5	63.6	
86350	Wattle Grove	17 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.6	54.8	53.9	
47798	Wattle Grove	17 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	65	58.5	
43662	Wattle Grove	17 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	59.2	59.3	
69835	Wattle Grove	17 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	60.6	59.5	
13780	Wattle Grove	17 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	68.4	68.4	62.2	
90085	Wattle Grove	17 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	66	66.9	57.5	
56179	Wattle Grove	17 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	61	61.1	61	
81393	Wattle Grove	17 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	65.6	61.7	58.2	
31504	Wattle Grove	17 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	61.8	62	
60105	Wattle Grove	17 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	64.7	67.7	62.7	
52162	Wattle Grove	17 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	60.1	56.7	
49177	Wattle Grove	17 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	56	48.5	
25855	Wattle Grove	17 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	66.9	69.5	
71033	Wattle Grove	17 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	59.9	63.5	68.2	
19526	Wattle Grove	17 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.1	57.3	55.3	
20160	Wattle Grove	17 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.9	53.4	48.9	
44723	Wattle Grove	17 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	54.6	45.3	
73175	Wattle Grove	17 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.5	61.6	57.6	
57844	Wattle Grove	17 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	66.4	61.6	
22968	Wattle Grove	17 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	56.7	53	
56499	Wattle Grove	17 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	62.8	59.4	
97093	Wattle Grove	17 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	54.4	55.9	56.5	
15326	Wattle Grove	17 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	59.9	62.1	
43121	Wattle Grove	17 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	53.9	53.7	54.9	
51311	Wattle Grove	17 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	57	57.6	
95589	Wattle Grove	17 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	67.2	66.8	
94659	Wattle Grove	17 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.7	55	54.5	
61121	Wattle Grove	17 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	60.3	60	
75931	Wattle Grove	17 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	57.6	57.5	
57003	Wattle Grove	17 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	63.5	64.7	
69772	Wattle Grove	17 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	62.3	63	
33577	Wattle Grove	17 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	53.5	52.7	53.9	
43431	Wattle Grove	17 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	55.3	56.2	
34901	Wattle Grove	17 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	55.2	54.9	53.6	
41779	Wattle Grove	17 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	56.8	55.9	
55645	Wattle Grove	17 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	63.1	61	56.8	
39040	Wattle Grove											

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
86831	Wattle Grove	17 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.4	62	58.5	
59130	Wattle Grove	17 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	56	56.9	
71126	Wattle Grove	17 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	58	56.7	56.3	
45909	Wattle Grove	17 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	59.1	57.7	
17183	Wattle Grove	17 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.9	57.9	58.1	
39728	Wattle Grove	17 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	58.7	55.1	
45269	Wattle Grove	17 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	57.3	54.9	
20630	Wattle Grove	17 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	57.7	61.9	
50943	Wattle Grove	17 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.1	54.2	53.3	
62818	Wattle Grove	17 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	55.9	60.3	65.8	
55575	Wattle Grove	17 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	61	59.2	
21619	Wattle Grove	17 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	58.2	59.6	
16796	Wattle Grove	17 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	66.1	66.9	
56996	Wattle Grove	17 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	58.8	55.8	
81039	Wattle Grove	17 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	62.9	66	
52608	Wattle Grove	17 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	58.6	55.5	
67038	Wattle Grove	17 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	60	66.5	
42473	Wattle Grove	17 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	58	57.7	
49979	Wattle Grove	17 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.4	62.1	66	
44653	Wattle Grove	17 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	56.8	57	
55437	Wattle Grove	17 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	60.5	61.1	
41194	Wattle Grove	17 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	67.6	63.2	60.5	
90396	Wattle Grove	17 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	59.2	58.6	
48195	Wattle Grove	17 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	64.2	69.9	
56759	Wattle Grove	170 HEATHCOTE ROAD HAMMONDVILLE	RES	52	42	42	47	47	56.4	53.8	52.1	
8640	Wattle Grove	172 HEATHCOTE ROAD HAMMONDVILLE	RES	52	42	42	47	47	56.7	53.6	52.1	
27397	Wattle Grove	18 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	62.1	60.1	
45063	Wattle Grove	18 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	57.4	55.1	
83108	Wattle Grove	18 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	58.4	57	54.5	
89797	Wattle Grove	18 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	58.2	56.6	
53631	Wattle Grove	18 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	64	60.9	
29327	Wattle Grove	18 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	55	57	57.7	
24307	Wattle Grove	18 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	63.3	60.8	
24797	Wattle Grove	18 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	58.9	52	
87928	Wattle Grove	18 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56	56.5	54.4	
65802	Wattle Grove	18 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67.2	67	61.8	
31008	Wattle Grove	18 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	65.7	61.7	54.2	
55693	Wattle Grove	18 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	60.3	58.3	
55224	Wattle Grove	18 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	66.4	63.9	59.4	
46399	Wattle Grove	18 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	53.8	55.5	56.8	
65126	Wattle Grove	18 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	60.9	62.1	
62925	Wattle Grove	18 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	63	64.4	61.9	
15950	Wattle Grove	18 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64	62.1	57.1	
17185	Wattle Grove	18 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	59.4	59	57.6	
37375	Wattle Grove	18 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	58.2	54.6	
94000	Wattle Grove	18 CORRIAN COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	57.7	56.7	
8978	Wattle Grove	18 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	64.3	64	
4565	Wattle Grove	18 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.7	55.3	55.9	
95389	Wattle Grove	18 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.9	57.6	53.4	
15107	Wattle Grove	18 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	58.8	56.5	
35142	Wattle Grove	18 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	57.9	55.4	
27416	Wattle Grove	18 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	60.8	58.2	
30139	Wattle Grove	18 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	61.9	57.6	
56145	Wattle Grove	18 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	59.9	60.7	61.9	
31963	Wattle Grove	18 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	64.5	66.4	60.1	
75496	Wattle Grove	18 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	62	60	50.8	
38352	Wattle Grove	18 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	55.2	56	56.2	
89621	Wattle Grove	18 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.9	57.4	58.8	
69744	Wattle Grove	18 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	56.5	56.4	56	
49488	Wattle Grove	18 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	62	62.2	55.5	
40921	Wattle Grove	18 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	61	61	
64608	Wattle Grove	18 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.1	65.9	53	
48257	Wattle Grove	18 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	54.5	56.1	58.8	
95150	Wattle Grove	18 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.1	56.3	55.5	
17853	Wattle Grove	18 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	60.9	61.1	
30201	Wattle Grove	18 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	59.2	60.1	
72282	Wattle Grove	18 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	59.2	67	
94490	Wattle Grove	18 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	56.9	58.6	
70291	Wattle Grove	18 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	53	53.9	54.2	
102965	Wattle Grove	18 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	57.4	57.1	56.4	
82557	Wattle Grove	18 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54	54.7	54.8	
21069	Wattle Grove	18 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	61.4	60.5	
56383	Wattle Grove	18 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	63.3	65.6	
95757	Wattle Grove	18 MADANG STREET HOLSWORTHY	RES	52	42	42	47	47	52.4	52.9	52.8	
35384	Wattle Grove	18 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.9	60.2	57	
55751	Wattle Grove	18 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	56.6	50.1	
20237	Wattle Grove	18 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55	55.5	53.1	
18837	Wattle Grove	18 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	57	57	55.5	
79274	Wattle Grove	18 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	56.2	56.6	
13643	Wattle Grove	18 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.4	55.4	55	
39417	Wattle Grove	18 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	58.5	57.1	
33632	Wattle Grove	18 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	57.3	55.1	
78246	Wattle Grove	18 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	54.2	50.6	48.9	
47815	Wattle Grove	18 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	63.2	64.5	
26609	Wattle Grove	18 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	58.2	58	
57493	Wattle Grove	18 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	61.1	60	
33449	Wattle Grove	18 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	61	59.3	56	
65488	Wattle Grove	18 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	60	63.5	
36437	Wattle Grove	18 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	57.8	54	
22704	Wattle Grove	18 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	61.1	67.1	
4945	Wattle Grove	18 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	63.5	56.2	
84047	Wattle Grove	18 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	61	66.6	
62963	Wattle Grove	18 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	59.3	64.1	70.3	
94148	Wattle Grove	18 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54	56.2	57.2	
35589	Wattle Grove	18 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	57.3	57.9	
28440	Wattle Grove	18 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	68.1	66	60.9	
39169	Wattle Grove	18 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	63.4	73.2	
42327	Wattle Grove	18 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	66.8	72.3	
11583	Wattle Grove	18B BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.7	54.7	54.4	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
24304	Wattle Grove	19 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	55.2	54.5	53.2	
41141	Wattle Grove	19 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	61	59	
8555	Wattle Grove	19 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62	61.9	60.5	
73577	Wattle Grove	19 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	58.7	57.5	
48526	Wattle Grove	19 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	65.4	66.1	60.9	
24101	Wattle Grove	19 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.2	55	53.8	
39934	Wattle Grove	19 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	65	67.4	56.1	
77444	Wattle Grove	19 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56.7	55	52.7	
13543	Wattle Grove	19 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	69	68.9	62.3	
17858	Wattle Grove	19 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	67	67	56.9	
41308	Wattle Grove	19 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	61	60.9	
97800	Wattle Grove	19 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	67.7	63.1	58.3	
50603	Wattle Grove	19 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58	60.8	61.8	
62715	Wattle Grove	19 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	65.6	64.1	
9889	Wattle Grove	19 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	63.3	60.2	56.7	
9975	Wattle Grove	19 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	50.7	43.4	
60705	Wattle Grove	19 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	67	69.6	
73843	Wattle Grove	19 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	60	63.7	66.3	
34822	Wattle Grove	19 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.2	55.9	55.9	
79401	Wattle Grove	19 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.7	57.6	56.6	
18210	Wattle Grove	19 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	59.4	56.3	
27442	Wattle Grove	19 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.7	62.6	58.3	
29139	Wattle Grove	19 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	69.8	60.5	
18006	Wattle Grove	19 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	54.2	54.9	54.9	
38085	Wattle Grove	19 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	60.2	49.1	
92210	Wattle Grove	19 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	55.2	56.2	56.4	
60236	Wattle Grove	19 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	58.6	61.8	
20629	Wattle Grove	19 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	65.5	59.1	
73040	Wattle Grove	19 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.4	54.5	54.3	
31410	Wattle Grove	19 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	60.3	60.1	
28225	Wattle Grove	19 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	55.7	56.6	58.2	
87935	Wattle Grove	19 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	63.7	65.4	
34340	Wattle Grove	19 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	49.4	46.3	47.5	
37623	Wattle Grove	19 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	54.2	56.3	57.2	
97260	Wattle Grove	19 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	56.2	57	57.1	
11561	Wattle Grove	19 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	61.6	60.1	
62137	Wattle Grove	19 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	62.8	65.1	
52283	Wattle Grove	19 MADANG STREET HOLSWORTHY	RES	52	42	42	47	47	54	54.3	54.4	
96683	Wattle Grove	19 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	55.7	56.3	52.7	
40464	Wattle Grove	19 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	68.1	65.9	61.4	
8768	Wattle Grove	19 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56.9	56.7	55.4	
71016	Wattle Grove	19 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	59.1	59.7	
12753	Wattle Grove	19 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.3	55.7	54.9	
67124	Wattle Grove	19 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	58.7	60.4	
68005	Wattle Grove	19 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.4	54.9	54.7	
8888	Wattle Grove	19 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	61.3	68.1	
36342	Wattle Grove	19 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	62.2	60.7	
55442	Wattle Grove	19 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	59.2	59.9	
10544	Wattle Grove	19 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	63.5	64.5	63	
28280	Wattle Grove	19 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	56.7	53.5	
85119	Wattle Grove	19 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	60.5	63	
55599	Wattle Grove	19 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	57.4	55.5	
36977	Wattle Grove	19 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57	60.7	65.9	
69887	Wattle Grove	19 WALLCUIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	63.5	70	
44861	Wattle Grove	19 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.6	61.7	66.3	
2746	Wattle Grove	19 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	55.5	58.1	
82720	Wattle Grove	19 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	56.8	60.6	
58689	Wattle Grove	19 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	68	66.7	60.6	
28210	Wattle Grove	19 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	65.7	72.3	
22502	Wattle Grove	19 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	62.9	68.2	
73237	Wattle Grove	1A BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56	46.1	42.8	
60454	Wattle Grove	1A LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	56.8	55.9	54.1	
21301	Wattle Grove	1A LABUAN ROAD WATTLE GROVE	RES	52	42	42	47	47	59.6	55.7	54.4	
79556	Wattle Grove	1A MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.3	54.4	54.2	
75221	Wattle Grove	1B BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.7	54.9	52.9	
38902	Wattle Grove	1B LABUAN ROAD WATTLE GROVE	RES	52	42	42	47	47	59.1	55.9	53.5	
98955	Wattle Grove	1B MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.1	56.3	52.5	
104190	Wattle Grove	1C LABUAN ROAD WATTLE GROVE	RES	52	42	42	47	47	58.8	54.2	49.3	
41658	Wattle Grove	2 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	58	56	
34751	Wattle Grove	2 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	55	45.6	
105186	Wattle Grove	2 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	57.2	56.8	
30629	Wattle Grove	2 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	51.6	48.7	
27321	Wattle Grove	2 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	59.2	57.4	56	
30808	Wattle Grove	2 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	66.5	64.5	53.6	
61725	Wattle Grove	2 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	53.2	54.4	55.7	
59797	Wattle Grove	2 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	55.5	47.5	
55122	Wattle Grove	2 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	63.9	61.5	
48517	Wattle Grove	2 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	58.7	50.5	
14077	Wattle Grove	2 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	66	65.8	51	
48467	Wattle Grove	2 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	65.9	54.2	
79676	Wattle Grove	2 BRUNEI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.2	55.2	50.5	
23715	Wattle Grove	2 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	60	59.2	
32606	Wattle Grove	2 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	58.8	46.2	
13388	Wattle Grove	2 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	60	57	
63516	Wattle Grove	2 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.4	57	56.7	
14110	Wattle Grove	2 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	59.1	58	
24658	Wattle Grove	2 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	65	65.3	
73353	Wattle Grove	2 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	57.7	51.6	
56858	Wattle Grove	2 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	58.5	61.7	60.1	
31651	Wattle Grove	2 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	56.8	55	
35220	Wattle Grove	2 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	61.7	47.8	
9921	Wattle Grove	2 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	61.4	57.2	56	
31716	Wattle Grove	2 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.8	66	66.6	
34361	Wattle Grove	2 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58.2	59	59	
49643	Wattle Grove	2 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	59	56.2	
69903	Wattle Grove	2 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	58.5	46.5	
24152	Wattle Grove	2 ELDRSLIE COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	65.5	65.6	
51010	Wattle Grove	2 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	60.9	58.9	
32016	Wattle Grove	2 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64	60.2	49.9	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
28633	Wattle Grove	2 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	56.7	54.1	51.8	
84779	Wattle Grove	2 EUMUNG COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	61.2	57	
47952	Wattle Grove	2 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	62.4	55.3	
60287	Wattle Grove	2 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	51.6	45.2	
61364	Wattle Grove	2 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.7	57.2	58.6	
19396	Wattle Grove	2 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	55.1	55.2	54.3	
32820	Wattle Grove	2 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	64	63.7	
51125	Wattle Grove	2 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	62.5	62.5	60.8	
29131	Wattle Grove	2 HAMPTON COURT WATTLE GROVE	RES	52	42	42	47	47	56	57.6	57.2	
61163	Wattle Grove	2 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	55.9	56.3	
27099	Wattle Grove	2 HAVILAH COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	62.1	49.9	
72404	Wattle Grove	2 HICKORY MEWS WATTLE GROVE	RES	52	42	42	47	47	57.8	54.5	54.4	
83215	Wattle Grove	2 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	57.1	57.8	56.5	
38685	Wattle Grove	2 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	59.9	56.3	
21174	Wattle Grove	2 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	63.6	67	
28717	Wattle Grove	2 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	56.4	56.9	
66593	Wattle Grove	2 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	60.5	60.5	
51486	Wattle Grove	2 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	54.5	54.9	56.5	
55965	Wattle Grove	2 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	57	59	
16666	Wattle Grove	2 KIRKHAM MEWS WATTLE GROVE	RES	52	42	42	47	47	58.2	62.6	64.6	
78907	Wattle Grove	2 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	63.1	60.2	
79985	Wattle Grove	2 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	62	66	66.8	
23465	Wattle Grove	2 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	65.1	50.8	47.1	
51742	Wattle Grove	2 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	67.1	66.9	
58662	Wattle Grove	2 MALLEE COURT WATTLE GROVE	RES	52	42	42	47	47	50.9	45.6	46.2	
25733	Wattle Grove	2 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	53.5	55.2	54.2	
46131	Wattle Grove	2 MCKINNON CLOSE HOLSWORTHY	RES	52	42	42	47	47	55.1	55	53.2	
54274	Wattle Grove	2 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	61.5	64.2	
51113	Wattle Grove	2 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	63.5	63.4	62	
87637	Wattle Grove	2 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	57	55	54.7	
97254	Wattle Grove	2 MURDAL COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	65.6	61.5	
38340	Wattle Grove	2 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	59.9	52	
8855	Wattle Grove	2 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	60	58.3	
66161	Wattle Grove	2 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	61	58.4	
39734	Wattle Grove	2 PILLIGA COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	56.4	56	
33113	Wattle Grove	2 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	58	61.6	65.8	
23694	Wattle Grove	2 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.2	53.4	53.3	
63181	Wattle Grove	2 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	58.4	56.2	
13346	Wattle Grove	2 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	54.5	51.9	57	
94163	Wattle Grove	2 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	67.6	68.7	
90325	Wattle Grove	2 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	56	55.9	58.3	
31738	Wattle Grove	2 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	56.3	57.1	
59511	Wattle Grove	2 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	62.5	59.3	56.4	
63473	Wattle Grove	2 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	60.8	57.4	
91311	Wattle Grove	2 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	62.4	64.6	
55210	Wattle Grove	2 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	62.1	68.8	
89759	Wattle Grove	2 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	55.5	54.5	
38668	Wattle Grove	2 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.7	56.7	58	
61687	Wattle Grove	2 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	62.5	58.6	54.1	
15712	Wattle Grove	2 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	65.3	69.1	
10854	Wattle Grove	2 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	58.6	58.4	
27315	Wattle Grove	20 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	58	57.3	55.2	
76490	Wattle Grove	20 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	55	54.9	54	
89396	Wattle Grove	20 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	59	59	50.8	
24768	Wattle Grove	20 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	62.6	62.2	
102183	Wattle Grove	20 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.5	54.2	53.4	
57820	Wattle Grove	20 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	53.2	54.7	55.4	
12009	Wattle Grove	20 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	61.4	64.2	64	
61296	Wattle Grove	20 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	58.2	49	
74331	Wattle Grove	20 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.5	48.4	47.8	
55310	Wattle Grove	20 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	68.9	68.8	62.9	
12186	Wattle Grove	20 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	66	66.9	60.6	
63285	Wattle Grove	20 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	59.3	50.9	
45775	Wattle Grove	20 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	65.7	64.9	58.2	
34126	Wattle Grove	20 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.6	56.4	55.5	
60156	Wattle Grove	20 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	61.7	62.8	
87042	Wattle Grove	20 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	63	66.5	60.8	
38794	Wattle Grove	20 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	66.6	62.5	57.1	
4804	Wattle Grove	20 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	55.3	56.6	54.3	
108206	Wattle Grove	20 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	47.9	43.5	
14170	Wattle Grove	20 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	57.7	54.6	
80727	Wattle Grove	20 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	67.3	67.7	
89183	Wattle Grove	20 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.1	55.3	55.5	
88851	Wattle Grove	20 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.9	54.6	43.1	
70467	Wattle Grove	20 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	57.5	47	
57706	Wattle Grove	20 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66	62.3	57.3	
76868	Wattle Grove	20 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	58.8	59.3	61	
89820	Wattle Grove	20 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	65.2	65.4	62.2	
9814	Wattle Grove	20 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	63.2	62.7	55.6	
99989	Wattle Grove	20 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	54.5	53.4	55	
56425	Wattle Grove	20 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	56	59.4	59.6	
70028	Wattle Grove	20 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	56.6	56.5	55.1	
49591	Wattle Grove	20 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	62.4	50.4	
65591	Wattle Grove	20 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66	62.7	56.4	
12344	Wattle Grove	20 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	58.8	59.2	
25998	Wattle Grove	20 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.5	54	53.2	
58143	Wattle Grove	20 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	58.1	57.6	
34037	Wattle Grove	20 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	60.1	58.9	
17032	Wattle Grove	20 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	55.9	61.5	64.1	
21184	Wattle Grove	20 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	57	58.8	
72272	Wattle Grove	20 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	48.6	53.9	54.8	
101593	Wattle Grove	20 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	58.6	57.2	56.3	
76061	Wattle Grove	20 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.5	54.6	52.5	
49359	Wattle Grove	20 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	65.3	66.2	
28476	Wattle Grove	20 MADANG STREET HOLSWORTHY	RES	52	42	42	47	47	52.5	53.4	53.6	
90347	Wattle Grove	20 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	53.1	53.7	53.9	
44109	Wattle Grove	20 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	65.2	64.8	61.5	
35430	Wattle Grove	20 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	60.8	60.4	
98508	Wattle Grove	20 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.1	54.1	53.8	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
101220	Wattle Grove	20 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56.9	56.9	53.3
18276	Wattle Grove	20 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55	56.1	56.2
105197	Wattle Grove	20 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.2	56.8	56.7
88770	Wattle Grove	20 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	60.1	59.9
13903	Wattle Grove	20 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	61	59.1	55
59049	Wattle Grove	20 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.2	54	53.7
51297	Wattle Grove	20 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	60.8	61.1
61140	Wattle Grove	20 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	61.3	61.3
72685	Wattle Grove	20 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	59.4	56.2
94224	Wattle Grove	20 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	58.5	60.8
30161	Wattle Grove	20 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	57.9	55.7
10188	Wattle Grove	20 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	61.1	66.9
58033	Wattle Grove	20 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	66.8	64.1	51.7
86925	Wattle Grove	20 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	61	66.7
59670	Wattle Grove	20 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	60	65.6	69.8
65381	Wattle Grove	20 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54	56	57
83708	Wattle Grove	20 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	57.5	59.3
41500	Wattle Grove	20 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	67.8	65.6	61
24332	Wattle Grove	20 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	60.6	59.1
18503	Wattle Grove	20 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	66.2	72.6
37640	Wattle Grove	205 HEATHCOTE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.8	55	54.5
102230	Wattle Grove	2069 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	59.7	60.1	60
102943	Wattle Grove	21 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.6	55.4	49.8
38939	Wattle Grove	21 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	59.7	57.9
64896	Wattle Grove	21 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.2	61.8	55.4
56567	Wattle Grove	21 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	60	60	57.2
55336	Wattle Grove	21 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	66.1	65.1	58.8
74649	Wattle Grove	21 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	65.5	66.3	59.5
104498	Wattle Grove	21 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.4	50.4	51.2
64727	Wattle Grove	21 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	69.1	69	62.9
23587	Wattle Grove	21 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	65.8	63	58.2
79106	Wattle Grove	21 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	66.1	61.9	58.3
57125	Wattle Grove	21 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58	60.9	62
46186	Wattle Grove	21 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	66.5	64
28855	Wattle Grove	21 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	63	60.3	56.8
11226	Wattle Grove	21 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	48.3	43.6
81466	Wattle Grove	21 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61	65.5	69.5
75162	Wattle Grove	21 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56	55.9	56.3
102039	Wattle Grove	21 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.7	58.2	56.7
71489	Wattle Grove	21 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	59	59	56.5
39043	Wattle Grove	21 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.7	61.8	57.7
95631	Wattle Grove	21 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	65.5	52.6
80257	Wattle Grove	21 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	51.7	56	57.6
47296	Wattle Grove	21 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	57.6	56.7
41944	Wattle Grove	21 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	58	61.1
57788	Wattle Grove	21 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	67.7	65.7	64.5
96952	Wattle Grove	21 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.5	53.5	52.4
87165	Wattle Grove	21 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	60.2	60.2
95133	Wattle Grove	21 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	58	57.9
34144	Wattle Grove	21 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	62.2	63.5
42791	Wattle Grove	21 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.9	53.2	53.2
19756	Wattle Grove	21 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	54.6	58.1	58.3
27666	Wattle Grove	21 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	56.4	55.5	55.3
80362	Wattle Grove	21 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.4	55.6	55.8
8580	Wattle Grove	21 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	63.1	61
45406	Wattle Grove	21 LYNDBURN COURT WATTLE GROVE	RES	52	42	42	47	47	61	63.8	63.1
104312	Wattle Grove	21 MADANG STREET HOLSWORTHY	RES	52	42	42	47	47	55	56	56.5
97600	Wattle Grove	21 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	55.8	56.7	56.9
25292	Wattle Grove	21 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.9	66.1	61.6
43910	Wattle Grove	21 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	54.5	54.2	53.7
74104	Wattle Grove	21 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	59.6	59.7
33236	Wattle Grove	21 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.2	54.6	54.9
16540	Wattle Grove	21 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57	58.7	61.3
10085	Wattle Grove	21 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	52.9	53.2	55.3
77935	Wattle Grove	21 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	61.3	59.4
89538	Wattle Grove	21 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	57.2	58.6
54312	Wattle Grove	21 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	58.1	58.3
59660	Wattle Grove	21 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	64.9	65.2
38726	Wattle Grove	21 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	58.6	56.1
41031	Wattle Grove	21 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59	61.8	62.2
30760	Wattle Grove	21 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	59.9	58
24139	Wattle Grove	21 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	52.5	59.9	62.8
91612	Wattle Grove	21 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.2	61.2	66.1
40743	Wattle Grove	21 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	53.8	56.1	57.5
66519	Wattle Grove	21 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.4	55.5	58.2
34267	Wattle Grove	21 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	67.4	65.5	61
60768	Wattle Grove	21 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	63.2	67.5
35633	Wattle Grove	22 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	57.2	54.6
85731	Wattle Grove	22 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.4	53.3	52
76917	Wattle Grove	22 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	59.1	57.4
27107	Wattle Grove	22 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	62.5	53.4
44992	Wattle Grove	22 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	64.4	63.3
38588	Wattle Grove	22 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	59.4	52.3
102144	Wattle Grove	22 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.9	57.8	55.5
62050	Wattle Grove	22 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67.1	60.9	57.1
48726	Wattle Grove	22 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	66.7	66.9	62.2
58968	Wattle Grove	22 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	61	59.4
39206	Wattle Grove	22 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	54.5	56.1
26152	Wattle Grove	22 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	55.4	55.6
83734	Wattle Grove	22 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58	61.1	63.3
27270	Wattle Grove	22 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	65.1	61.8
92798	Wattle Grove	22 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64.6	63.2	58.2
43322	Wattle Grove	22 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	57.6	57.8	58
14879	Wattle Grove	22 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	57.7	55
71622	Wattle Grove	22 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	64.4	70.4
50917	Wattle Grove	22 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.6	55.4	55.6
20662	Wattle Grove	22 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	59.1	47
65240	Wattle Grove	22 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64.7	60.9	57.4
83014	Wattle Grove	22 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	58.6	63.4	63.7

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
20571	Wattle Grove	22 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	66.2	66.6	58.6	
65351	Wattle Grove	22 FINSCHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	52.1	51.8	51.7	
46646	Wattle Grove	22 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55	57.9	58.7	
36055	Wattle Grove	22 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	55.1	55.3	55.2	
30792	Wattle Grove	22 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	62.3	61.7	
31602	Wattle Grove	22 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.8	63.4	55.3	
95859	Wattle Grove	22 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	54.5	57.3	59	
84739	Wattle Grove	22 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	51.1	54.6	54.1	
38663	Wattle Grove	22 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	63	62.6	
76728	Wattle Grove	22 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	61.3	60.9	
37655	Wattle Grove	22 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	63.2	63.4	
74196	Wattle Grove	22 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.6	52.9	52.5	
33733	Wattle Grove	22 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	54.9	54.7	52	
104301	Wattle Grove	22 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.9	56.7	56.9	
14020	Wattle Grove	22 LYNDRHURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	63.9	65.8	
89453	Wattle Grove	22 MADANG STREET HOLSWORTHY	RES	52	42	42	47	47	55	55.9	56.1	
33638	Wattle Grove	22 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	53.3	53.4	55.2	
11444	Wattle Grove	22 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.2	65.9	60.9	
37791	Wattle Grove	22 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.3	55.6	55.4	
93465	Wattle Grove	22 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56	55.9	52.4	
39697	Wattle Grove	22 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	56.1	57	
90873	Wattle Grove	22 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.6	56.6	54.6	
83736	Wattle Grove	22 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	57.1	55	
56419	Wattle Grove	22 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	54.4	54.6	48.6	
40115	Wattle Grove	22 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	65.5	61.8	
88191	Wattle Grove	22 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	61.5	61.2	
24095	Wattle Grove	22 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	61.5	55.8	
76896	Wattle Grove	22 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	61.1	63.9	
39427	Wattle Grove	22 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	59.6	56.3	
60732	Wattle Grove	22 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	61.3	66.9	
44531	Wattle Grove	22 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	58.5	49.2	
81849	Wattle Grove	22 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	60.1	64.9	
7294	Wattle Grove	22 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.7	66.5	70.3	
55231	Wattle Grove	22 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	53.9	55.9	56.9	
76928	Wattle Grove	22 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55	57.6	61.6	
65507	Wattle Grove	22 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	67.5	74	
105266	Wattle Grove	23 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.7	56.4	55	
5333	Wattle Grove	23 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	59.4	57.5	
45875	Wattle Grove	23 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.3	58.4	58	
54755	Wattle Grove	23 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	59.2	57	
38050	Wattle Grove	23 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	67.4	68.3	62.6	
64903	Wattle Grove	23 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57	56.1	53.4	
40925	Wattle Grove	23 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	65.8	61.2	
104496	Wattle Grove	23 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	54.4	53.8	52.5	
77340	Wattle Grove	23 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	69.2	69.1	63.8	
29254	Wattle Grove	23 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	68.5	66.6	
50185	Wattle Grove	23 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	68.2	64.8	60.7	
45118	Wattle Grove	23 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	60.9	62.7	
40908	Wattle Grove	23 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.4	65.3	65.7	
84020	Wattle Grove	23 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	60.4	56.9	
36089	Wattle Grove	23 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	67.1	67.9	
22129	Wattle Grove	23 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	52.7	54.3	55.5	
69625	Wattle Grove	23 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.7	51.1	46.9	
84240	Wattle Grove	23 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.9	62.3	58.2	
47708	Wattle Grove	23 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	65.7	67.6	61.6	
58187	Wattle Grove	23 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	63.2	58.2	54.8	
76599	Wattle Grove	23 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	67.9	68.7	55	
86963	Wattle Grove	23 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.4	53.6	52	
30052	Wattle Grove	23 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59	60.6	62.3	
55608	Wattle Grove	23 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	60.9	60.4	
43813	Wattle Grove	23 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.7	52.8	47.9	
66397	Wattle Grove	23 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	56.8	54.7	53.6	
95086	Wattle Grove	23 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.4	55.9	56	
54286	Wattle Grove	23 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	52	53.8	
32783	Wattle Grove	23 LYNDRHURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	61.6	64.1	
29528	Wattle Grove	23 MADANG STREET HOLSWORTHY	RES	52	42	42	47	47	53.1	54.2	54	
70907	Wattle Grove	23 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	53.3	53.9	54	
93966	Wattle Grove	23 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.8	66.2	61.7	
71969	Wattle Grove	23 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	54.2	54.2	53.8	
96032	Wattle Grove	23 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.1	56.8	55.4	
33351	Wattle Grove	23 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	60.2	60.4	
35210	Wattle Grove	23 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	61.9	69	
53363	Wattle Grove	23 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	56.1	56.8	
23037	Wattle Grove	23 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	63.4	63.5	
50372	Wattle Grove	23 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	57.6	53.5	
76798	Wattle Grove	23 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	62.3	63.9	
6495	Wattle Grove	23 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	55.6	50.7	
25414	Wattle Grove	23 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	61.2	66.8	
44704	Wattle Grove	23 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.7	59.6	59.9	
92989	Wattle Grove	23 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	51.1	56.5	61.7	
61546	Wattle Grove	23 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	65.8	63.9	60.8	
82220	Wattle Grove	23 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	62.3	62.6	
16848	Wattle Grove	24 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	56.7	55.3	
86211	Wattle Grove	24 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56	55.3	53.3	
76481	Wattle Grove	24 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57	56.9	52.3	
37974	Wattle Grove	24 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	64.1	61.6	
11305	Wattle Grove	24 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	55	57.2	57.5	
45902	Wattle Grove	24 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	63.5	56.5	61.1	
78363	Wattle Grove	24 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	60.5	53.7	
33648	Wattle Grove	24 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56.4	52.6	51.2	
97174	Wattle Grove	24 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67	66.9	61.1	
65333	Wattle Grove	24 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	66.4	67.4	58	
51633	Wattle Grove	24 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	60.3	52.5	
18348	Wattle Grove	24 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	67.7	50.8	46.9	
81472	Wattle Grove	24 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.9	56.6	57	
82120	Wattle Grove	24 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	61.4	62.9	
72907	Wattle Grove	24 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	64.5	61.1	
69270	Wattle Grove	24 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	61.9	56.6	
85493	Wattle Grove	24 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	57.7	58.5	51.1	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
12024	Wattle Grove	24 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	57.4	55.4	
42214	Wattle Grove	24 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	64.8	71.5	
46046	Wattle Grove	24 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57	57.9	58.1	
78070	Wattle Grove	24 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.1	55.2	45.2	
91553	Wattle Grove	24 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	58	47.2	
65603	Wattle Grove	24 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	68.8	63.7	57.9	
30577	Wattle Grove	24 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	67.5	64.5	
83354	Wattle Grove	24 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	55.1	54.8	53.9	
61905	Wattle Grove	24 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	57.7	59.8	
70839	Wattle Grove	24 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	53.9	53.9	53.4	
38617	Wattle Grove	24 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.6	66.8	56.2	
29384	Wattle Grove	24 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	58	58.2	
47397	Wattle Grove	24 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	63.9	64	
34953	Wattle Grove	24 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	61.6	59.5	
66129	Wattle Grove	24 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	53	62	
33390	Wattle Grove	24 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.6	55.2	55.6	
26529	Wattle Grove	24 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	54.4	54.5	53.6	
107370	Wattle Grove	24 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.7	56.5	57.8	
48324	Wattle Grove	24 LYNDHURST COURT WATTLE GROVE	RES	52	42	42	47	47	54.2	56.5	59.9	
96781	Wattle Grove	24 MADANG STREET HOLSWORTHY	RES	52	42	42	47	47	55.2	56.2	56.4	
10451	Wattle Grove	24 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.3	63.9	59.2	
98910	Wattle Grove	24 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.5	53.9	53.8	
99190	Wattle Grove	24 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56.9	56.9	56.6	
43143	Wattle Grove	24 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	57.7	57.5	
20380	Wattle Grove	24 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.3	55.4	55.6	
45042	Wattle Grove	24 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	53.2	52.6	
74255	Wattle Grove	24 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	57	56.9	55.9	
82756	Wattle Grove	24 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	61.4	57.3	
28154	Wattle Grove	24 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60	59.5	59.4	
14590	Wattle Grove	24 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	58.3	55.7	
97776	Wattle Grove	24 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	62.1	64	
76988	Wattle Grove	24 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	61.5	65.2	
76287	Wattle Grove	24 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	63.5	61.5	54.1	
18298	Wattle Grove	24 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	60.5	60.4	
20439	Wattle Grove	24 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.4	64.4	63.7	
57656	Wattle Grove	24 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	53.8	55.9	57	
56217	Wattle Grove	24 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	59.1	61.5	
31890	Wattle Grove	24 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	68.1	65.5	60.9	
107338	Wattle Grove	25 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	54.9	54.3	53.1	
35024	Wattle Grove	25 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	60	57.3	57.2	
24752	Wattle Grove	25 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.4	62.4	56.2	
44016	Wattle Grove	25 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	68.6	63.3	
95352	Wattle Grove	25 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.9	54.6	51.7	
37460	Wattle Grove	25 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	62.2	61	
10014	Wattle Grove	25 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	69.3	69.3	64.4	
79149	Wattle Grove	25 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	66.9	66.3	60.7	
91245	Wattle Grove	25 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	68	63.3	58.5	
22449	Wattle Grove	25 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	63.1	60.5	58	
33025	Wattle Grove	25 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	66.5	67.7	
66395	Wattle Grove	25 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.6	55.8	55.8	
87151	Wattle Grove	25 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.8	57.5	51.7	
13439	Wattle Grove	25 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.1	61.9	57.9	
38738	Wattle Grove	25 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	68.1	70.2	59.8	
19634	Wattle Grove	25 FERNSLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61.4	60.8	58.6	
44695	Wattle Grove	25 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	62.1	62.8	
24418	Wattle Grove	25 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	61	60.9	
65078	Wattle Grove	25 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	51.9	52.6	51.4	
69577	Wattle Grove	25 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	54.8	54.6	53.5	
13852	Wattle Grove	25 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.5	55.5	55.5	
51004	Wattle Grove	25 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	60.8	60.1	
33270	Wattle Grove	25 LYNDHURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	61.6	64.9	
84034	Wattle Grove	25 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	55.7	56.6	55.9	
28509	Wattle Grove	25 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.5	63.2	57.7	
97270	Wattle Grove	25 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56.5	56.4	52.6	
81650	Wattle Grove	25 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.2	56.3	54.5	
8915	Wattle Grove	25 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	58	62.2	60.6	
84073	Wattle Grove	25 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	59.3	57.7	
22060	Wattle Grove	25 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	63.3	64	63.3	
29771	Wattle Grove	25 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	63	65.9	
30401	Wattle Grove	25 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	59	62.6	67.3	
20959	Wattle Grove	25 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.8	60.9	65.5	
83555	Wattle Grove	25 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	59.3	60.1	
80689	Wattle Grove	25 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	65.8	64.4	61.4	
11258	Wattle Grove	25 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	66.8	74.8	
31195	Wattle Grove	26 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	56.6	55.5	
98092	Wattle Grove	26 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	54.7	55.2	53.3	
11832	Wattle Grove	26 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	64.1	61.8	
10735	Wattle Grove	26 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.8	54.7	53.8	
102187	Wattle Grove	26 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	53.4	54.5	52.2	
31647	Wattle Grove	26 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	63.5	63.7	56.8	
63342	Wattle Grove	26 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	60.6	56.4	
95312	Wattle Grove	26 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56	55	52.9	
78030	Wattle Grove	26 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	69.7	69.7	67.5	
13143	Wattle Grove	26 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	62.8	53.2	
7343	Wattle Grove	26 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	67	65.1	60.8	
39457	Wattle Grove	26 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.5	55.1	48	
75006	Wattle Grove	26 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	64.3	67	
61255	Wattle Grove	26 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	66.4	67.4	
61594	Wattle Grove	26 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	65.1	62.8	56.4	
55976	Wattle Grove	26 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	58.2	58.2	47.5	
32775	Wattle Grove	26 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59	57.6	55.2	
95752	Wattle Grove	26 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	64.9	71.8	
44283	Wattle Grove	26 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.5	55.4	56.1	
107351	Wattle Grove	26 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.8	56.7	56.3	
89289	Wattle Grove	26 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	59.5	49.1	
88377	Wattle Grove	26 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	67.3	62.6	58.9	
58624	Wattle Grove	26 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	68	68.7	67.5	
32633	Wattle Grove	26 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	58.5	58.4	
3221	Wattle Grove	26 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	55.1	54.2	53.3	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 1	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
58798	Wattle Grove	26 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	68.3	69.2	56.5
33938	Wattle Grove	26 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	56.6	58.1
75043	Wattle Grove	26 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	61	63.7	63.8
58554	Wattle Grove	26 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	55.9	56.1
97226	Wattle Grove	26 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	56.1	57	57.2
37441	Wattle Grove	26 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	63.8	65.7
20549	Wattle Grove	26 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	68.6	64.6	60.4
97911	Wattle Grove	26 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	58.6	58.9
87653	Wattle Grove	26 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.2	54.6	54.7
105234	Wattle Grove	26 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	59	57.1
51105	Wattle Grove	26 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	65.4	53.8
19138	Wattle Grove	26 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	62.5	64.2
62099	Wattle Grove	26 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	61.1	65
14104	Wattle Grove	26 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	63	57.2	57.1
57153	Wattle Grove	26 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	61.1	67.9
45535	Wattle Grove	26 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	61	63.9	65
21653	Wattle Grove	26 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	55.8	57.1
79488	Wattle Grove	26 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	58.5	59.7
59250	Wattle Grove	26 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	69.3	59.4	51.3
13609	Wattle Grove	27 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	54.8	54.3	53.1
24878	Wattle Grove	27 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	59.6	58.2
34995	Wattle Grove	27 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.2	62.9	61.4
75967	Wattle Grove	27 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	68.9	69	63
92479	Wattle Grove	27 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	65.7	65.8	61.7
12089	Wattle Grove	27 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.9	54.4	52.6
43518	Wattle Grove	27 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	69.5	70.3	64.9
45667	Wattle Grove	27 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	67.9	68.2	62.6
94648	Wattle Grove	27 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	67.9	64.4	59.4
14553	Wattle Grove	27 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	61	58.2
18936	Wattle Grove	27 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.2	68.2	69.5
35736	Wattle Grove	27 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.2	58.1	58.3
51953	Wattle Grove	27 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57	56.6	54.1
43300	Wattle Grove	27 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.7	62.6	58.4
6716	Wattle Grove	27 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	56	51.5
56362	Wattle Grove	27 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	62.1	60.9
63009	Wattle Grove	27 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	57.2	56.9	55.3
48788	Wattle Grove	27 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.9	54.9	55.4
93387	Wattle Grove	27 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	61.2	58.9
46328	Wattle Grove	27 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	61.9	63.7
91877	Wattle Grove	27 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	54.5	54.1	54.3
54279	Wattle Grove	27 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	66.6	66.5	62.9
92059	Wattle Grove	27 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	54.1	54.2	54
36480	Wattle Grove	27 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.2	56.3	56.1
51586	Wattle Grove	27 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	60.4	60.6
80445	Wattle Grove	27 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	57	56.7	55.7
90195	Wattle Grove	27 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	57.2	58.5
29775	Wattle Grove	27 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	64	62.2
21016	Wattle Grove	27 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	62.3	67.5
72625	Wattle Grove	27 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	59.5	63.4	65.8
61287	Wattle Grove	27 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	58.2	55.8
8905	Wattle Grove	27 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.1	63.9	60.5
12168	Wattle Grove	28 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	56.6	54.4
15115	Wattle Grove	28 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.2	56.8	53.3
59272	Wattle Grove	28 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	63.3	61.5
19352	Wattle Grove	28 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.9	51.9	51
10939	Wattle Grove	28 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	62.4	51.5
15198	Wattle Grove	28 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.3	56.8	55.2
81631	Wattle Grove	28 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	60.7	59.9
51666	Wattle Grove	28 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.4	55.6	56.5
25041	Wattle Grove	28 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	63.5	64.4
64296	Wattle Grove	28 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	67.5	64	58.7
49777	Wattle Grove	28 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	56.3	57.4	56.6
20675	Wattle Grove	28 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.5	55.3	55.5
40757	Wattle Grove	28 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.5	58	56.8
88305	Wattle Grove	28 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	58.4	47.7
23679	Wattle Grove	28 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	69.5	63.5	58.4
65385	Wattle Grove	28 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	58	59.1
95461	Wattle Grove	28 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	55.9	55.9	55.6
65679	Wattle Grove	28 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	54.3	57.7	58.7
13662	Wattle Grove	28 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.7	54.9	55.1
72187	Wattle Grove	28 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.4	54.5	55.4
8457	Wattle Grove	28 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	64.6	64.7
26866	Wattle Grove	28 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	68.7	66.9	61.2
74426	Wattle Grove	28 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	57.2	54.8
49852	Wattle Grove	28 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.4	54.5	54.7
31569	Wattle Grove	28 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	65.8	53.8
24483	Wattle Grove	28 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	61.2	64.3
43787	Wattle Grove	28 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	60.5	65.7
55267	Wattle Grove	28 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	55.1	49.9
15590	Wattle Grove	28 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	61.2	69.2
16030	Wattle Grove	28 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58.1	61.9	63.5
27295	Wattle Grove	28 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	58	59.9
73487	Wattle Grove	28 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	68.3	66.2	61.1
61717	Wattle Grove	29 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	54.6	54.3	53.1
26682	Wattle Grove	29 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	60	56.8	46
37933	Wattle Grove	29 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.8	63.4	59.2
40033	Wattle Grove	29 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	69.6	70.5	63.3
90989	Wattle Grove	29 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	61	52.6
43146	Wattle Grove	29 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56.6	53.8	52.6
45493	Wattle Grove	29 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	68.6	64.5	59
56465	Wattle Grove	29 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	61.2	57.1
26761	Wattle Grove	29 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	65.9	69
91264	Wattle Grove	29 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	52.8	53.4	55.9
85951	Wattle Grove	29 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.1	54.2	53.8
26038	Wattle Grove	29 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	62.6	58.1
53701	Wattle Grove	29 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	54.1	48.5
36929	Wattle Grove	29 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	54.3	53.6	53.1
14486	Wattle Grove	29 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	60.9	57.7
38624	Wattle Grove	29 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.9	56.5	56.6

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
39214	Wattle Grove	29 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	61.8	59	
26617	Wattle Grove	29 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	62.6	64.4	
30050	Wattle Grove	29 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	52.9	53.9	54	
26628	Wattle Grove	29 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	69.2	66.8	64.3	
31444	Wattle Grove	29 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56.6	56.8	54	
88691	Wattle Grove	29 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.8	55.2	48.3	
35655	Wattle Grove	29 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.9	54.6	53.7	
68706	Wattle Grove	29 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	63.5	69.4	
55251	Wattle Grove	29 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	65	62.3	
53051	Wattle Grove	29 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	61.9	67.6	
42209	Wattle Grove	29 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	59.3	61.9	
9853	Wattle Grove	29 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	66.7	59.8	
71697	Wattle Grove	2A CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	57.9	55.4	
9766	Wattle Grove	2A KESAWAI PLACE HOLSWORTHY	RES	52	42	42	47	47	56	56.1	54.1	
87445	Wattle Grove	2A LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	58.1	55.2	45.2	
46466	Wattle Grove	2A MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55	54.8	54.6	
11431	Wattle Grove	2B CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	55.1	54.6	
8697	Wattle Grove	2B KESAWAI PLACE HOLSWORTHY	RES	52	42	42	47	47	53.9	53	45.2	
12866	Wattle Grove	2B LABUAN ROAD WATTLE GROVE	RES	52	42	42	47	47	59.1	58.9	55	
77738	Wattle Grove	2B MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	61.6	55.9	
68145	Wattle Grove	2B MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.1	54	55.5	
74117	Wattle Grove	2B WAU PLACE HOLSWORTHY	RES	52	42	42	47	47	56.8	57.4	57.6	
11100	Wattle Grove	2C LABUAN ROAD WATTLE GROVE	RES	52	42	42	47	47	59	57.1	54.9	
69439	Wattle Grove	2D LABUAN ROAD WATTLE GROVE	RES	52	42	42	47	47	59.7	59.6	56.9	
35399	Wattle Grove	3 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	60.3	58.7	
39831	Wattle Grove	3 AITAPE PLACE HOLSWORTHY	RES	52	42	42	47	47	57	57	54.8	
74329	Wattle Grove	3 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	58	55.6	
88339	Wattle Grove	3 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	55.1	53.3	
73290	Wattle Grove	3 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	54.1	53.4	
82801	Wattle Grove	3 ANEURA COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	56.2	54.6	
84038	Wattle Grove	3 ANZAC ROAD HOLSWORTHY	RES	52	42	42	47	47	56.8	47.4	42.9	
36185	Wattle Grove	3 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	57.7	56.4	
30187	Wattle Grove	3 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	63.9	63.1	60.1	
5123	Wattle Grove	3 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	59.5	56.1	
34852	Wattle Grove	3 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	60.5	59	
54900	Wattle Grove	3 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	59.4	58.3	56.1	
27290	Wattle Grove	3 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	61.4	57.3	
75397	Wattle Grove	3 BENA BENA PLACE HOLSWORTHY	RES	52	42	42	47	47	55.3	56.2	55.2	
37267	Wattle Grove	3 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	59.5	54.6	
21958	Wattle Grove	3 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	59	59.1	60.1	
41685	Wattle Grove	3 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.2	57	55.4	
15346	Wattle Grove	3 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	63.4	52.3	
65449	Wattle Grove	3 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	65.1	58.7	
78977	Wattle Grove	3 BUNA STREET HOLSWORTHY	RES	52	42	42	47	47	54.4	54.5	56.1	
42632	Wattle Grove	3 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	61	61.1	54.5	
20426	Wattle Grove	3 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	58.4	52.3	
107361	Wattle Grove	3 CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	58.9	58	
52196	Wattle Grove	3 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	60.1	58.1	
73398	Wattle Grove	3 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	55.1	62.1	
52220	Wattle Grove	3 CLIVEDEN COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	58.1	52.1	
83984	Wattle Grove	3 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	62	60.8	56.5	
59266	Wattle Grove	3 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	58	57.1	
54895	Wattle Grove	3 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	56.6	56.1	
66187	Wattle Grove	3 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	61.4	53.6	
59439	Wattle Grove	3 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	58.9	57	
51472	Wattle Grove	3 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	64.8	70.4	
55460	Wattle Grove	3 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.5	66.1	66	
45441	Wattle Grove	3 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.8	57.5	57.7	
4415	Wattle Grove	3 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	54.6	54.4	53	
80719	Wattle Grove	3 DERNAL ROAD HOLSWORTHY	RES	52	42	42	47	47	58.6	54.2	42.9	
58923	Wattle Grove	3 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	60.7	58.2	
19574	Wattle Grove	3 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	59	52.3	
46510	Wattle Grove	3 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	57.9	53.3	
70047	Wattle Grove	3 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	61.2	50.4	
61078	Wattle Grove	3 EUMUNG COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	56.9	57.9	
52015	Wattle Grove	3 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	54.9	57.9	
18121	Wattle Grove	3 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	66.6	60.2	
74430	Wattle Grove	3 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	58.3	58.5	
40126	Wattle Grove	3 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	57	52.9	
20755	Wattle Grove	3 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	55.2	54.5	52	
19682	Wattle Grove	3 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	58.3	57.6	
2421	Wattle Grove	3 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	63.3	63	62.8	
57075	Wattle Grove	3 HAMPTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	57.2	56.8	
33018	Wattle Grove	3 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	51.9	53.2	51.7	
68038	Wattle Grove	3 HAVILAH COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	62.9	60.5	
19366	Wattle Grove	3 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.7	55.2	54.3	
58588	Wattle Grove	3 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	58.3	58	
39842	Wattle Grove	3 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	63.3	65.5	
37834	Wattle Grove	3 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	56.3	56.3	53.4	
29674	Wattle Grove	3 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	54.1	54.6	
99784	Wattle Grove	3 KESAWAI PLACE HOLSWORTHY	RES	52	42	42	47	47	57.2	57.2	55.3	
29412	Wattle Grove	3 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	61.4	60	
48658	Wattle Grove	3 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	54.7	57.2	59.1	
57834	Wattle Grove	3 KIRKHAM MEWS WATTLE GROVE	RES	52	42	42	47	47	57.1	63.4	65.3	
76772	Wattle Grove	3 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	57.9	57.5	55.6	
72867	Wattle Grove	3 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.8	55.6	55.3	
44175	Wattle Grove	3 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	64.1	57.9	
9945	Wattle Grove	3 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	66.7	63.3	
8435	Wattle Grove	3 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	59.9	61.2	
63853	Wattle Grove	3 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	67.5	65.9	59	
37947	Wattle Grove	3 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	65.2	67.8	
13055	Wattle Grove	3 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	53.6	54	55	
37556	Wattle Grove	3 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	52.9	55.2	
83153	Wattle Grove	3 MCKINNON CLOSE HOLSWORTHY	RES	52	42	42	47	47	53.5	53.4	55.2	
49056	Wattle Grove	3 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	59.8	61.3	
19266	Wattle Grove	3 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	63.5	64.1	64	
66015	Wattle Grove	3 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.7	54.7	53.9	
76206	Wattle Grove	3 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	54	54	52	
57484	Wattle Grove	3 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	56.1	48.7	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
99111	Wattle Grove	3 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	57.7	57.3	56.1	
12486	Wattle Grove	3 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	61.3	49.2	
35994	Wattle Grove	3 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	54.4	58.8	
96989	Wattle Grove	3 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	65.6	50.2	46.7	
43443	Wattle Grove	3 PILLIGA COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	56.9	57	
40467	Wattle Grove	3 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	59	67.1	
49501	Wattle Grove	3 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.4	53.6	54.2	
99586	Wattle Grove	3 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.2	54.7	52.6	
48017	Wattle Grove	3 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	58.7	64.4	
63893	Wattle Grove	3 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	58.6	60	
30529	Wattle Grove	3 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	57.5	58.7	
66254	Wattle Grove	3 TALBOT COURT WATTLE GROVE	RES	52	42	42	47	47	67.3	67.1	62.7	
70222	Wattle Grove	3 TICAL COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	62	60.7	
11610	Wattle Grove	3 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	62.5	53.3	
54469	Wattle Grove	3 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	63.4	57.9	
11253	Wattle Grove	3 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	60.6	62.6	
35550	Wattle Grove	3 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	57.4	56	
23563	Wattle Grove	3 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	59.6	64.4	
4498	Wattle Grove	3 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	62.5	59.8	
31836	Wattle Grove	3 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.8	66.1	68.1	
101475	Wattle Grove	3 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	57.5	57.7	53.4	
89501	Wattle Grove	3 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	58.8	60.3	
22494	Wattle Grove	3 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	58.3	59.6	
79063	Wattle Grove	3 WOLLEMI COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	55.5	54.3	
15573	Wattle Grove	3 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	65.8	67.7	
37877	Wattle Grove	3 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	64.5	66.9	
49323	Wattle Grove	3 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	59.2	57.9	
8806	Wattle Grove	30 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	52	56.1	54.4	
101562	Wattle Grove	30 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.3	56.9	55.8	
23684	Wattle Grove	30 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	63.3	62.4	
80655	Wattle Grove	30 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.8	53.3	52.9	
58118	Wattle Grove	30 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	62	57.8	
86333	Wattle Grove	30 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.1	54.4	52	
29970	Wattle Grove	30 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	53.3	54.9	55.7	
77424	Wattle Grove	30 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	57.1	61.7	
35871	Wattle Grove	30 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	67.3	62.7	58.7	
82546	Wattle Grove	30 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	56.3	57.8	55.7	
58169	Wattle Grove	30 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	68.6	71.5	
45793	Wattle Grove	30 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.5	64	62.1	
51560	Wattle Grove	30 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.5	55.4	55.6	
66918	Wattle Grove	30 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	55.5	54.3	
17811	Wattle Grove	30 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	69.2	64.6	60.1	
8898	Wattle Grove	30 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	59.4	59.6	
11946	Wattle Grove	30 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	54	53.8	53.4	
16010	Wattle Grove	30 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	52.7	55.2	55.5	
48346	Wattle Grove	30 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	53.4	55.7	56.3	
56799	Wattle Grove	30 LYNDRHURST COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	63.6	66	
61792	Wattle Grove	30 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	68.4	66.7	62.1	
42647	Wattle Grove	30 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55	57.3	58.3	
85343	Wattle Grove	30 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54	55.1	55	
14936	Wattle Grove	30 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	61	63.7	62.1	
49038	Wattle Grove	30 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	61.6	58.2	
47582	Wattle Grove	30 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	62.9	69.3	
13470	Wattle Grove	30 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58.5	62.2	62.2	
68436	Wattle Grove	30 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	58.1	60	
13334	Wattle Grove	30 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	68.3	61	51.1	
70400	Wattle Grove	30B LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.2	54.5	54.7	
107467	Wattle Grove	31 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	52.5	51.2	50.7	
42077	Wattle Grove	31 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	57.3	46.3	
34889	Wattle Grove	31 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.8	62	60.7	
45338	Wattle Grove	31 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	68.7	69.3	65.1	
35277	Wattle Grove	31 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	67.1	67.2	53.3	
12724	Wattle Grove	31 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	54.3	53.8	52.6	
95204	Wattle Grove	31 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	66.8	64.6	60.9	
35361	Wattle Grove	31 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64.4	61.2	57.2	
43012	Wattle Grove	31 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	67.5	70.2	
50792	Wattle Grove	31 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.3	55.7	57.3	
85186	Wattle Grove	31 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.6	56	54.5	
50149	Wattle Grove	31 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.5	63.6	58.2	
14928	Wattle Grove	31 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	61.2	56.1	
66635	Wattle Grove	31 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	54.2	53.6	53.3	
32385	Wattle Grove	31 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	59.4	59.2	
101278	Wattle Grove	31 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.2	56	56.1	
31503	Wattle Grove	31 LYNDRHURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	62.5	64.1	
66764	Wattle Grove	31 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	53.1	53.5	54.2	
66035	Wattle Grove	31 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	69.4	66.8	63.8	
96661	Wattle Grove	31 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56.3	56.3	54.2	
50795	Wattle Grove	31 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	48.3	50.6	50.9	
50014	Wattle Grove	31 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	59.7	61.9	
74112	Wattle Grove	31 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.7	53.4	52.8	
93300	Wattle Grove	31 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	63.5	69.1	
24702	Wattle Grove	31 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	64.6	64.2	
21962	Wattle Grove	31 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	61.6	69.6	
41843	Wattle Grove	31 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	58.2	62.5	
41783	Wattle Grove	31 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	65	57.5	
92276	Wattle Grove	31A AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	54.8	54.1	53.9	
101764	Wattle Grove	31A BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.3	55.6	47.8	
38062	Wattle Grove	32 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	57.7	54.3	
96302	Wattle Grove	32 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.1	56.1	53.3	
38353	Wattle Grove	32 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	63.1	63.7	62.7	
52489	Wattle Grove	32 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.6	55.1	54.4	
20013	Wattle Grove	32 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62	62.9	57.5	
104261	Wattle Grove	32 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	54.8	47.1	45.8	
66700	Wattle Grove	32 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	53.1	54.8	55.6	
23163	Wattle Grove	32 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	69.7	66.7	61.8	
18814	Wattle Grove	32 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	68.1	71.5	
37477	Wattle Grove	32 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	63.9	66.1	68	
19318	Wattle Grove	32 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.4	55.4	55.5	
55037	Wattle Grove	32 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.4	56.8	47.1	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
26746	Wattle Grove	32 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	57.1	57.4	
14747	Wattle Grove	32 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	54.5	54.5	49.6	
27578	Wattle Grove	32 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	56.8	57	
10468	Wattle Grove	32 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.3	54	53.9	
76113	Wattle Grove	32 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.9	54.4	54.6	
32916	Wattle Grove	32 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	60	66.3	
23595	Wattle Grove	32 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	69.2	69.2	61.2	
41424	Wattle Grove	32 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	55.9	56.6	
90624	Wattle Grove	32 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.9	54.3	54.6	
14813	Wattle Grove	32 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	60.9	60.8	
97908	Wattle Grove	32 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	60.9	61.6	
23031	Wattle Grove	32 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58.7	62.5	65.6	
86876	Wattle Grove	32 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	58.1	60.2	
20852	Wattle Grove	32 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	68.4	61.5	49.9	
104445	Wattle Grove	33 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.7	56.6	52.4	
57330	Wattle Grove	33 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.8	62.9	55	
79879	Wattle Grove	33 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	69.4	69.4	67.2	
92343	Wattle Grove	33 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.9	58.8	52.5	
48934	Wattle Grove	33 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	67.6	70.6	60.3	
85892	Wattle Grove	33 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56.4	56.3	55.6	
51812	Wattle Grove	33 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	66.8	64.7	61	
22718	Wattle Grove	33 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	61.5	57.2	
25443	Wattle Grove	33 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	68.4	68.8	
13479	Wattle Grove	33 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55	55.4	54.1	
79232	Wattle Grove	33 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	69.2	66.6	59.1	
48821	Wattle Grove	33 FERLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	55	50.9	
57538	Wattle Grove	33 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	53.9	53.8	53.2	
60716	Wattle Grove	33 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	56.1	56.5	55.9	
47666	Wattle Grove	33 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	63.2	64.2	
35552	Wattle Grove	33 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	53	53.1	54.2	
74080	Wattle Grove	33 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	55.7	56	54.5	
24123	Wattle Grove	33 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	59.8	59.9	
81182	Wattle Grove	33 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	62	63.4	
42733	Wattle Grove	33 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	62.3	61.7	
95586	Wattle Grove	33 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	62.1	69.1	
91983	Wattle Grove	33 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	59.2	61.9	
40478	Wattle Grove	33 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.1	64.2	60.3	
54481	Wattle Grove	34 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	56.3	54.2	
83799	Wattle Grove	34 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	55.6	54.3	53.4	
42428	Wattle Grove	34 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	63.1	63.9	62.3	
48119	Wattle Grove	34 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.7	57.6	54.6	
21141	Wattle Grove	34 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	64.7	56.1	
72235	Wattle Grove	34 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.1	53.6	52.8	
6924	Wattle Grove	34 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	58.7	58.5	53.5	
27542	Wattle Grove	34 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	68.1	71.3	
23169	Wattle Grove	34 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.7	55.2	55.5	
72526	Wattle Grove	34 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.7	58.2	59.8	
27953	Wattle Grove	34 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	54.1	50.9	50.7	
43688	Wattle Grove	34 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	52.1	54	53.8	
73757	Wattle Grove	34 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.1	54.6	54.6	
10525	Wattle Grove	34 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	63.2	66	
43437	Wattle Grove	34 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	69.3	59.9	51.1	
39059	Wattle Grove	34 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	56.9	58.2	
46099	Wattle Grove	34 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.9	54.4	54.6	
27719	Wattle Grove	34 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	63.9	62.2	
12730	Wattle Grove	34 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	60.6	61.4	
65434	Wattle Grove	34 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58.6	61.1	61.5	
54793	Wattle Grove	34 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	58.3	60.4	
35536	Wattle Grove	34 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	68.2	64.1	56.9	
67659	Wattle Grove	35 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56	54	52.9	
11556	Wattle Grove	35 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	63.1	62.7	56.1	
97250	Wattle Grove	35 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	69.4	69.4	52.8	
71279	Wattle Grove	35 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.9	57.6	51	
49271	Wattle Grove	35 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	69.3	64.9	60.9	
81070	Wattle Grove	35 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64.7	61.1	58.4	
5002	Wattle Grove	35 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	67.9	67.4	
66866	Wattle Grove	35 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54	55.9	57.3	
91251	Wattle Grove	35 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	69.3	64.2	59.8	
46418	Wattle Grove	35 FERLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	61.4	59.3	
55354	Wattle Grove	35 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	52.9	53.8	53.9	
50969	Wattle Grove	35 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	59	62.6	65.4	
86536	Wattle Grove	35 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	52.9	53.9	54.1	
81773	Wattle Grove	35 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	54.7	54.6	53.6	
74538	Wattle Grove	35 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.6	55.7	55.8	
11912	Wattle Grove	35 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57	57.2	56.9	
51264	Wattle Grove	35 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	58	60.3	66.9	
18340	Wattle Grove	35 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	61.7	63.8	
94583	Wattle Grove	35 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	61.6	68.8	
43289	Wattle Grove	3-5 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	53.6	61.1	
77183	Wattle Grove	35 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	52.9	55.3	56	
9070	Wattle Grove	35 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.5	62.7	55.2	
90956	Wattle Grove	36 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	58.1	56.2	54.1	
103012	Wattle Grove	36 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.6	56.4	53.4	
79706	Wattle Grove	36 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.5	62.6	60.7	
67722	Wattle Grove	36 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	63.5	60.3	
29734	Wattle Grove	36 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	65.1	56.6	
11116	Wattle Grove	36 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56.4	56.3	55.3	
54621	Wattle Grove	36 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	68.2	71.3	
25963	Wattle Grove	36 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.6	57.5	57.7	
39180	Wattle Grove	36 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.7	57.5	54.8	
81462	Wattle Grove	36 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	53.5	54.4	53.5	
76526	Wattle Grove	36 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.2	54.8	54.5	
60234	Wattle Grove	36 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	59.5	56.6	
11031	Wattle Grove	36 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	58.1	57.6	
29044	Wattle Grove	36 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.8	54.1	54.4	
15398	Wattle Grove	36 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	63.3	54.4	
39229	Wattle Grove	36 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	59	61.1	62.3	
55350	Wattle Grove	36 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58.3	61.5	67	
91152	Wattle Grove	36 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.9	58.4	60.5	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
3813		36 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	67.6	52.8	48.2
72287		36A BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.9	54.8	47.5
97386		36B BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56	55.4	54.2
104500		37 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	56.2	55.8
49943		37 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.3	62.4	55.4
54095		37 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.7	55	54.9
77207		37 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	54.6	55	52.4
56784		37 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64.5	62.1	57.3
51482		37 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	67.8	68.3
84096		37 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.4	54.2	55.7
15534		37 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.3	51.8	55.7
24218		37 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	67.3	64.3	59.8
101406		37 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55	55.7	55.8
66300		37 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	63.6	65.6
12217		37 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	57.9	54.3
27821		37 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	64.6	71.1
15383		37 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	61.7	62.9
10504		37 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	62.6	64.4
92158		37 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.9	56.9	62.6
21572		37 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.2	64.7	61.2
30881		38 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	67.3	67.3	57.6
41610		38 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	67	60.9
35343		38 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56.2	50.3	52.1
29455		38 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	65	70.8	73.2
81325		38 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.5	56.3	57.7
97297		38 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.2	58	54.6
50771		38 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	54.5	54.5	53.5
76973		38 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	61.1	64.1
18071		38 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	57.3	57.4
58779		38 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.7	54.4	54.4
25030		38 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	61.5	61.8
20065		38 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.8	59.5	60.5
11043		38 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	58.5	62.5
14290		38 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.9	65.8	61.8
92644		38B LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.8	56.4	55.5
64303		39 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	64.1	64.8	59.5
60370		39 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.1	55.9	53
92579		39 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	54	53.5	52.7
68178		39 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	66.9	61.3	57.3
32585		39 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	66.7	68.3
42861		39 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.4	53.5	55.9
19871		39 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.1	51.3	52.6
83406		39 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.5	55.7	53.4
24721		39 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	62.4	66.1
45737		39 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	58.8	59.7
14249		39 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	61.6	61.8
66108		39 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	62.4	65.3
77751		39 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	56	60.8	62.3
39370		39 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66	64.4	54.5
104550		3A BUNA STREET HOLSWORTHY	RES	52	42	42	47	47	55.3	55.9	56
82245		3A WAU PLACE HOLSWORTHY	RES	52	42	42	47	47	53.1	53.6	43.9
95459		3B WAU PLACE HOLSWORTHY	RES	52	42	42	47	47	54.3	55	55
81515		4 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	58.9	55.9
5606		4 ALEXANDRIA COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	56.7	52.9
85358		4 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	55.4	53.4	52.3
41727		4 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	60.5	56.2
61195		4 ANEURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	54.7	53.7
24972		4 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	59.6	59.2
24503		4 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	61.3	59.8
38379		4 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	63	56.3
23609		4 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	61.3	59.5	58.5
22971		4 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	62	50
49972		4 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	54.3	55.4	54.7
72107		4 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	60.9	59.2
23709		4 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	62	63.9	62
85226		4 BENA BENA PLACE HOLSWORTHY	RES	52	42	42	47	47	54.3	51.8	50.8
39476		4 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	59.1	47.5
86124		4 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	58.7	58.4
78009		4 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.8	56.4	55.5
25847		4 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67	65.9	53.1
91057		4 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	65.4	56.9
101339		4 BRUNEI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.8	44.8	44.2
25335		4 BUNA STREET HOLSWORTHY	RES	52	42	42	47	47	55.6	55.6	53.7
85840		4 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	59.7	59.3
48545		4 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	62.5	47.7
40233		4 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	60.3	59.2
61116		4 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.3	56.6	56.5
53388		4 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	63.9	60.9
23708		4 CLIVEDEN COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	59.4	61.3
44867		4 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	60	60.6	57.7
99150		4 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	59.1	59.9	55.6
9345		4 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	56.8	49.9
26650		4 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	59.4	52.7
64276		4 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	54.6	53
33138		4 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	61.9	62.1
58294		4 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.7	64.7	64.3
39287		4 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.6	59.1	56.7
92405		4 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	54	55.7	55.2
104197		4 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.8	55.8	52.7
85799		4 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	58.7	56.2
13046		4 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	59.5	55.8
20955		4 ELDERSLIE COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	64.5	65.3
15923		4 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	62.5	61.3
59771		4 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	59.8	46.3
78388		4 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	59	61.4	60.6
64039		4 EUMUNG COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	61.3	58.1
55047		4 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	54.5	55.8	56.6
39014		4 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	65.1	64.1
26238		4 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	58.7	57.8

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
34555	Wattle Grove	4 FERLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	51.6	45.7
68640	Wattle Grove	4 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	54.7	56.8	58.5
94171	Wattle Grove	4 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	56.5	56.6	56
44201	Wattle Grove	4 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	62.2	59.3
3199	Wattle Grove	4 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	54.5	59.4
35338	Wattle Grove	4 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	63.6	60.1
91014	Wattle Grove	4 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	63.5	64.5	57.5
28556	Wattle Grove	4 HAMPTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	59.8	58.4
96243	Wattle Grove	4 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	57.4	57.6
33718	Wattle Grove	4 HAVILAH COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	61.8	49.9
78403	Wattle Grove	4 HICKORY MEWS WATTLE GROVE	RES	52	42	42	47	47	57.9	57.8	54.4
96575	Wattle Grove	4 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54	55.7	54.9
19184	Wattle Grove	4 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	61.2	49.3
19935	Wattle Grove	4 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	57.8	57
93347	Wattle Grove	4 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	64.1	65.9
81586	Wattle Grove	4 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	53.5	53.8	55.3
72097	Wattle Grove	4 KESAWAI PLACE HOLSWORTHY	RES	52	42	42	47	47	56.3	56.4	56.3
12021	Wattle Grove	4 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	60.7	60.9
6826	Wattle Grove	4 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	55	55.9	55.6
26955	Wattle Grove	4 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	57.5	58.5
50273	Wattle Grove	4 KIRKHAM MEWS WATTLE GROVE	RES	52	42	42	47	47	58.9	61.4	63.6
10346	Wattle Grove	4 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	58	57.2	53.9
61499	Wattle Grove	4 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.9	54.4	54.6
69727	Wattle Grove	4 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	61.8	61.5
55288	Wattle Grove	4 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	66.3	66.4
56406	Wattle Grove	4 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	60.5	62.7
32680	Wattle Grove	4 LINIFOLIA MEWS WATTLE GROVE	RES	52	42	42	47	47	60.5	60	58.7
2390	Wattle Grove	4 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	61.9	58.6
64547	Wattle Grove	4 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	65	65.8
96011	Wattle Grove	4 MALLEE COURT WATTLE GROVE	RES	52	42	42	47	47	52.3	53.3	53.8
33757	Wattle Grove	4 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	55.5	55.6	46.3
11507	Wattle Grove	4 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	61.9	59.8
28905	Wattle Grove	4 MCKINNON CLOSE HOLSWORTHY	RES	52	42	42	47	47	55.1	55.7	53.1
66241	Wattle Grove	4 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	61.7	64.5
29545	Wattle Grove	4 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	62.1	62.2
87060	Wattle Grove	4 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.5	56.5	56.3
57736	Wattle Grove	4 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	58	55.9	54.2
58386	Wattle Grove	4 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	53.8	50
51180	Wattle Grove	4 MURNDAL COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	68.2	72.6
37415	Wattle Grove	4 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	60	54.4
56162	Wattle Grove	4 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	62.5	62.4
43516	Wattle Grove	4 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	61	59.2	57.6
10988	Wattle Grove	4 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	61.1	57.8
43958	Wattle Grove	4 PILLIGA COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	56.3	56.3
12075	Wattle Grove	4 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	57	61.7	66.9
60260	Wattle Grove	4 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.1	53.4	53.2
12180	Wattle Grove	4 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	61.8	67.4
9885	Wattle Grove	4 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	59.5	61.1
12188	Wattle Grove	4 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	62	64.8	67.8
22531	Wattle Grove	4 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	57.5	58.8
36286	Wattle Grove	4 TALBOT COURT WATTLE GROVE	RES	52	42	42	47	47	68.3	60.1	56.7
70562	Wattle Grove	4 TARAKAN STREET HOLSWORTHY	RES	52	42	42	47	47	56.1	55.9	55
38825	Wattle Grove	4 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	56.2	55
9201	Wattle Grove	4 TOCAL COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	57.8	55.2
32766	Wattle Grove	4 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	63.3	59.3	54
14967	Wattle Grove	4 TRENTAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	59.4	62.4
86772	Wattle Grove	4 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	57.9	51.8
87414	Wattle Grove	4 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	62.7	49.4
90012	Wattle Grove	4 VILLAGE WAY HOLSWORTHY	RES	52	42	42	47	47	55.7	55.3	55.2
39136	Wattle Grove	4 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	57	62.1	67.3
2838	Wattle Grove	4 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.2	65	67.2
75979	Wattle Grove	4 WAU PLACE HOLSWORTHY	RES	52	42	42	47	47	54.3	56.1	55.1
51016	Wattle Grove	4 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	55.9	55.4	54.3
49697	Wattle Grove	4 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.5	56.4	57.9
28169	Wattle Grove	4 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	54.4	54.8
38856	Wattle Grove	4 WOLLEMI COURT WATTLE GROVE	RES	52	42	42	47	47	56	58	58.7
11934	Wattle Grove	4 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	64.6	68.9
50232	Wattle Grove	4 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	58.6	58.3
71254	Wattle Grove	40 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.6	63	61
35587	Wattle Grove	40 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	64.2	58.2
46059	Wattle Grove	40 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.5	55.2	54.8
8955	Wattle Grove	40 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	63.2	65.6	61.3
95215	Wattle Grove	40 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	54.1	43.2	42.9
8578	Wattle Grove	40 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	68.4	71
80433	Wattle Grove	40 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56	57.2	57.7
42602	Wattle Grove	40 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.6	56.2	55.3
9896	Wattle Grove	40 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	53.9	53.8	53.4
30242	Wattle Grove	40 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.4	54.2	54.5
81056	Wattle Grove	40 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	59.1	55.2
58072	Wattle Grove	40 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.1	53.9	54.4
32699	Wattle Grove	40 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.9	58.5	58.5
93162	Wattle Grove	40 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	59.1	61.3
39632	Wattle Grove	40 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	67	65.3	52.9
78446	Wattle Grove	41 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.4	55.3	54.5
35049	Wattle Grove	41 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	66.2	61.4	58
65997	Wattle Grove	41 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.3	68	68.3
47224	Wattle Grove	41 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.2	53.6	51.7
23917	Wattle Grove	41 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.5	57.6	53.3
39340	Wattle Grove	41 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.6	52.9	52.6
86457	Wattle Grove	41 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	62	65.9
63932	Wattle Grove	41 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	55.9	59	59.6
21460	Wattle Grove	41 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	61.6	62.9
54340	Wattle Grove	41 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	60.7	64.4
90423	Wattle Grove	41 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	59.2	63.2
26697	Wattle Grove	41 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	67.8	63.2	59.8
46726	Wattle Grove	42 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	65.5	64	57.8
89402	Wattle Grove	42 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56	55	54.3
42118	Wattle Grove	42 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	65.8	59.1
97177	Wattle Grove	42 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.3	55	54.3

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
53722	Wattle Grove	42 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	68.5	70.9	
56006	Wattle Grove	42 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.2	55.4	55.7	
101882	Wattle Grove	42 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.2	57.2	51.9	
27358	Wattle Grove	42 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	54.4	53.7	51.5	
47310	Wattle Grove	42 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.1	54.2	54.5	
83407	Wattle Grove	42 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	51.9	52.1	
77716	Wattle Grove	42 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.4	53.9	54	
82551	Wattle Grove	42 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.7	58.7	62.1	
22221	Wattle Grove	42 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	66.9	65.7	61.6	
82565	Wattle Grove	43 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.4	55.2	54.9	
44843	Wattle Grove	43 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	61.5	58.4	
43635	Wattle Grove	43 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	66.1	68.3	
23535	Wattle Grove	43 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.4	57.2	57.4	
46564	Wattle Grove	43 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.1	56.3	50.4	
47332	Wattle Grove	43 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	56.7	57.2	55.9	
83345	Wattle Grove	43 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	61	56	
40366	Wattle Grove	43 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	55.9	58.9	59.6	
91478	Wattle Grove	43 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	61.1	63.3	
35117	Wattle Grove	43 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	65.9	56.7	50	
61845	Wattle Grove	44 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	64	58.1	
36323	Wattle Grove	44 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	67.5	53.3	
66839	Wattle Grove	44 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.4	55.2	52.7	
20358	Wattle Grove	44 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	68.5	70.6	
46216	Wattle Grove	44 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.8	55.8	56.1	
30978	Wattle Grove	44 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.9	55.7	54.8	
43392	Wattle Grove	44 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.5	56.6	56.9	
47165	Wattle Grove	44 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	60	60.6	59	
83438	Wattle Grove	44 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.4	53.8	53.9	
97073	Wattle Grove	44 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	58.9	62.4	
17004	Wattle Grove	44 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	69.2	66	60.9	
17541	Wattle Grove	45 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	66.4	62.2	59.2	
60924	Wattle Grove	45 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	66.3	67.8	
46110	Wattle Grove	45 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.1	56.6	55.8	
80047	Wattle Grove	45 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	59.1	56.2	47.4	
19017	Wattle Grove	45 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.2	54.4	47.6	
27053	Wattle Grove	45 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	55.7	59	60.7	
71999	Wattle Grove	45 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	60.9	62.6	
71732	Wattle Grove	46 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	58	53.3	
88696	Wattle Grove	46 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.9	55.3	54.9	
78614	Wattle Grove	46 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	65.2	66.1	54.4	
72553	Wattle Grove	46 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56.6	53.7	53.3	
47017	Wattle Grove	46 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	68.6	70.7	
24894	Wattle Grove	46 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.1	55.2	55.9	
22443	Wattle Grove	46 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.8	55.5	54.7	
86442	Wattle Grove	46 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	51	53	53.5	
39418	Wattle Grove	46 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	59.3	56.3	
72617	Wattle Grove	46 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	52.1	46.5	53.6	
88318	Wattle Grove	46 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	59	62.4	
94437	Wattle Grove	47 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	68.2	62.6	58.3	
47192	Wattle Grove	47 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	67.4	67.7	
67938	Wattle Grove	47 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.9	55.4	55.9	
104213	Wattle Grove	47 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.6	58.5	57.3	
42109	Wattle Grove	47 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.1	54.3	54.5	
41672	Wattle Grove	47 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	61.6	63.9	
61386	Wattle Grove	47 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	58.1	58.2	
58005	Wattle Grove	47 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	61.6	62.6	
93505	Wattle Grove	48 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	66	59	56.8	
66446	Wattle Grove	48 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.3	56.8	56.6	
79111	Wattle Grove	48 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	65.3	65.6	58	
33359	Wattle Grove	48 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	56.7	53.9	42.4	
49454	Wattle Grove	48 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63	68.7	70.6	
16519	Wattle Grove	48 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.1	55.8	56.4	
68191	Wattle Grove	48 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.3	57.2	53.9	
70162	Wattle Grove	48 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.1	53.6	54.5	
22485	Wattle Grove	48 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	58	59.7	59.8	
45832	Wattle Grove	48 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.1	53.6	53.8	
27590	Wattle Grove	48 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	62.1	63.1	
86570	Wattle Grove	49 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	58	57.8	50.4	
68545	Wattle Grove	49 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	66.7	64.3	57.7	
54977	Wattle Grove	49 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	67.5	67.6	
74875	Wattle Grove	49 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.9	56.9	57.3	
98062	Wattle Grove	49 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.9	57.6	45.2	
91639	Wattle Grove	49 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	52.4	53.6	52.9	
97629	Wattle Grove	49 LYN DHURST COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	60	56.5	
98320	Wattle Grove	49 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	55.6	46.1	
45799	Wattle Grove	4A CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	58.2	55.8	
12705	Wattle Grove	4B CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	58.7	56.3	
38425	Wattle Grove	4B WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	65.1	64.3	62.1	
10356	Wattle Grove	5 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	55.5	54.6	
104295	Wattle Grove	5 AITAPE PLACE HOLSWORTHY	RES	52	42	42	47	47	56.6	56.6	55.5	
74745	Wattle Grove	5 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	57.8	54.4	
99541	Wattle Grove	5 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.5	57.1	53.6	
35131	Wattle Grove	5 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	54.6	45.7	
62020	Wattle Grove	5 ANEURA COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	49	44.6	
107320	Wattle Grove	5 ANZAC ROAD HOLSWORTHY	RES	52	42	42	47	47	58.4	57.7	54.5	
87870	Wattle Grove	5 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	57.7	56.4	
35095	Wattle Grove	5 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	63.4	60.5	56.6	
50560	Wattle Grove	5 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	61.4	61.3	49.6	
28833	Wattle Grove	5 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	60.8	59	
48728	Wattle Grove	5 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	57.6	57	55.9	
60110	Wattle Grove	5 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	61.6	59.3	
29590	Wattle Grove	5 BENA BENA PLACE HOLSWORTHY	RES	52	42	42	47	47	56.8	56.9	53.6	
48057	Wattle Grove	5 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	58.1	51.6	
65980	Wattle Grove	5 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	56.1	51	
17333	Wattle Grove	5 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.4	54.6	52.9	
30224	Wattle Grove	5 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	65.8	63.9	57.4	
73859	Wattle Grove	5 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	64.6	59.2	
3530	Wattle Grove	5 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	61.9	54	
58104	Wattle Grove	5 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	59.4	54.2	

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
74578	Wattle Grove	5 CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	57.1	56.6
69009	Wattle Grove	5 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	60.1	60.1
66106	Wattle Grove	5 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.9	55.9	57.1
50365	Wattle Grove	5 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	63.1	63.8
78505	Wattle Grove	5 CLIVEDEN COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	58.6	58.8
19688	Wattle Grove	5 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64	60	57
27795	Wattle Grove	5 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	60	58.1	57.1
22805	Wattle Grove	5 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	57.3	58.2	50.3
48342	Wattle Grove	5 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	56.5	55
26018	Wattle Grove	5 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	59.6	49.9
33816	Wattle Grove	5 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	58.8	55.6
25680	Wattle Grove	5 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	66.6	69.5
45810	Wattle Grove	5 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.9	66.1	65.2
26167	Wattle Grove	5 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.4	57.8	55.4
81042	Wattle Grove	5 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	53.8	53.7	53
64400	Wattle Grove	5 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56	55.4	55.4
55203	Wattle Grove	5 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	60.7	58.2
79592	Wattle Grove	5 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	60	59.9	53.9
45187	Wattle Grove	5 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	52.8	49.4
47905	Wattle Grove	5 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	60.4	50.9
57548	Wattle Grove	5 EUMUNG COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	58.8	58
56713	Wattle Grove	5 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	54.3	55.5	57.8
46066	Wattle Grove	5 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	66.3	61.2
35249	Wattle Grove	5 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	58.9	56.2
105264	Wattle Grove	5 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	60.5	57.5
55805	Wattle Grove	5 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	51.5	52.7	53.4
68134	Wattle Grove	5 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	56.2	55	44.4
52943	Wattle Grove	5 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	64.2	64.9
56983	Wattle Grove	5 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	59	57.9	55.1
33924	Wattle Grove	5 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	62.3	57.9
34482	Wattle Grove	5 HAMPTON COURT WATTLE GROVE	RES	52	42	42	47	47	57	57.5	55.7
54131	Wattle Grove	5 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	53.9	56.1	59.1
28571	Wattle Grove	5 HAVILAH COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	62.5	60.5
88684	Wattle Grove	5 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.3	54.7	53
45181	Wattle Grove	5 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58	58.9	58.4
45220	Wattle Grove	5 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	57	59.7	59.7
61087	Wattle Grove	5 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	63.5	66.5
17347	Wattle Grove	5 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	54.6	56.7	56.9
11347	Wattle Grove	5 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	50.2	52.9	54.6
60017	Wattle Grove	5 KESAWAI PLACE HOLSWORTHY	RES	52	42	42	47	47	55.8	55.9	55.7
87208	Wattle Grove	5 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	58	61.1	59.9
52010	Wattle Grove	5 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	54.6	57.1	58.9
25612	Wattle Grove	5 KIRKHAM MEWS WATTLE GROVE	RES	52	42	42	47	47	58.1	62.6	63.3
44585	Wattle Grove	5 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	56.8	55.3	54.1
98990	Wattle Grove	5 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	55.8	55.2
67489	Wattle Grove	5 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	64.2	53.2
24594	Wattle Grove	5 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	68.3	65.6
15846	Wattle Grove	5 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	60	60.8
22729	Wattle Grove	5 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	68.4	67.1	59
48191	Wattle Grove	5 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	61.5	67.3
87496	Wattle Grove	5 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	56	56.3	56.1
39800	Wattle Grove	5 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	64.5	52.3	48.5
85665	Wattle Grove	5 MCKINNON CLOSE HOLSWORTHY	RES	52	42	42	47	47	53.3	53.3	52.6
16050	Wattle Grove	5 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	61.8	63.1
26584	Wattle Grove	5 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	51	57.2
10797	Wattle Grove	5 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.5	55.5	54.8
89897	Wattle Grove	5 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	56.5	56.1	55.1
67760	Wattle Grove	5 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	56.4	56.1
52354	Wattle Grove	5 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.2	53.9	54
33027	Wattle Grove	5 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	60.6	52.1
62176	Wattle Grove	5 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	61.4	60
64169	Wattle Grove	5 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	51.1	45.2
45972	Wattle Grove	5 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	64	50.6	47
73981	Wattle Grove	5 PILLIGA COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	57.9	58.2
48891	Wattle Grove	5 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	61.1	64.2
29148	Wattle Grove	5 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.7	56.1	55.9
100076	Wattle Grove	5 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.1	56	54.1
34533	Wattle Grove	5 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	59.4	61.8
28543	Wattle Grove	5 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	59.3	60
95950	Wattle Grove	5 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	60.1	60.4
8685	Wattle Grove	5 TALBOT COURT WATTLE GROVE	RES	52	42	42	47	47	70.6	69.8	63.1
55149	Wattle Grove	5 TOCAL COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	64.1	60
37138	Wattle Grove	5 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	63.9	62.9
16270	Wattle Grove	5 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	63.5	58.6
54830	Wattle Grove	5 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	58.2	56
35018	Wattle Grove	5 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	47.8	44.7
11297	Wattle Grove	5 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.3	60.5	63.7
49882	Wattle Grove	5 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	62.1	59.7
3253	Wattle Grove	5 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	59.3	63.9	68.3
62061	Wattle Grove	5 WAU PLACE HOLSWORTHY	RES	52	42	42	47	47	55.9	56.5	56.8
75783	Wattle Grove	5 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	55.5	55.4	54.9
20578	Wattle Grove	5 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	55.7	58.1	59.2
58484	Wattle Grove	5 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	58.4	59
82953	Wattle Grove	5 WOLLEMI COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	56.7	52.6
16911	Wattle Grove	5 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	59.1	47.8
27032	Wattle Grove	5 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	63.2	67.5
61424	Wattle Grove	5 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	59.3	58.1
68025	Wattle Grove	50 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	66.1	61.3	59
21760	Wattle Grove	50 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	65.7	66.3	54.3
52705	Wattle Grove	50 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	65.6	71.1	72.3
46292	Wattle Grove	50 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.8	56.6	57.3
17079	Wattle Grove	50 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56	55.5	54.8
78093	Wattle Grove	50 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.2	55.1	54.6
33324	Wattle Grove	50 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	54	62.2	63.5
14255	Wattle Grove	50 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	61.4	62.8
45224	Wattle Grove	50A BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	49.8	54.6	54.4
107497	Wattle Grove	50A BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	52.2	52.9	51.1
92460	Wattle Grove	50B BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.3	54.9	54.6
101874	Wattle Grove	51 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.5	57.4	56.7

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 1	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
10769	Wattle Grove	51 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	66.9	63.9	59.3
20166	Wattle Grove	51 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	66.9	67.4
29941	Wattle Grove	51 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.1	55.5	56.1
42132	Wattle Grove	51 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.8	56	52.7
101549	Wattle Grove	51 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.1	55.6	54.5
58875	Wattle Grove	51 LYNDHURST COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	61.8	63.3
24670	Wattle Grove	51 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	57.9	56.1
25661	Wattle Grove	52 AUSTRALIS AVENUE WATTLE GROVE	RES	52	42	42	47	47	60.8	60.8	58.9
17869	Wattle Grove	52 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	67.1	67	58.7
59231	Wattle Grove	52 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.3	56	51.5
78154	Wattle Grove	52 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	66.2	68.9	56.6
92293	Wattle Grove	52 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	54.9	53.5	52.9
96842	Wattle Grove	52 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.9	54.9	56.7
18366	Wattle Grove	52 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.7	55.8	54.8
51805	Wattle Grove	52 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	52.7	53.3	53.5
35297	Wattle Grove	52 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	61.3	64.2
102410	Wattle Grove	52A LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.9	53.3	53.5
62113	Wattle Grove	53 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.3	55.7	54.6
30864	Wattle Grove	53 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	69.5	63.9	59.4
34717	Wattle Grove	53 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63	66.3	66.3
27069	Wattle Grove	53 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55	56.2	57.5
99618	Wattle Grove	53 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.4	55.4	45.2
90578	Wattle Grove	53 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	52.8	53.9	55.2
17430	Wattle Grove	53 LYNDHURST COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	61.9	65.6
46825	Wattle Grove	53 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	57.9	59
42967	Wattle Grove	54 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	69.6	69.7	55.2
15766	Wattle Grove	54 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	58.5	57.6	57.4
68417	Wattle Grove	54 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	66.1	67.2	62.1
23479	Wattle Grove	54 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	65.8	71.1	71.8
32989	Wattle Grove	54 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.9	55	55.4
8825	Wattle Grove	54 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.1	57.7	55.5
85408	Wattle Grove	54 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	53.8	55	57.1
37650	Wattle Grove	54 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	61.1	62.8
91712	Wattle Grove	55 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.6	57.6	54.8
51442	Wattle Grove	55 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	66.1	66.1
34203	Wattle Grove	55 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.2	56.9	57.2
84267	Wattle Grove	55 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.7	58.6	57.3
72247	Wattle Grove	55 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	52.8	52.8	51
23003	Wattle Grove	55 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	57.5	58.9
40208	Wattle Grove	56 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.9	56.9	54
53324	Wattle Grove	56 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.5	68.7	69.9
29605	Wattle Grove	56 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.9	54.9	56.1
58790	Wattle Grove	56 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.8	57.3	46.9
20364	Wattle Grove	56 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	60	63.8
83854	Wattle Grove	57 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.5	57.5	55.4
26401	Wattle Grove	57 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	66.8	65.9
85702	Wattle Grove	57 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	52.3	57.1	58.6
84920	Wattle Grove	57 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.9	56.6	47.9
89258	Wattle Grove	57 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	52.6	53.7	55.3
26481	Wattle Grove	58 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.9	56.4	54.7
26139	Wattle Grove	58 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	68.9	69.6
56922	Wattle Grove	58 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.9	55.1	56
86192	Wattle Grove	58 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.2	58	55.2
66414	Wattle Grove	58 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	62.4	65.7
89302	Wattle Grove	59 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.1	54.8	54.6
29171	Wattle Grove	59 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	64	67.7	67.8
101633	Wattle Grove	59 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.2	57.2	56.4
69406	Wattle Grove	59 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.9	57.6	56.6
76362	Wattle Grove	59 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.6	55.6	52.5
21385	Wattle Grove	6 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	59.4	55.5
46269	Wattle Grove	6 AITAPE PLACE HOLSWORTHY	RES	52	42	42	47	47	55.4	56	55.2
39499	Wattle Grove	6 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	55.3	52.4
69162	Wattle Grove	6 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	58.6	58.3
62348	Wattle Grove	6 ANEURA COURT WATTLE GROVE	RES	52	42	42	47	47	58	57.3	54.2
105396	Wattle Grove	6 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	57.3	56.7
17714	Wattle Grove	6 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.2	58.2	57.7
38091	Wattle Grove	6 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	59.3	56.4
31584	Wattle Grove	6 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	60.7	54.8
42540	Wattle Grove	6 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	59.9	56.8	51.1
41364	Wattle Grove	6 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	63.2	62.6	50.1
97036	Wattle Grove	6 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.6	56.5	54.4
43565	Wattle Grove	6 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	52.9	54.3	54.9
25711	Wattle Grove	6 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	62	62.8	61.4
43480	Wattle Grove	6 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	64.4	64.7	58.1
11233	Wattle Grove	6 BENA BENA PLACE HOLSWORTHY	RES	52	42	42	47	47	55	55	52
75917	Wattle Grove	6 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	58.8	57.4	51.2
98875	Wattle Grove	6 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	58.1	57	55.1
15130	Wattle Grove	6 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67.2	66	58.9
15030	Wattle Grove	6 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	65.2	59.4
107552	Wattle Grove	6 BRUNEI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.5	55.6	51.5
89069	Wattle Grove	6 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	60.8	60.8	59.8
74995	Wattle Grove	6 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	65.6	60.5	50.1
47383	Wattle Grove	6 CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	56.3	56.4	55.3
91417	Wattle Grove	6 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	60	60.3	59.8
30307	Wattle Grove	6 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.1	56.5	53.3
35805	Wattle Grove	6 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	66.7	65.6
22148	Wattle Grove	6 CLIVEDEN COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	61.1	61.2
74828	Wattle Grove	6 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	58	60.1	59.5
75337	Wattle Grove	6 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	59.4	59.9	49
76340	Wattle Grove	6 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	58.6	55
20083	Wattle Grove	6 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	61.6	47.9
31232	Wattle Grove	6 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	58	55.8
47030	Wattle Grove	6 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	66.6	70.9
13317	Wattle Grove	6 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.8	63.9	64
59943	Wattle Grove	6 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	55.1	53.4	50.1
86506	Wattle Grove	6 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.3	57.4	54.8
30615	Wattle Grove	6 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	60	49	47.6
80021	Wattle Grove	6 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	59.3	47.2
40002	Wattle Grove	6 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	62.4	58.7

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
39782	Wattle Grove	6 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	62.9	57.4	
38011	Wattle Grove	6 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	59.4	60.6	59.8	
26440	Wattle Grove	6 EUMUNG COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	57.5	54.4	
21370	Wattle Grove	6 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	55.7	56.2	
45231	Wattle Grove	6 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	62.1	62.8	65	
65030	Wattle Grove	6 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	59.7	60.3	
45584	Wattle Grove	6 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61.9	60.2	50.9	
52363	Wattle Grove	6 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.1	56.6	57.3	
16494	Wattle Grove	6 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	57.4	57.3	55.2	
38593	Wattle Grove	6 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	60.9	58.6	
57307	Wattle Grove	6 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	62.4	62.4	
36575	Wattle Grove	6 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	59.2	58.2	
39865	Wattle Grove	6 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	64.8	57.4	
19388	Wattle Grove	6 HAMPTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	55.3	54.4	
26912	Wattle Grove	6 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	54.3	55.7	55.9	
56194	Wattle Grove	6 HAVILAH COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	61.1	58.7	
73587	Wattle Grove	6 HICKORY MEWS WATTLE GROVE	RES	52	42	42	47	47	58.4	58.2	44.7	
64340	Wattle Grove	6 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56	54.6	54.9	
3775	Wattle Grove	6 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	59	59.1	
42887	Wattle Grove	6 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	58	58.9	52.7	
22585	Wattle Grove	6 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	61.5	61.9	
51436	Wattle Grove	6 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	56.2	57.2	
33331	Wattle Grove	6 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	53.5	53.8	55.7	
74960	Wattle Grove	6 KESAWAI PLACE HOLSWORTHY	RES	52	42	42	47	47	54.2	55.6	55.5	
47916	Wattle Grove	6 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	60.6	54.6	
92994	Wattle Grove	6 KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	53.9	55.6	
76684	Wattle Grove	6 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	57.7	58.5	
28609	Wattle Grove	6 KIRKHAM MEWS WATTLE GROVE	RES	52	42	42	47	47	59.7	60.6	64.2	
34221	Wattle Grove	6 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	55.7	55.8	54	
58195	Wattle Grove	6 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.1	50.2	47.6	
12478	Wattle Grove	6 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	61.3	62.3	
66379	Wattle Grove	6 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	66.4	66.4	
11331	Wattle Grove	6 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	58.3	56	
21441	Wattle Grove	6 LINIFOLIA MEWS WATTLE GROVE	RES	52	42	42	47	47	59	48.4	45.3	
7084	Wattle Grove	6 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	65.1	51.9	48	
45627	Wattle Grove	6 LYNHURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	64.5	66.9	
79163	Wattle Grove	6 MALLEE COURT WATTLE GROVE	RES	52	42	42	47	47	52.3	52.8	52.5	
30309	Wattle Grove	6 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	54	54	54.2	
4825	Wattle Grove	6 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	57.9	48.1	
38465	Wattle Grove	6 MCKINNON CLOSE HOLSWORTHY	RES	52	42	42	47	47	52.8	50.3	49.9	
30344	Wattle Grove	6 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	60.6	64.2	
33799	Wattle Grove	6 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	64.4	63.8	
15090	Wattle Grove	6 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.4	57.1	56.3	
96905	Wattle Grove	6 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	57.1	57	55.4	
9475	Wattle Grove	6 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	58.1	57.5	
61447	Wattle Grove	6 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56.3	55.1	54.9	
9545	Wattle Grove	6 MURNDAL COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	70.1	73.8	
59534	Wattle Grove	6 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	58.7	58.9	
46661	Wattle Grove	6 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	62	62.2	60.7	
44594	Wattle Grove	6 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	61.2	57.9	
21373	Wattle Grove	6 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	61.4	58.8	
10306	Wattle Grove	6 PILLIGA COURT WATTLE GROVE	RES	52	42	42	47	47	54.9	55.5	55.6	
37442	Wattle Grove	6 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	61.4	64.5	
15263	Wattle Grove	6 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.3	55.4	53.9	
55422	Wattle Grove	6 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	62.1	67.6	
23406	Wattle Grove	6 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	61.8	62.3	
23161	Wattle Grove	6 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	65.6	66.7	
34918	Wattle Grove	6 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	57.6	58.6	
44832	Wattle Grove	6 TALBOT COURT WATTLE GROVE	RES	52	42	42	47	47	68.6	60.5	60.2	
4852	Wattle Grove	6 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	58.9	58.8	
20804	Wattle Grove	6 TOCAL COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	57.4	51.6	
19914	Wattle Grove	6 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	59.9	52.4	
56635	Wattle Grove	6 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	58.9	61	
8815	Wattle Grove	6 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	57.1	52.5	
21430	Wattle Grove	6 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	60.5	57.9	
5420	Wattle Grove	6 VILLAGE WAY WATTLE GROVE	RES	52	42	42	47	47	56.5	56.3	55.7	
60586	Wattle Grove	6 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	59.9	60.1	
9089	Wattle Grove	6 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.5	66.1	69.1	
73087	Wattle Grove	6 WAU PLACE HOLSWORTHY	RES	52	42	42	47	47	55.1	57.2	55.4	
3624	Wattle Grove	6 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	55.4	54.9	54.2	
22303	Wattle Grove	6 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.5	56.5	58	
29055	Wattle Grove	6 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	57	57.8	60.1	
48404	Wattle Grove	6 WOLLEMI COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	59.4	59.3	
81506	Wattle Grove	6 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	64.5	62.4	51.2	
18112	Wattle Grove	6 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	58	62.6	68.8	
49195	Wattle Grove	6 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	63.3	70.2	
63919	Wattle Grove	60 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.7	54.6	54.7	
60393	Wattle Grove	60 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	68.8	69.8	
45292	Wattle Grove	60 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.8	55	56	
23393	Wattle Grove	60 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	60.3	64.3	
75710	Wattle Grove	61 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.2	55.2	54.7	
9560	Wattle Grove	61 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	65.2	67.2	59.1	
61780	Wattle Grove	61 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.6	54.8	55.1	
67834	Wattle Grove	61 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.3	57	48.1	
46688	Wattle Grove	61 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	52.5	53.5	54.9	
43537	Wattle Grove	62 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.5	54.7	54.5	
13423	Wattle Grove	62 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	70.4	70.5	
16901	Wattle Grove	62 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.8	55	56	
62227	Wattle Grove	62 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	58	60.2	62.7	
90918	Wattle Grove	63 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.2	55.1	48.7	
19702	Wattle Grove	63 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56	57.5	57.6	
55877	Wattle Grove	63 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.1	57	55.7	
78999	Wattle Grove	63 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.7	55.6	54.8	
10791	Wattle Grove	64 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	68.8	71.5	
50463	Wattle Grove	64 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.7	54.8	55.3	
56990	Wattle Grove	64 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57	57	46.5	
54197	Wattle Grove	64 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	63.5	64.4	
99875	Wattle Grove	65 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.4	57.3	54.3	
15610	Wattle Grove	65 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.9	57.6	58.2	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
101303	Wattle Grove	65 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.2	58	56.7	
9867	Wattle Grove	65 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.6	54.9	53.7	
18361	Wattle Grove	66 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	66.4	71.2	69.3	
45869	Wattle Grove	66 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.7	54.9	55.2	
86408	Wattle Grove	66 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	55.5	54.9	
15043	Wattle Grove	66 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	61.8	62.6	
93316	Wattle Grove	67 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.3	57.3	56.6	
54052	Wattle Grove	67 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.4	60.8	61	
99801	Wattle Grove	67 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.2	58.2	45.9	
40822	Wattle Grove	68 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	64	68.8	69.4	
46583	Wattle Grove	68 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.4	54.9	55.2	
93240	Wattle Grove	68 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.8	57.8	53.1	
51828	Wattle Grove	68 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	62	64.4	
71711	Wattle Grove	69 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.3	55.3	55.9	
19238	Wattle Grove	69 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.2	58.5	59	
78376	Wattle Grove	69 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.6	59	53.8	
87063	Wattle Grove	6A AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	57.9	56.4	54.5	
53380	Wattle Grove	6B BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	60.1	57.3	
58479	Wattle Grove	7 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	60.4	54.9	
11636	Wattle Grove	7 AITAPE PLACE HOLSWORTHY	RES	52	42	42	47	47	58.1	57.9	55.8	
11575	Wattle Grove	7 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	59.5	55.6	
58803	Wattle Grove	7 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	55.4	55.5	53.3	
54120	Wattle Grove	7 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	56.1	45.6	
27636	Wattle Grove	7 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	57.6	56.4	
29026	Wattle Grove	7 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	61	62.1	59.4	
11135	Wattle Grove	7 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	61.7	62	60.4	
25987	Wattle Grove	7 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	61.5	59.1	
104220	Wattle Grove	7 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	58.3	58.2	52.9	
57779	Wattle Grove	7 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	65.2	65.2	59.8	
81229	Wattle Grove	7 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.6	56.1	54.8	
66814	Wattle Grove	7 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	58	53.4	
12936	Wattle Grove	7 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	61.3	65.4	64	
19233	Wattle Grove	7 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	58.8	53	
49543	Wattle Grove	7 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	61	59.8	
33230	Wattle Grove	7 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	57.4	56.9	53.9	
18174	Wattle Grove	7 BRICKENLOW COURT WATTLE GROVE	RES	52	42	42	47	47	66.4	59.9	49.3	
82684	Wattle Grove	7 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	62.5	62.1	51.6	
32132	Wattle Grove	7 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	60.3	55	
70287	Wattle Grove	7 CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	54.6	53	51.3	
46864	Wattle Grove	7 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	53.2	55.8	
95116	Wattle Grove	7 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.4	56.1	56.1	
57043	Wattle Grove	7 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	58.7	61.6	
37125	Wattle Grove	7 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	65.7	65.7	
83831	Wattle Grove	7 CLIVEDEN COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	58.5	58.8	
15227	Wattle Grove	7 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	60.6	56.8	
22909	Wattle Grove	7 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	60.5	57.3	
73275	Wattle Grove	7 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	57.9	57.9	57.4	
48464	Wattle Grove	7 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	57	56.5	54.7	
65600	Wattle Grove	7 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	59.4	51.8	
43200	Wattle Grove	7 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	57.8	55.8	
79323	Wattle Grove	7 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	66.3	70.1	
37294	Wattle Grove	7 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.2	66.9	66.9	
26769	Wattle Grove	7 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.2	56.1	56.2	
51874	Wattle Grove	7 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	53.7	53.5	52.9	
104278	Wattle Grove	7 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.3	58	56.2	
9128	Wattle Grove	7 ELDON COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	63.1	60.6	
81380	Wattle Grove	7 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	59.1	46.4	
64072	Wattle Grove	7 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.4	60	58.2	
44381	Wattle Grove	7 ELLESHERE COURT WATTLE GROVE	RES	52	42	42	47	47	64	60.8	57.3	
24367	Wattle Grove	7 EUMUNG COURT WATTLE GROVE	RES	52	42	42	47	47	62	62.6	51.1	
58619	Wattle Grove	7 EVANDALE COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	59.3	62.9	
53420	Wattle Grove	7 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	53.8	57	57.2	
34525	Wattle Grove	7 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	65.4	59.8	
60190	Wattle Grove	7 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	58.6	60	
99612	Wattle Grove	7 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	58.8	57	
83772	Wattle Grove	7 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	53.8	54.3	54	
96635	Wattle Grove	7 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	57	57.2	
24559	Wattle Grove	7 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	59	52.2	
52551	Wattle Grove	7 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	62.4	61.5	59.4	
48980	Wattle Grove	7 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	61.7	59.3	
17359	Wattle Grove	7 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	66.8	66.2	57.9	
21450	Wattle Grove	7 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	57.4	57.6	
20910	Wattle Grove	7 HAVILAH COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	55.6	49.7	
48411	Wattle Grove	7 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.1	56.6	55.1	
82346	Wattle Grove	7 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	59.6	59.5	
60225	Wattle Grove	7 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	61.9	62	
38561	Wattle Grove	7 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	56.1	56.3	
16756	Wattle Grove	7 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	52.6	52.2	52.3	
17597	Wattle Grove	7 KESAWAI PLACE HOLSWORTHY	RES	52	42	42	47	47	53.5	53.9	56.8	
69959	Wattle Grove	7 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	61.2	58.9	
37523	Wattle Grove	7 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	56.8	59.1	
94383	Wattle Grove	7 KIRKHAM MEWS WATTLE GROVE	RES	52	42	42	47	47	58.5	60.6	59.7	
45752	Wattle Grove	7 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	56.9	55.1	53.8	
17775	Wattle Grove	7 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	55.7	57.3	57.5	
42452	Wattle Grove	7 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	65.8	54.7	
52951	Wattle Grove	7 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	68.1	63.6	
30744	Wattle Grove	7 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	58.9	59.2	
42786	Wattle Grove	7 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	68.5	66.7	60	
43037	Wattle Grove	7 LYNDHURST COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	67.1	69.5	
85201	Wattle Grove	7 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	55.6	55.8	53.9	
90895	Wattle Grove	7 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	64.9	52	52.6	
21783	Wattle Grove	7 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	61.5	64.1	
49429	Wattle Grove	7 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	64	64.4	61.3	
19591	Wattle Grove	7 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.8	55.5	50.5	
60122	Wattle Grove	7 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	57	57.1	55.6	
26729	Wattle Grove	7 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	56	58.4	57.5	
76026	Wattle Grove	7 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.8	56.2	55.2	
21644	Wattle Grove	7 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	59.5	50.9	
47185	Wattle Grove	7 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	61	63	61.9	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
52709	Wattle Grove	7 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	59.1	55.9	
48371	Wattle Grove	7 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	63.1	61.7	59.1	
19958	Wattle Grove	7 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	60.6	62.3	
66349	Wattle Grove	7 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.1	53.2	53.1	
73562	Wattle Grove	7 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	53.8	55	54.6	
63054	Wattle Grove	7 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	59.5	60.9	
52251	Wattle Grove	7 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	59.1	60	
59009	Wattle Grove	7 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	61.8	68.1	68.4	
48073	Wattle Grove	7 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	57.7	60.2	
15598	Wattle Grove	7 TALBOT COURT WATTLE GROVE	RES	52	42	42	47	47	69.4	67.1	63.1	
51725	Wattle Grove	7 TOCAL COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	64	60	
24844	Wattle Grove	7 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	64	64.9	64.8	
32198	Wattle Grove	7 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	59.3	57.2	
20558	Wattle Grove	7 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	59.4	63.3	
52093	Wattle Grove	7 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	58	55.9	54.4	
24614	Wattle Grove	7 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	60.7	62.7	
35912	Wattle Grove	7 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	64.4	62.7	60.8	
40734	Wattle Grove	7 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	60.2	67	
54373	Wattle Grove	7 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	59.5	63	68	
98334	Wattle Grove	7 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	56.3	55.9	55.8	
88531	Wattle Grove	7 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	55	56.5	56.7	
59984	Wattle Grove	7 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.5	58.6	59.5	
91839	Wattle Grove	7 WOLLEMI COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	58.4	58	
21516	Wattle Grove	7 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	62.5	58.4	
20117	Wattle Grove	7 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	64	69.7	
23902	Wattle Grove	7 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	65.6	68.6	
30918	Wattle Grove	7 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	58.7	58.2	
66371	Wattle Grove	70 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.1	55.6	54.5	
38947	Wattle Grove	70 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	68.8	69.3	
62321	Wattle Grove	70 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56	57.2	57.6	
50577	Wattle Grove	70 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.4	56	55.7	
63645	Wattle Grove	71 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.3	57.3	59.2	
16553	Wattle Grove	71 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58	57.4	47.5	
25536	Wattle Grove	72 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	68.8	69.2	
85302	Wattle Grove	72 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.2	57.4	57.6	
56579	Wattle Grove	72 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.1	57.9	57.5	
9957	Wattle Grove	73 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.4	57.5	59.4	
104241	Wattle Grove	73 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58	56.9	54.3	
65724	Wattle Grove	74 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	68.7	69.1	
89564	Wattle Grove	74 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.6	54.8	55.1	
58741	Wattle Grove	74 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.6	55.5	55	
45983	Wattle Grove	75 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.9	57.5	47.7	
49835	Wattle Grove	75 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.5	58.4	57.7	
45910	Wattle Grove	76 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.1	54.4	55.2	
87843	Wattle Grove	76 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	68.7	69	
72558	Wattle Grove	76 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.4	54.9	57.6	
96345	Wattle Grove	76 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.3	56	50	
22260	Wattle Grove	77 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.7	58.5	59.2	
73972	Wattle Grove	77 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.2	56.7	57.1	
52633	Wattle Grove	78 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.4	54.3	54.9	
40367	Wattle Grove	78 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	68.7	69	
69753	Wattle Grove	78 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.6	54.8	55.2	
32713	Wattle Grove	78 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58	58	55.7	
35370	Wattle Grove	79 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58	59.7	60.8	
40775	Wattle Grove	79 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.9	58.8	55	
31270	Wattle Grove	8 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	57.4	57.4	
58811	Wattle Grove	8 AITAPE PLACE HOLSWORTHY	RES	52	42	42	47	47	54	55.7	55.6	
50289	Wattle Grove	8 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	51.3	46.1	
75024	Wattle Grove	8 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.3	55.4	55.1	
50913	Wattle Grove	8 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	60.2	57.9	
22694	Wattle Grove	8 ANEURA COURT WATTLE GROVE	RES	52	42	42	47	47	60	56.5	44.2	
81010	Wattle Grove	8 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	57.1	56.7	
7050	Wattle Grove	8 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	62.2	59.8	58.3	
61491	Wattle Grove	8 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	59.3	47.1	
19336	Wattle Grove	8 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	63.2	54.1	51.2	
42044	Wattle Grove	8 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	58.7	57	55.4	
28520	Wattle Grove	8 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	64.4	65.8	62.6	
98157	Wattle Grove	8 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	57.2	55.5	53.7	
21002	Wattle Grove	8 BEDDINGTON COURT WATTLE GROVE	RES	52	42	42	47	47	52.9	54.4	55	
16546	Wattle Grove	8 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	61.5	60	54.1	
78177	Wattle Grove	8 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	64	62.8	
31576	Wattle Grove	8 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	58.5	55.7	
49810	Wattle Grove	8 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	60.6	59.9	
38341	Wattle Grove	8 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.7	54.8	53.8	
80621	Wattle Grove	8 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67.4	65.6	59.3	
79513	Wattle Grove	8 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	65.2	58.8	
94216	Wattle Grove	8 BRUNEI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53	53.6	53.3	
88263	Wattle Grove	8 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	60.2	58.9	
17469	Wattle Grove	8 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	66.3	60.4	47.7	
107347	Wattle Grove	8 CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	57.9	55	
61679	Wattle Grove	8 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	62.6	62.7	57.8	
19797	Wattle Grove	8 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	54.1	55.8	57	
51872	Wattle Grove	8 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	57	60	65	
72083	Wattle Grove	8 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	61	65.1	66	
30788	Wattle Grove	8 CLIVEDEN COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	57.7	55.9	
57522	Wattle Grove	8 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	59.1	57.6	
38257	Wattle Grove	8 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	59.6	60.3	48.1	
75878	Wattle Grove	8 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	57.9	55.3	
31282	Wattle Grove	8 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	56.8	55.7	
10060	Wattle Grove	8 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	58.6	55.5	
19775	Wattle Grove	8 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	66.7	70.2	
85789	Wattle Grove	8 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.6	65	64.4	
25569	Wattle Grove	8 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	54.8	55.1	54	
69063	Wattle Grove	8 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.6	54.9	52.5	
32328	Wattle Grove	8 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	58.5	56.1	
70550	Wattle Grove	8 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	57.1	54.8	
5852	Wattle Grove	8 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	62.1	58.6	
72886	Wattle Grove	8 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	61.2	57.7	55.6	
45841	Wattle Grove	8 ESHER MEWS WATTLE GROVE	RES	52	42	42	47	47	58.9	60.4	57	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
66961	Wattle Grove	8 EUMUNG COURT WATTLE GROVE	RES	52	42	42	47	47	60.6	60.2	57.6	
35963	Wattle Grove	8 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	53.6	55.5	56.4	
12929	Wattle Grove	8 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	63.7	64.3	63.7	
77996	Wattle Grove	8 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	58.3	57.7	
65226	Wattle Grove	8 FERNLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	60.9	59.2	55.5	
75331	Wattle Grove	8 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.3	59	60.2	
48498	Wattle Grove	8 GEMAS STREET HOLSWORTHY	RES	52	42	42	47	47	55.9	56.2	52.9	
60668	Wattle Grove	8 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	63.2	63.3	61.5	
39159	Wattle Grove	8 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	59.8	59.2	
39440	Wattle Grove	8 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	61	59.6	
9482	Wattle Grove	8 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64.7	66	57	
27504	Wattle Grove	8 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	58.1	58.4	
66854	Wattle Grove	8 HAVILAH COURT WATTLE GROVE	RES	52	42	42	47	47	61.1	59.9	47.7	
71330	Wattle Grove	8 HICKORY MEWS WATTLE GROVE	RES	52	42	42	47	47	58.2	58.9	44.7	
96205	Wattle Grove	8 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.1	54.2	55.1	
14873	Wattle Grove	8 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	60.5	60.9	
11475	Wattle Grove	8 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	59.4	47.6	
73541	Wattle Grove	8 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	63.8	66.2	
25679	Wattle Grove	8 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	55	56.2	55.5	
84011	Wattle Grove	8 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	52.7	54.6	55.8	
36616	Wattle Grove	8 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	60.9	60.9	
28919	Wattle Grove	8 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	54.7	58.8	60.5	
53128	Wattle Grove	8 KIRKHAM MEWS WATTLE GROVE	RES	52	42	42	47	47	59.4	62.8	64.3	
76311	Wattle Grove	8 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	55.6	55.2	54	
50880	Wattle Grove	8 LAE ROAD HOLSWORTHY	RES	52	42	42	47	47	54.6	51.7	45.2	
58929	Wattle Grove	8 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	62.3	66.6	66.6	
11037	Wattle Grove	8 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	58.7	60.6	
39096	Wattle Grove	8 LINIFOLIA MEWS WATTLE GROVE	RES	52	42	42	47	47	59.9	59.7	54.8	
19649	Wattle Grove	8 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	66.7	65.3	60.7	
15838	Wattle Grove	8 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	63.7	67	
62407	Wattle Grove	8 MALLEE COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	54.9	54.1	
46227	Wattle Grove	8 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	64	58.1	
60911	Wattle Grove	8 MCKINNON CLOSE HOLSWORTHY	RES	52	42	42	47	47	51.4	51.4	51.2	
38874	Wattle Grove	8 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	60	63.3	
101484	Wattle Grove	8 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	56	55.7	54.1	
59158	Wattle Grove	8 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	52.7	52.6	51.8	
10383	Wattle Grove	8 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	55.4	56.4	56.5	
101891	Wattle Grove	8 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.8	55.8	55	
67145	Wattle Grove	8 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	60.5	60.6	
42270	Wattle Grove	8 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	61.9	60.5	
22430	Wattle Grove	8 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	59	58.5	56	
43173	Wattle Grove	8 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	63.6	61	58.2	
29892	Wattle Grove	8 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	60.7	65.1	
72563	Wattle Grove	8 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	53.1	53.3	53.2	
19150	Wattle Grove	8 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	62.8	69	
65130	Wattle Grove	8 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	59.8	61.8	
48029	Wattle Grove	8 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	58.9	65.7	65.2	
56813	Wattle Grove	8 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	56.2	57.7	58.6	
8924	Wattle Grove	8 TALBOT COURT WATTLE GROVE	RES	52	42	42	47	47	68.7	56.7	50	
84492	Wattle Grove	8 TARAKAN STREET HOLSWORTHY	RES	52	42	42	47	47	53.9	53.8	51.9	
56235	Wattle Grove	8 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	52	50.7	
95899	Wattle Grove	8 TOCAL COURT WATTLE GROVE	RES	52	42	42	47	47	63.8	56.5	51.2	
81027	Wattle Grove	8 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	63.9	63.1	
84438	Wattle Grove	8 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	59.6	55.9	
2929	Wattle Grove	8 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	59.9	60.1	
21118	Wattle Grove	8 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	60.2	57.6	
22007	Wattle Grove	8 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	64.3	59.5	
29214	Wattle Grove	8 VILLAGE WAY WATTLE GROVE	RES	52	42	42	47	47	58.3	58.6	58	
61854	Wattle Grove	8 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	60.5	60.6	
56413	Wattle Grove	8 WATTLE GROVE DRIVE WATTLE GROVE	RES	52	42	42	47	47	60.4	65.8	68.1	
79778	Wattle Grove	8 WAU PLACE HOLSWORTHY	RES	52	42	42	47	47	57	57.6	57.7	
12535	Wattle Grove	8 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	55.5	55.6	54.1	
43217	Wattle Grove	8 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	54.4	56.8	58	
66996	Wattle Grove	8 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	59.4	59.6	
82292	Wattle Grove	8 WOLLEMI COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	57.6	58.6	
41838	Wattle Grove	8 WOODLAKE COURT WATTLE GROVE	RES	52	42	42	47	47	64.2	62.6	48.5	
56343	Wattle Grove	8 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	60.4	65.1	66.3	
92855	Wattle Grove	8 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	63.5	70.7	
42631	Wattle Grove	80 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	64.4	68.7	68.9	
65646	Wattle Grove	80 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.6	54.8	55.2	
33428	Wattle Grove	80 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.5	57.2	56.4	
17013	Wattle Grove	81 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.6	55.4	54.6	
53636	Wattle Grove	81 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.2	59.1	61.1	
74302	Wattle Grove	81 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.2	57.8	52.7	
26492	Wattle Grove	82 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	66.8	70.1	61.4	
28369	Wattle Grove	82 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.8	55.4	55	
22640	Wattle Grove	82B BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	53.7	54.1	54.1	
98566	Wattle Grove	83 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.5	56.2	54.7	
41712	Wattle Grove	83 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58	60.1	60.4	
58078	Wattle Grove	83 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.7	55.8	56.3	
93339	Wattle Grove	84 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	53.7	53.9	53.8	
31013	Wattle Grove	84 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.2	56.2	50.1	
80049	Wattle Grove	85 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.5	57.1	54.6	
70363	Wattle Grove	85 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	58.2	58.8	61.2	
35039	Wattle Grove	85 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.1	56.4	56.4	
91538	Wattle Grove	86 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.3	54.4	54.2	
25181	Wattle Grove	86 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55	57.5	58.6	
51319	Wattle Grove	86 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.1	57.1	53.1	
90695	Wattle Grove	87 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56.3	56.4	54.6	
22696	Wattle Grove	87 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.6	60.4	60.8	
30029	Wattle Grove	87 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.1	57	55.5	
10093	Wattle Grove	88 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	53.5	53.8	53.8	
10885	Wattle Grove	88 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.8	54.3	52.3	
56965	Wattle Grove	88 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.7	57.7	55.8	
72877	Wattle Grove	89 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.5	59.8	53.7	
66912	Wattle Grove	89B BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	52.9	54.7	54.7	
54731	Wattle Grove	8A KINCHEGA COURT HOLSWORTHY	RES	52	42	42	47	47	54.5	55	54.9	
66119	Wattle Grove	8A KINCHEGA COURT WATTLE GROVE	RES	52	42	42	47	47	54.8	54.5	54.8	
43061	Wattle Grove	8B BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.2	55	54	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
78688	Wattle Grove	9 ACOLA COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	58	56.2	
47977	Wattle Grove	9 AITAPE PLACE HOLSWORTHY	RES	52	42	42	47	47	56.4	57.6	55.5	
47153	Wattle Grove	9 ALEXANDRINA COURT WATTLE GROVE	RES	52	42	42	47	47	60.1	58.4	54.7	
24289	Wattle Grove	9 AMBON ROAD HOLSWORTHY	RES	52	42	42	47	47	56.7	54.8	53.3	
18515	Wattle Grove	9 ANCURA COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	58.1	48.5	
12643	Wattle Grove	9 ARROWFIELD DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.9	61.8	58.1	
9609	Wattle Grove	9 BAILEYANA COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	59.2	57.9	
22420	Wattle Grove	9 BALALA COURT WATTLE GROVE	RES	52	42	42	47	47	62.2	61.6	59.1	
50155	Wattle Grove	9 BANKSIA PLACE WATTLE GROVE	RES	52	42	42	47	47	58.7	58.6	48.5	
75765	Wattle Grove	9 BANYULE COURT WATTLE GROVE	RES	52	42	42	47	47	67.4	67.3	58.8	
69511	Wattle Grove	9 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.2	55.1	52.6	
38774	Wattle Grove	9 BEDERVALE COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	52.1	53.5	
15768	Wattle Grove	9 BELTANA COURT WATTLE GROVE	RES	52	42	42	47	47	64.5	67.3	59.1	
53482	Wattle Grove	9 BODALLA COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	59.3	53.6	
63450	Wattle Grove	9 BOOREE COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	61.8	61.3	
37314	Wattle Grove	9 BRALLOS AVENUE HOLSWORTHY	RES	52	42	42	47	47	55.2	54.5	52.8	
64060	Wattle Grove	9 BRICKENDON COURT WATTLE GROVE	RES	52	42	42	47	47	67.1	63.6	60.2	
44641	Wattle Grove	9 BROWNLOW COURT WATTLE GROVE	RES	52	42	42	47	47	62.8	64.3	60.9	
62072	Wattle Grove	9 CASTLE ROCK COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	61.3	59	
38714	Wattle Grove	9 CASUARINA COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	57.5	54.1	
38445	Wattle Grove	9 CENTENNIAL PARK COURT WATTLE GROVE	RES	52	42	42	47	47	59	60.7	60.8	
42232	Wattle Grove	9 CHELSEA GARDEN COURT WATTLE GROVE	RES	52	42	42	47	47	55.2	55.7	55.6	
18778	Wattle Grove	9 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	61.1	62	
23503	Wattle Grove	9 CLARENDON COURT WATTLE GROVE	RES	52	42	42	47	47	64.1	66.4	66.5	
62508	Wattle Grove	9 CLIVEDEN COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	60.3	59.4	
53192	Wattle Grove	9 COMO COURT WATTLE GROVE	RES	52	42	42	47	47	64.7	62	54.9	
12568	Wattle Grove	9 CONFERTA COURT WATTLE GROVE	RES	52	42	42	47	47	59.5	59.8	58.3	
73822	Wattle Grove	9 CONROY ROAD WATTLE GROVE	RES	52	42	42	47	47	58.5	61	59.9	
49477	Wattle Grove	9 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	56.8	54.8	53	
22345	Wattle Grove	9 COOMA COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	59.3	53.8	
23673	Wattle Grove	9 CORRIN COURT WATTLE GROVE	RES	52	42	42	47	47	59	57.8	56.5	
38190	Wattle Grove	9 CORRYTON COURT WATTLE GROVE	RES	52	42	42	47	47	60	65.4	70.6	
64488	Wattle Grove	9 CRESSBROOK DRIVE WATTLE GROVE	RES	52	42	42	47	47	61.8	66	66.2	
55714	Wattle Grove	9 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	57.2	57	55.4	
31097	Wattle Grove	9 DAMOUR STREET HOLSWORTHY	RES	52	42	42	47	47	54.5	54.6	52.1	
68534	Wattle Grove	9 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.2	55.7	55	
61458	Wattle Grove	9 EILDON COURT WATTLE GROVE	RES	52	42	42	47	47	59.2	59.7	55.4	
21237	Wattle Grove	9 ELATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	58.1	46.1	
7059	Wattle Grove	9 ELLERSTON COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	52	48.6	
50732	Wattle Grove	9 ELLESMERE COURT WATTLE GROVE	RES	52	42	42	47	47	64.4	60.9	57.4	
45449	Wattle Grove	9 EVANDALE COURT WATTLE GROVE	RES	52	42	42	47	47	56.1	59.6	62.6	
63690	Wattle Grove	9 EXBURY COURT WATTLE GROVE	RES	52	42	42	47	47	53.7	55.6	57.1	
48590	Wattle Grove	9 EXFORD COURT WATTLE GROVE	RES	52	42	42	47	47	64.3	64.7	59.6	
12639	Wattle Grove	9 FARNBOROUGH COURT WATTLE GROVE	RES	52	42	42	47	47	58.7	60.8	61	
17398	Wattle Grove	9 FERMLEAF COURT WATTLE GROVE	RES	52	42	42	47	47	61	60.8	53.1	
42769	Wattle Grove	9 FINSCHHAFEN STREET HOLSWORTHY	RES	52	42	42	47	47	54.4	54.9	54.5	
75560	Wattle Grove	9 GATLEY COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	59.5	59.7	
11717	Wattle Grove	9 GLANARA COURT WATTLE GROVE	RES	52	42	42	47	47	63.9	59.2	57.1	
15211	Wattle Grove	9 GLENGYLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	61.2	58.2	
17827	Wattle Grove	9 GLENROCK COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	61.8	58.6	
86544	Wattle Grove	9 GRACEMERE COURT WATTLE GROVE	RES	52	42	42	47	47	62.7	68.2	63.1	
32424	Wattle Grove	9 HAUGHTON COURT WATTLE GROVE	RES	52	42	42	47	47	52	57.2	55.3	
54191	Wattle Grove	9 HUON CRESCENT HOLSWORTHY	RES	52	42	42	47	47	54.3	55.2	54.6	
83961	Wattle Grove	9 HYDE PARK COURT WATTLE GROVE	RES	52	42	42	47	47	57.8	60.4	57.6	
81673	Wattle Grove	9 IMPLEXA COURT WATTLE GROVE	RES	52	42	42	47	47	58	56.6	54.8	
17625	Wattle Grove	9 JIMBOUR COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	60.1	62.5	
40162	Wattle Grove	9 KANANGRA COURT WATTLE GROVE	RES	52	42	42	47	47	54.7	55.2	55.3	
19431	Wattle Grove	9 KAPUTAR COURT WATTLE GROVE	RES	52	42	42	47	47	53.8	53.8	52.3	
91984	Wattle Grove	9 KEW GARDENS COURT WATTLE GROVE	RES	52	42	42	47	47	55.9	59.3	59.4	
39272	Wattle Grove	9 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	55.3	56.7	59.6	
27783	Wattle Grove	9 LABUAN ROAD HOLSWORTHY	RES	52	42	42	47	47	56.9	55	53.8	
55656	Wattle Grove	9 LANYON COURT WATTLE GROVE	RES	52	42	42	47	47	62.9	65.5	53.6	
97304	Wattle Grove	9 LARRA COURT WATTLE GROVE	RES	52	42	42	47	47	62.5	67.7	64.6	
40083	Wattle Grove	9 LEESWOOD COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	59.5	59.5	
36649	Wattle Grove	9 LOMOND COURT WATTLE GROVE	RES	52	42	42	47	47	68.5	66	61	
47562	Wattle Grove	9 LYNDBURST COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	63.1	67.3	
7405	Wattle Grove	9 MARKHAM STREET HOLSWORTHY	RES	52	42	42	47	47	56.1	56.8	57	
97402	Wattle Grove	9 MARTINDALE COURT WATTLE GROVE	RES	52	42	42	47	47	67.1	51.7	50.7	
64854	Wattle Grove	9 MERRANG COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	60.6	64.5	
40851	Wattle Grove	9 MERRYVILLE COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	59.4	58.7	
34732	Wattle Grove	9 MIRI CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.3	56.1	55.6	
33496	Wattle Grove	9 MIVO STREET HOLSWORTHY	RES	52	42	42	47	47	54.7	54.6	54	
59098	Wattle Grove	9 MORTON COURT WATTLE GROVE	RES	52	42	42	47	47	57.3	58.8	59.5	
86553	Wattle Grove	9 MUBO CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55	55.4	50.3	
20484	Wattle Grove	9 OATLANDS COURT WATTLE GROVE	RES	52	42	42	47	47	59.6	60.8	59	
22453	Wattle Grove	9 OLDBURY COURT WATTLE GROVE	RES	52	42	42	47	47	60	60.8	60.1	
70053	Wattle Grove	9 PEDDER COURT WATTLE GROVE	RES	52	42	42	47	47	60.5	57.8	54.9	
8372	Wattle Grove	9 PERI COURT WATTLE GROVE	RES	52	42	42	47	47	63.2	50	46.8	
26228	Wattle Grove	9 QUAMBY COURT WATTLE GROVE	RES	52	42	42	47	47	57.5	60.8	64.3	
9991	Wattle Grove	9 SALAMAUA CRESCENT HOLSWORTHY	RES	52	42	42	47	47	55.6	56.2	56	
103017	Wattle Grove	9 SANANANDA ROAD HOLSWORTHY	RES	52	42	42	47	47	56	55.9	55.3	
27054	Wattle Grove	9 SOMERCOTES COURT WATTLE GROVE	RES	52	42	42	47	47	53.5	60.1	67.5	
60134	Wattle Grove	9 SOMERSET COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	61.1	56.6	
65047	Wattle Grove	9 SPRINGFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	60.3	65.1	67.7	
26914	Wattle Grove	9 STOWE COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	59.8	59	
43922	Wattle Grove	9 TIVOLI COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	56.5	58.3	
57629	Wattle Grove	9 TOCAL COURT WATTLE GROVE	RES	52	42	42	47	47	64.4	65	62.3	
61142	Wattle Grove	9 TOMAGO COURT WATTLE GROVE	RES	52	42	42	47	47	63.4	63.5	54	
8589	Wattle Grove	9 TORRENS COURT WATTLE GROVE	RES	52	42	42	47	47	63.1	59.9	57.8	
44766	Wattle Grove	9 TRENTHAM PARK COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	61.6	62.3	
64552	Wattle Grove	9 TRINEURA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	57.1	47.3	
52788	Wattle Grove	9 TUSCULUM COURT WATTLE GROVE	RES	52	42	42	47	47	58.2	62.6	64.4	
9911	Wattle Grove	9 VALLEYFIELD COURT WATTLE GROVE	RES	52	42	42	47	47	65.5	65	58.6	
66610	Wattle Grove	9 WALLCLIFFE COURT WATTLE GROVE	RES	52	42	42	47	47	56.5	62.1	67	
30544	Wattle Grove	9 WEWAK ROAD HOLSWORTHY	RES	52	42	42	47	47	57.9	57.4	54.1	
18820	Wattle Grove	9 WIMBLEDON COURT WATTLE GROVE	RES	52	42	42	47	47	55.6	57.5	57.8	
19409	Wattle Grove	9 WOBURN ABBEY COURT WATTLE GROVE	RES	52	42	42	47	47	55.8	56.4	56.7	
85946	Wattle Grove											

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
62810	Wattle Grove	9 WOOLMERS COURT WATTLE GROVE	RES	52	42	42	47	47	60	62.7	70.6	
38202	Wattle Grove	9 YALLUM COURT WATTLE GROVE	RES	52	42	42	47	47	57.6	63.6	70.9	
19166	Wattle Grove	9 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	59.3	59.3	59	
64953	Wattle Grove	90 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	53.4	53.9	53.8	
27404	Wattle Grove	90 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	53.8	56.3	57.5	
81771	Wattle Grove	90 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.5	56.5	55.8	
75128	Wattle Grove	91 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.6	56	54.6	
74464	Wattle Grove	91 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	58.1	59.1	57.9	
47746	Wattle Grove	92 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	53.2	53.7	54.4	
50061	Wattle Grove	92 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	56.3	58.4	59.1	
37490	Wattle Grove	92 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.8	56.2	55.9	
15859	Wattle Grove	93 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	55.9	55.7	54.9	
18626	Wattle Grove	93 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.4	57.4	47.6	
33898	Wattle Grove	94 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	53.2	53.4	53.6	
55857	Wattle Grove	94 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	55.8	55.9	53.7	
75526	Wattle Grove	95 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.4	53.9	44.7	
95931	Wattle Grove	95 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	55.4	55.6	55.3	
91903	Wattle Grove	96 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	53.5	45.9	45	
21796	Wattle Grove	96 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.2	56.2	57.4	
72645	Wattle Grove	97 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	54.1	54.6	54.3	
30369	Wattle Grove	97 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	56.1	56.1	54.6	
94701	Wattle Grove	98 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	51	49.6	53.5	
78765	Wattle Grove	98 DAINTREE DRIVE WATTLE GROVE	RES	52	42	42	47	47	54.4	56.6	57.6	
26175	Wattle Grove	99 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	52.8	53	53.1	
102076	Wattle Grove	99 DERNA ROAD HOLSWORTHY	RES	52	42	42	47	47	57.5	55.4	46.8	
665	Wattle Grove	SKS 2/ 12-20 VILLAGE WAY WATTLE GROVE	RES	52	42	42	47	47	60.4	60.4	57.8	
62242	Wattle Grove	UNIT 1/ 11 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	59.8	59.7	58.9	
87340	Wattle Grove	UNIT 1/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	56.6	56.8	
6684	Wattle Grove	UNIT 1/ 12 KINROSS COURT WATTLE GROVE	RES	52	42	42	47	47	56.7	59.3	61.4	
4134	Wattle Grove	UNIT 1/ 20 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	58.6	57.4	53.6	
61438	Wattle Grove	UNIT 1/ 2A LABUAN ROAD WATTLE GROVE	RES	52	42	42	47	47	60.2	59.2	57.7	
67586	Wattle Grove	UNIT 1/ 32 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58	58.4	56.9	
98906	Wattle Grove	UNIT 1/ 66-68 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	52.1	52.9	52.5	
25607	Wattle Grove	UNIT 10/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.3	56	55.3	
6930	Wattle Grove	UNIT 10/ 32 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	59.7	61.5	64.3	
88127	Wattle Grove	UNIT 11/ 32 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	64	63.5	
82841	Wattle Grove	UNIT 12/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	58.3	57.4	
67863	Wattle Grove	UNIT 14/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	55.7	54.8	52.7	
107329	Wattle Grove	UNIT 14/ 20 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	57.4	52.6	48.8	
89152	Wattle Grove	UNIT 16/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.3	55.7	55.3	
3386	Wattle Grove	UNIT 16/ 32 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	58.4	61.5	62.2	
106050	Wattle Grove	UNIT 17/ 20 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	57.9	54.3	52	
4720	Wattle Grove	UNIT 18/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	50.8	44.6	
16950	Wattle Grove	UNIT 19/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	58.5	58.4	56	
96675	Wattle Grove	UNIT 2/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.4	56.7	56.5	
49373	Wattle Grove	UNIT 2/ 2A LABUAN ROAD WATTLE GROVE	RES	52	42	42	47	47	59.1	58.9	56.3	
96566	Wattle Grove	UNIT 2/ 32 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	59.1	61.3	63.7	
75684	Wattle Grove	UNIT 20/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	56.2	56	
97992	Wattle Grove	UNIT 21/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57.7	50.7	50.1	
102958	Wattle Grove	UNIT 22/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	53.8	45.5	
48282	Wattle Grove	UNIT 3/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.9	56.5	57	
27676	Wattle Grove	UNIT 3/ 32 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	60.7	61.6	63	
61330	Wattle Grove	UNIT 4/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	59.5	56.6	
6839	Wattle Grove	UNIT 4/ 20 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	57.2	56.3	55.5	
79502	Wattle Grove	UNIT 4/ 32 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	62.4	64.8	
59370	Wattle Grove	UNIT 4/ 66-68 BARDIA PARADE HOLSWORTHY	RES	52	42	42	47	47	56	57.2	56.7	
56354	Wattle Grove	UNIT 5/ 11 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	61.6	59.3	56.2	
24635	Wattle Grove	UNIT 5/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	57	57.7	56.3	
98871	Wattle Grove	UNIT 5/ 32 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	60.2	63.2	62.9	
71155	Wattle Grove	UNIT 5/ 5 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	59.4	61.5	58.9	
52044	Wattle Grove	UNIT 6/ 11 YARRAN COURT WATTLE GROVE	RES	52	42	42	47	47	59	59.7	59.6	
20446	Wattle Grove	UNIT 6/ 5 CASSINIA COURT WATTLE GROVE	RES	52	42	42	47	47	59.9	62.1	60	
54674	Wattle Grove	UNIT 7/ 32 CLAREMONT COURT WATTLE GROVE	RES	52	42	42	47	47	61	64.7	60.3	
76434	Wattle Grove	UNIT 8/ 11-13 ARMATA COURT WATTLE GROVE	RES	52	42	42	47	47	56.6	56.8	54.2	
58999	Wattle Grove	UNIT 9/ 20 CONTINUA COURT WATTLE GROVE	RES	52	42	42	47	47	57.1	47.1	43.1	
105255	Wattle Grove North	1 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.2	53.1	43.1	
83602	Wattle Grove North	1 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	56.9	49.3	45	
83138	Wattle Grove North	1 BUNGNONIA COURT WATTLE GROVE	RES	46	41	41	41	41	66.9	61.7	57	
22674	Wattle Grove North	1 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	64.5	61.5	56	
24811	Wattle Grove North	1 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.7	57.3	54.6	
15320	Wattle Grove North	1 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	67.8	63	57.7	
32733	Wattle Grove North	1 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	61.9	50.7	48.7	
94915	Wattle Grove North	1 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	65.3	60.2	55.7	
45998	Wattle Grove North	1 FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	58.6	57.3	53.7	
32065	Wattle Grove North	1 GLASGOW STREET WATTLE GROVE	RES	46	41	41	41	41	58.8	57.4	54.5	
10678	Wattle Grove North	1 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	67.7	64.2	59.4	
104181	Wattle Grove North	1 HAMILTON AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.4	55.9	53.5	
53671	Wattle Grove North	1 MONASH AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.7	58.7	54	
15010	Wattle Grove North	1 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	66.2	59.7	55.6	
15408	Wattle Grove North	1 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	70.2	63.3	58.6	
29910	Wattle Grove North	1 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	65.3	58.1	48.2	
22066	Wattle Grove North	1 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	64.6	60.4	55.9	
44185	Wattle Grove North	1 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	64.9	60	54.7	
48772	Wattle Grove North	1 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	62.9	59.1	55.2	
47501	Wattle Grove North	1 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	69	61.9	56.8	
93600	Wattle Grove North	10 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	53.3	54.7	54	
57957	Wattle Grove North	10 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	63.7	60	56.9	
104167	Wattle Grove North	10 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.8	57.9	54.9	
21192	Wattle Grove North	10 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	62.1	60.3	56.3	
101417	Wattle Grove North	10 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	59	57.7	55.4	
9386	Wattle Grove North	10 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	64.9	59.3	55	
34593	Wattle Grove North	10 BUNGNONIA COURT WATTLE GROVE	RES	46	41	41	41	41	66.7	61.4	55.8	
22807	Wattle Grove North	10 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.8	56.6	54.1	
14145	Wattle Grove North	10 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	71.3	63	57.7	
46431	Wattle Grove North	10 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	65.4	62.9	58.7	
76390	Wattle Grove North	10 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	68.6	64.2	58.7	
30884	Wattle Grove North	10 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	63.1	59.4	55.3	
9154	Wattle Grove North	10 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	65.4	61.5	56.8	
82963	Wattle Grove North	10 FRED										

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
60741	Wattle Grove North	10 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	70.2	64.9	59.1	
22427	Wattle Grove North	10 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	67.8	62.5	57.6	
94766	Wattle Grove North	10 MONASH AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.4	57.1	54	
48611	Wattle Grove North	10 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	64.1	60.2	56.1	
61043	Wattle Grove North	10 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	69.9	65.2	58.4	
70415	Wattle Grove North	10 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	63.4	61.4	56.5	
44346	Wattle Grove North	10 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	63.2	61.3	56.7	
43916	Wattle Grove North	10 ROBERTSON CLOSE WATTLE GROVE	RES	46	41	41	41	41	60.2	58.6	53.7	
10552	Wattle Grove North	10 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	66	61.1	57	
27884	Wattle Grove North	10 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	60.8	57.8	54.1	
46088	Wattle Grove North	10 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	67.8	61.4	56.9	
57691	Wattle Grove North	10 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	63.1	62.2	57.3	
15219	Wattle Grove North	10 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	64.2	59.3	55.2	
54641	Wattle Grove North	10 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	64.6	59.9	55.4	
71692	Wattle Grove North	11 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	62.7	58.7	54.8	
90861	Wattle Grove North	11 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59	56.2	54.8	
64586	Wattle Grove North	11 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.9	57.2	54.4	
45113	Wattle Grove North	11 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	56.9	55.9	53.4	
72634	Wattle Grove North	11 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	62	59	54.9	
38110	Wattle Grove North	11 BUNGGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	65	60.7	56.2	
23958	Wattle Grove North	11 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	62.1	60.3	57.3	
38712	Wattle Grove North	11 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.5	58.8	56.1	
43528	Wattle Grove North	11 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.7	62.9	57.9	
91407	Wattle Grove North	11 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	66.5	62	56.6	
30435	Wattle Grove North	11 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	64.8	61	56.2	
58946	Wattle Grove North	11 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	68.4	63	58.4	
44192	Wattle Grove North	11 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	68.9	61.8	57.4	
63320	Wattle Grove North	11 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	67.5	62.2	58.1	
19289	Wattle Grove North	11 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	62.9	59.3	54.5	
41571	Wattle Grove North	11 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	70	60.4	54	
17226	Wattle Grove North	11 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	66.1	60.7	57.6	
97019	Wattle Grove North	11 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	64.9	61.1	56.6	
64451	Wattle Grove North	11 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	60.8	57.8	54.3	
6319	Wattle Grove North	11 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66.3	61.2	56.1	
43736	Wattle Grove North	11 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	63.9	60.5	56.7	
71313	Wattle Grove North	11 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	62.9	59.5	53.4	
17128	Wattle Grove North	11 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.4	62.3	57	
44603	Wattle Grove North	115 HEATHCOTE ROAD WATTLE GROVE	RES	46	41	41	41	41	57.5	55	53.6	
11109	Wattle Grove North	12 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	61.3	58.3	55.1	
45172	Wattle Grove North	12 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	65.8	60.6	55	
14384	Wattle Grove North	12 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.8	58.5	54.3	
35574	Wattle Grove North	12 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	61.4	58.4	54.4	
107294	Wattle Grove North	12 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.2	57.8	54.7	
63336	Wattle Grove North	12 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	63	57.5	50.2	
46483	Wattle Grove North	12 BUNGGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	65	61.6	56.8	
13755	Wattle Grove North	12 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.9	60.4	55.7	
98497	Wattle Grove North	12 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.9	56.8	54.1	
26258	Wattle Grove North	12 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.6	62.9	57.6	
33005	Wattle Grove North	12 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	65.4	62.1	55.4	
69378	Wattle Grove North	12 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	68.8	64.3	59.3	
20006	Wattle Grove North	12 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	62.3	58.5	50.5	
16282	Wattle Grove North	12 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	68.9	62.8	57.2	
54431	Wattle Grove North	12 FRED A PLACE HAMMONDVILLE	RES	46	41	41	41	41	58.4	54.3	52.4	
63006	Wattle Grove North	12 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	71.9	65.1	59	
9091	Wattle Grove North	12 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.1	62.7	57.7	
66571	Wattle Grove North	12 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	63.1	58.7	54.8	
52298	Wattle Grove North	12 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	71.3	65.2	58.3	
27685	Wattle Grove North	12 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	65.2	59.8	54.3	
95745	Wattle Grove North	12 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	65.4	61.9	56.6	
64317	Wattle Grove North	12 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	68.5	61.3	57.6	
44773	Wattle Grove North	12 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	63.2	57.4	53.2	
23744	Wattle Grove North	12 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	69.6	64	59.3	
39119	Wattle Grove North	12 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	62.3	59.6	57.2	
19674	Wattle Grove North	12 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	63.6	58.7	55.1	
53950	Wattle Grove North	12 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	65.1	60.2	55.9	
69791	Wattle Grove North	13 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	63.2	58.8	54.8	
90249	Wattle Grove North	13 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.9	55.9	54.7	
35163	Wattle Grove North	13 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.3	57	52.9	
27856	Wattle Grove North	13 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.6	56	52.6	
9375	Wattle Grove North	13 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.8	59	54.8	
61762	Wattle Grove North	13 BUNGGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	65.9	60.4	55.9	
37730	Wattle Grove North	13 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	63.5	60.3	54.7	
64838	Wattle Grove North	13 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.3	56.5	55.6	
62953	Wattle Grove North	13 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.1	62.2	57.1	
25564	Wattle Grove North	13 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	66.6	62.3	56.7	
13776	Wattle Grove North	13 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	66.6	60.6	56.7	
39656	Wattle Grove North	13 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	70.2	62.6	58.1	
27173	Wattle Grove North	13 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.5	64	58.6	
56487	Wattle Grove North	13 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	62.9	59.6	56.2	
58353	Wattle Grove North	13 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	70.8	65.5	58.4	
88027	Wattle Grove North	13 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	66.6	60.7	56	
35283	Wattle Grove North	13 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	65.2	61.6	56.5	
4900	Wattle Grove North	13 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	62.5	58.5	53.8	
23834	Wattle Grove North	13 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66	60.6	56.1	
38552	Wattle Grove North	13 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	66.1	62.7	58.4	
54162	Wattle Grove North	13 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	62.3	59.4	55.9	
37818	Wattle Grove North	13 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.2	62.2	57	
34911	Wattle Grove North	14 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	64.1	59.5	55.2	
93198	Wattle Grove North	14 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.4	59.3	54.3	
87970	Wattle Grove North	14 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	60.5	60.3	57.3	
60665	Wattle Grove North	14 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	56.8	55.3	53	
58182	Wattle Grove North	14 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	62.4	58.6	54.4	
14158	Wattle Grove North	14 BUNGGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	64.7	61.7	57.6	
51187	Wattle Grove North	14 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	62.9	57.5	54.6	
22214	Wattle Grove North	14 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	56.6	55.9	54.2	
30841	Wattle Grove North	14 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.7	61.6	56.7	
51928	Wattle Grove North	14 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	62.9	59.9	55	
72473	Wattle Grove North	14 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	69	64.4	59.4	
54206	Wattle Grove North	14 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	62	53.9	49.7	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
30153	Wattle Grove North	14 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	70.9	64.7	59.5	
80438	Wattle Grove North	14 FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	55.9	52.6	37.8	
3629	Wattle Grove North	14 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	72.1	65.2	58.9	
62608	Wattle Grove North	14 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.6	63.3	58.4	
83062	Wattle Grove North	14 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	65.2	61.2	57.3	
33977	Wattle Grove North	14 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	72.1	65.4	58.3	
61656	Wattle Grove North	14 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	65.9	61	56.9	
13847	Wattle Grove North	14 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	64.4	58.5	54.7	
15761	Wattle Grove North	14 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	66.2	63	57.1	
12911	Wattle Grove North	14 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	62.1	58.1	54.5	
30136	Wattle Grove North	14 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	69.9	63.7	58.5	
15741	Wattle Grove North	14 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	62.7	60	56.2	
89643	Wattle Grove North	14 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	62.2	58.4	54.6	
46914	Wattle Grove North	14 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	65.3	60.5	56.4	
107291	Wattle Grove North	140 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	57	56.9	54	
58529	Wattle Grove North	148 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	57	54.3	52.3	
81396	Wattle Grove North	14A ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	59.2	56.6	54.2	
17240	Wattle Grove North	15 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	63	58.9	54.9	
96328	Wattle Grove North	15 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59	58.6	56.4	
37911	Wattle Grove North	15 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.6	57.9	56.6	
21860	Wattle Grove North	15 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.3	57.7	53.5	
88082	Wattle Grove North	15 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	62.3	58.4	54.4	
64731	Wattle Grove North	15 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	64.7	60.2	56.5	
18975	Wattle Grove North	15 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.5	56.9	52.5	
33503	Wattle Grove North	15 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.2	63.2	58	
57879	Wattle Grove North	15 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	65.2	59.9	55.5	
62053	Wattle Grove North	15 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	68.2	62.5	59.3	
68650	Wattle Grove North	15 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.6	62.3	55.4	
86622	Wattle Grove North	15 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	62.6	58.5	54.6	
6715	Wattle Grove North	15 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	73.3	66.5	59.2	
42520	Wattle Grove North	15 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	64.4	60.3	56	
44225	Wattle Grove North	15 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	67.1	62.1	56.7	
56014	Wattle Grove North	15 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	61.3	53.1	47.5	
12362	Wattle Grove North	15 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	65.9	61	56.2	
74434	Wattle Grove North	15 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	60.4	60.2	56.7	
21660	Wattle Grove North	15 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	61.8	58.2	54.5	
80578	Wattle Grove North	15 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	67.8	62	56.9	
102919	Wattle Grove North	150 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	56.7	55.1	53.1	
83485	Wattle Grove North	152 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	58.1	55.4	52.3	
63944	Wattle Grove North	154 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	58.2	58	54.3	
8616	Wattle Grove North	156 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	57.7	54.2	53.2	
99199	Wattle Grove North	16 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	59.9	57.9	54.1	
59310	Wattle Grove North	16 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	63.3	59.5	55.9	
47674	Wattle Grove North	16 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.9	57.7	54.8	
3928	Wattle Grove North	16 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.1	57.8	55.9	
16956	Wattle Grove North	16 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	56.8	55.4	53	
58957	Wattle Grove North	16 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	62.6	59.2	54.9	
42080	Wattle Grove North	16 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	65.8	60.4	55.5	
40055	Wattle Grove North	16 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	62.2	60.8	57.5	
49535	Wattle Grove North	16 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.9	55.7	51.9	
37896	Wattle Grove North	16 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.9	65	59.7	
54650	Wattle Grove North	16 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	65	59.6	55.8	
70758	Wattle Grove North	16 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	69.3	64.5	59.4	
97286	Wattle Grove North	16 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	63.2	58.8	55.1	
23921	Wattle Grove North	16 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	68.4	62.6	57.6	
47554	Wattle Grove North	16 FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	56.9	55.1	52.6	
24281	Wattle Grove North	16 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	72.4	65.3	58.7	
29608	Wattle Grove North	16 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	69	62.3	58	
12412	Wattle Grove North	16 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	62.6	58.6	54.7	
22921	Wattle Grove North	16 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	72.4	65.6	60.7	
16875	Wattle Grove North	16 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	66	61.1	56.7	
87780	Wattle Grove North	16 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.7	58.7	52.9	
70311	Wattle Grove North	16 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	66.4	63.3	57.7	
81923	Wattle Grove North	16 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	63.4	58.8	52	
22074	Wattle Grove North	16 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	68.2	62	56.8	
49538	Wattle Grove North	16 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	61.8	59.5	56.4	
92330	Wattle Grove North	16 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	62.1	58.4	54.6	
95272	Wattle Grove North	16 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	64.1	57.3	51.3	
107310	Wattle Grove North	160 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	58.1	55.5	52.3	
21606	Wattle Grove North	162 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	58.9	57.9	52.3	
29018	Wattle Grove North	164A HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	56.3	54.2	52.4	
104162	Wattle Grove North	166 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	56.2	53.9	52.5	
91600	Wattle Grove North	168 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	55.3	53.7	52.4	
51356	Wattle Grove North	168 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.8	57.6	54.4	
54839	Wattle Grove North	17 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.9	58	55.8	
95652	Wattle Grove North	17 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.7	56.9	54	
79852	Wattle Grove North	17 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.1	54.2	48.6	
39735	Wattle Grove North	17 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	63.3	58.9	51.8	
18227	Wattle Grove North	17 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	64.5	60.1	56.4	
12762	Wattle Grove North	17 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	60.5	59	55.3	
30143	Wattle Grove North	17 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	71.7	65.6	60.1	
61592	Wattle Grove North	17 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	59.2	55.4	46.6	
90804	Wattle Grove North	17 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	71.4	64	58.3	
56275	Wattle Grove North	17 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	74.1	68.1	60.7	
8948	Wattle Grove North	17 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	62.4	58.6	54.7	
86636	Wattle Grove North	17 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	65.6	60.5	56	
92287	Wattle Grove North	17 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	67.1	61.1	56.6	
61565	Wattle Grove North	17 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	62	57.7	54.2	
9132	Wattle Grove North	17 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	65.8	61.3	56.3	
34256	Wattle Grove North	17 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	63.6	60.2	56.5	
44242	Wattle Grove North	17 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	63.2	58.4	54.6	
44128	Wattle Grove North	17 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	67.1	61.9	56.3	
55524	Wattle Grove North	18 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	59.7	57	56.3	
54503	Wattle Grove North	18 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	63.8	59	55	
97129	Wattle Grove North	18 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.5	58.9	56.7	
17874	Wattle Grove North	18 BLAMEY ROAD WATTLE GROVE	RES	46								

ID	NCA	Address	Land use	Laeq, 15 minute noise level							
				Noise management level			Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3	
					1	2	3				
			Key	Exceeds Standard NML			exceeds OOHW 3 NML				
22013	Wattle Grove North	18 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.9	58.1	54.6
12948	Wattle Grove North	18 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.4	65	60
93045	Wattle Grove North	18 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	64.7	61.6	57
69082	Wattle Grove North	18 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	71	64.6	59.5
86436	Wattle Grove North	18 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	64.7	62.1	57.5
37516	Wattle Grove North	18 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	68.2	62.5	57.5
15930	Wattle Grove North	18 FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	59.4	57.7	52.6
16206	Wattle Grove North	18 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	72.6	65.5	58.6
78275	Wattle Grove North	18 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	70.1	63.1	57.4
44680	Wattle Grove North	18 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	72.8	65.7	58.3
28388	Wattle Grove North	18 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	65.2	60.7	55.1
46447	Wattle Grove North	18 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.5	62.1	57.3
67865	Wattle Grove North	18 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	66	63.2	58.8
55696	Wattle Grove North	18 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66.2	61.8	56.9
82784	Wattle Grove North	18 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	62	59.6	57
52880	Wattle Grove North	18 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	61.9	58.3	54.6
82316	Wattle Grove North	18 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	66.3	60.8	56.3
41080	Wattle Grove North	18A BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	64.4	60.9	56.3
67852	Wattle Grove North	19 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.8	56.8	53.6
27744	Wattle Grove North	19 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	60.9	58	53.9
104191	Wattle Grove North	19 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.6	58	53.6
2794	Wattle Grove North	19 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.7	58.3	54.6
85216	Wattle Grove North	19 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	64.5	60.7	56.1
18603	Wattle Grove North	19 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	62.2	59.3	54.9
46719	Wattle Grove North	19 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	68.3	60.8	56.1
96099	Wattle Grove North	19 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	65.8	61.2	57.2
50417	Wattle Grove North	19 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	65.8	61	56.6
74664	Wattle Grove North	19 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	72	65.9	61
36515	Wattle Grove North	19 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	71.3	66	58.6
39576	Wattle Grove North	19 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	62.8	58.8	55.2
85350	Wattle Grove North	19 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	65.5	61.2	57.9
30797	Wattle Grove North	19 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	60.7	57.9	54.2
57858	Wattle Grove North	19 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	65.5	60.7	56.2
22475	Wattle Grove North	19 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	64.8	60	56.4
54289	Wattle Grove North	19 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	67.5	61.9	56.3
28050	Wattle Grove North	1A BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.1	57.4	53.6
76828	Wattle Grove North	2 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	58.4	56.1	53.7
44166	Wattle Grove North	2 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	66	61.2	54.8
76687	Wattle Grove North	2 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.6	56.2	53.9
47627	Wattle Grove North	2 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	61.2	57.5	55.3
89373	Wattle Grove North	2 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	70.4	63.2	57.8
12772	Wattle Grove North	2 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	65	63.3	59.5
101442	Wattle Grove North	2 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	67.7	63.6	58
12475	Wattle Grove North	2 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	64.9	60	55.7
66302	Wattle Grove North	2 FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	56.4	55	52.5
70727	Wattle Grove North	2 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	67.7	62.5	56.9
25639	Wattle Grove North	2 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	68.8	64.3	59.2
47394	Wattle Grove North	2 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	63.7	55.7	46.6
38937	Wattle Grove North	2 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	62.3	59.5	54.5
75617	Wattle Grove North	2 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	65	60.7	56.9
15520	Wattle Grove North	2 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	68	61.3	57.3
64418	Wattle Grove North	2 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	64.9	60.9	57.5
38532	Wattle Grove North	2 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	65	59.7	56.2
25914	Wattle Grove North	20 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	61.6	57	54.5
77407	Wattle Grove North	20 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	63.3	58.9	54.9
33160	Wattle Grove North	20 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.1	59.2	55.2
72163	Wattle Grove North	20 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.2	55.6	53.2
47526	Wattle Grove North	20 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	63.4	60.8	57.2
12336	Wattle Grove North	20 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	65	58.9	51.1
43386	Wattle Grove North	20 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.1	58.9	56.1
63247	Wattle Grove North	20 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.9	58.4	53.7
17260	Wattle Grove North	20 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	70.5	62.9	57.6
57868	Wattle Grove North	20 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	62.3	59.4	55.6
61513	Wattle Grove North	20 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	66.6	60.4	56.6
42626	Wattle Grove North	20 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	72.9	65.7	58.4
39279	Wattle Grove North	20 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	69.3	65.2	57.7
13430	Wattle Grove North	20 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	64	59.9	54
57434	Wattle Grove North	20 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.3	62.2	58.6
56974	Wattle Grove North	20 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	68.6	63.3	59
20073	Wattle Grove North	20 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66	61.9	56.9
35742	Wattle Grove North	20 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	62.2	61.6	58.3
37193	Wattle Grove North	20 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	66.5	61.8	57.6
81440	Wattle Grove North	20A FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	59.9	55.2	52.7
87537	Wattle Grove North	20B FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	57.2	56.2	53.7
29362	Wattle Grove North	21 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	61.7	59.3	56.2
42007	Wattle Grove North	21 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.6	56.6	54
36065	Wattle Grove North	21 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.4	56.4	52.4
66729	Wattle Grove North	21 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	63.1	60.5	57.1
56548	Wattle Grove North	21 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	64.6	60.3	56.1
62625	Wattle Grove North	21 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	60.3	58.7	54.8
17803	Wattle Grove North	21 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	70	63.7	58.3
59300	Wattle Grove North	21 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	67.8	61.6	57.1
10584	Wattle Grove North	21 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	67.5	60	56.4
80365	Wattle Grove North	21 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	68.9	63.4	58.8
21035	Wattle Grove North	21 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	71	65.3	58.1
84663	Wattle Grove North	21 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.1	62.2	56.7
42406	Wattle Grove North	21 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	60.8	57.6	54.1
76985	Wattle Grove North	21 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	63.6	59.1	55
89140	Wattle Grove North	21 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	65.5	60	56.5
65628	Wattle Grove North	21 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	60.7	54.8	51.6
69207	Wattle Grove North	22 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	59.8	57.2	54.6
61418	Wattle Grove North	22 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	64.4	59.3	54.9
37210	Wattle Grove North	22 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.6	59	53
53522	Wattle Grove North	22 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	60.3	56.9	54.1
92662	Wattle Grove North	22 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.2	55.6	53.2
32814	Wattle Grove North	22 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.5	58.3	54.7
35923	Wattle Grove North	22 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	65.7	60	55.4
42830	Wattle Grove North	22 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.9	58.5	55.1
62356	Wattle Grove North	22 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.8	56.5	53.6

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
45605	Wattle Grove North	22 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	71.8	64.5	59.4	
12864	Wattle Grove North	22 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	61.6	52.3	47	
31545	Wattle Grove North	22 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	74.9	68.2	60.6	
28913	Wattle Grove North	22 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	69	64.4	59.9	
85445	Wattle Grove North	22 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	64.7	59.3	55.1	
56050	Wattle Grove North	22 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	65.4	60.8	56.2	
9000	Wattle Grove North	22 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	63.5	56.6	50.6	
43747	Wattle Grove North	22 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	61.7	59.3	57.8	
13079	Wattle Grove North	22 WOMBAYAN COURT WATTLE GROVE	RES	46	41	41	41	41	64.4	59.9	55.5	
77168	Wattle Grove North	22A FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	57	55.1	50.8	
62453	Wattle Grove North	22B FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	57.2	55.3	52.7	
30716	Wattle Grove North	23 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.5	57.1	54.9	
60657	Wattle Grove North	23 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	58.6	56.7	54.3	
43136	Wattle Grove North	23 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	59	56.8	54.2	
10755	Wattle Grove North	23 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	62.1	56.3	52	
52431	Wattle Grove North	23 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	64.9	60.4	56.2	
44920	Wattle Grove North	23 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	60.2	57.9	54.8	
54710	Wattle Grove North	23 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	72.6	66.2	60.8	
91156	Wattle Grove North	23 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	65.6	62.7	57.4	
31092	Wattle Grove North	23 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	66.6	59.8	56.5	
72267	Wattle Grove North	23 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	71.4	63.1	58.9	
48109	Wattle Grove North	23 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	72.7	65.1	59.5	
87242	Wattle Grove North	23 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.5	62.4	56.7	
53981	Wattle Grove North	23 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	60.9	57.5	55.3	
71043	Wattle Grove North	23 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	64.9	60.3	55.5	
22365	Wattle Grove North	23 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	62.8	59.9	56.4	
25736	Wattle Grove North	23 WOMBAYAN COURT WATTLE GROVE	RES	46	41	41	41	41	66.4	62.1	56.7	
10171	Wattle Grove North	24 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	59.8	57.2	54.7	
9866	Wattle Grove North	24 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.2	57.8	54.8	
17195	Wattle Grove North	24 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.4	56.2	55	
34196	Wattle Grove North	24 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	59	57.8	55.4	
61407	Wattle Grove North	24 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.7	58.1	54.5	
47906	Wattle Grove North	24 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	65.6	60.7	56.4	
37962	Wattle Grove North	24 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.5	58.7	56.3	
66712	Wattle Grove North	24 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	54.3	55.1	53.5	
15048	Wattle Grove North	24 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	71.9	63.6	58.6	
77097	Wattle Grove North	24 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	62	56.6	47.5	
50052	Wattle Grove North	24 FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	59.7	57.8	55	
46116	Wattle Grove North	24 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	73.6	66.1	58.4	
75266	Wattle Grove North	24 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.4	64.4	60.5	
87455	Wattle Grove North	24 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	64.8	60.7	56.4	
41275	Wattle Grove North	24 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.2	60.5	47.3	
15797	Wattle Grove North	24 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66.1	61.9	57.4	
38267	Wattle Grove North	24 WOMBAYAN COURT WATTLE GROVE	RES	46	41	41	41	41	69.7	63.8	58.6	
80233	Wattle Grove North	240 NUWARRA ROAD HAMMONDVILLE	RES	46	41	41	41	41	56.8	55.4	52.6	
68908	Wattle Grove North	242 NUWARRA ROAD HAMMONDVILLE	RES	46	41	41	41	41	58.2	56.2	54.6	
26196	Wattle Grove North	244A NUWARRA ROAD HAMMONDVILLE	RES	46	41	41	41	41	57	55.7	51.9	
84295	Wattle Grove North	244B NUWARRA ROAD HAMMONDVILLE	RES	46	41	41	41	41	57.1	55.5	52	
30625	Wattle Grove North	246A NUWARRA ROAD HAMMONDVILLE	RES	46	41	41	41	41	57.7	54.2	52.1	
29130	Wattle Grove North	246B NUWARRA ROAD HAMMONDVILLE	RES	46	41	41	41	41	54.5	53.3	51.7	
8870	Wattle Grove North	248 NUWARRA ROAD HAMMONDVILLE	RES	46	41	41	41	41	57.9	56.5	53.9	
29927	Wattle Grove North	25 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	58.7	54.2	51.3	
16110	Wattle Grove North	25 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.5	57.6	54.5	
38890	Wattle Grove North	25 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	65.1	60.6	56.5	
52834	Wattle Grove North	25 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	60.6	57.8	54.7	
71179	Wattle Grove North	25 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	71.4	65.2	59.9	
42977	Wattle Grove North	25 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	66.4	61.6	58.5	
83500	Wattle Grove North	25 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	68.3	62.5	58.2	
22196	Wattle Grove North	25 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	71.5	64.7	59.2	
92298	Wattle Grove North	25 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	73	67.6	62.2	
81503	Wattle Grove North	25 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	65.8	61.4	56.7	
18584	Wattle Grove North	25 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	63.7	59.4	55.1	
63863	Wattle Grove North	25 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	63.6	59.7	56.4	
49678	Wattle Grove North	25 WOMBAYAN COURT WATTLE GROVE	RES	46	41	41	41	41	66	62.3	57.5	
9772	Wattle Grove North	250 NUWARRA ROAD HAMMONDVILLE	RES	46	41	41	41	41	58.5	56.9	53.8	
60798	Wattle Grove North	26 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	60.6	57.6	54.9	
48206	Wattle Grove North	26 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	61	58.8	54.9	
57466	Wattle Grove North	26 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	60.4	57.7	54.3	
23101	Wattle Grove North	26 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.3	55.7	53.2	
62744	Wattle Grove North	26 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.5	58.1	54.4	
52517	Wattle Grove North	26 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	57.7	56.8	54.7	
61221	Wattle Grove North	26 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	60.2	55.7	53.5	
13768	Wattle Grove North	26 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	66	60.7	55.9	
67044	Wattle Grove North	26 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	69.3	64.6	59.7	
64700	Wattle Grove North	26 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	67.9	62.9	58.8	
64015	Wattle Grove North	27 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.4	57.3	53.8	
91723	Wattle Grove North	27 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.1	57.8	54.2	
77135	Wattle Grove North	27 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	63.2	59	54.9	
18675	Wattle Grove North	27 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	60	57.7	54.6	
43803	Wattle Grove North	27 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	71	64.3	58.7	
20871	Wattle Grove North	27 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	66.3	61.8	57.3	
4509	Wattle Grove North	27 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	67.4	60.8	56.3	
42048	Wattle Grove North	27 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	71.8	64.9	59.2	
2772	Wattle Grove North	27 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	70.2	65	59.7	
90340	Wattle Grove North	27 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.4	61.3	56.8	
52931	Wattle Grove North	27 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	63.5	59.1	55	
49662	Wattle Grove North	27 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	61.5	59.5	56.2	
52616	Wattle Grove North	27 WOMBAYAN COURT WATTLE GROVE	RES	46	41	41	41	41	62.7	56.9	52.9	
60985	Wattle Grove North	28 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	61.2	57.8	55.1	
16071	Wattle Grove North	28 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	60.6	57.9	54.3	
107279	Wattle Grove North	28 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.2	58	53.1	
68186	Wattle Grove North	28 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	59.3	57.7	54.3	
94367	Wattle Grove North	28 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	61.9	59.1	55.1	
28162	Wattle Grove North	28 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.9	59.3	51	
44036	Wattle Grove North	28 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66.6	61.2	56.5	
42496	Wattle Grove North	28A BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	58	55.8	53.3	
73944	Wattle Grove North	29 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	62.1	57.8	54.8	
22755	Wattle Grove North	29 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.1	57.8	54.3	
44313	Wattle Grove North	29 BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	64	59.4	55	

ID	NCA	Address	Land use	Laeq, 15 minute noise level										
				Noise management level						Predicted helicopter noise				
				Standard hours	OOHW Period			Area 5	Area 2	Area 3				
					1	2	3							
			Key		Exceeds Standard NML			exceeds OOHW 3 NML						
73070	Wattle Grove North	29 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	41	59.9	57.6	54.5		
41867	Wattle Grove North	29 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	41	71.2	64.4	58.8		
56542	Wattle Grove North	29 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	41	66.4	61.9	57.5		
12551	Wattle Grove North	29 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	41	72.2	66.1	61.5		
50371	Wattle Grove North	29 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	41	69.9	62.3	56.1		
44609	Wattle Grove North	29 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	41	66.4	61.4	57.2		
48388	Wattle Grove North	29 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	41	64.4	59.8	55.2		
57902	Wattle Grove North	29 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	41	61.5	59.5	56.1		
35645	Wattle Grove North	29 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	41	63.8	59.3	55.1		
82875	Wattle Grove North	3 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	41	64.7	60.1	55.6		
71607	Wattle Grove North	3 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	59.4	58.1	54.3		
63660	Wattle Grove North	3 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	55.8	53.6	52.4		
53865	Wattle Grove North	3 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	41	62.6	48.6	44.9		
64213	Wattle Grove North	3 BUNGNONIA COURT WATTLE GROVE	RES	46	41	41	41	41	41	66.1	61.4	58.9		
18191	Wattle Grove North	3 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	41	61.9	59.1	56.5		
108199	Wattle Grove North	3 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	61.1	59.4	55.3		
57906	Wattle Grove North	3 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	41	67	61.5	56.4		
33922	Wattle Grove North	3 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	41	63.4	59.6	49.2		
8983	Wattle Grove North	3 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	41	65	58	45.3		
77080	Wattle Grove North	3 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	41	65.4	60.2	55.7		
14662	Wattle Grove North	3 FRED A PLACE HAMMONDVILLE	RES	46	41	41	41	41	41	59	56.9	51.6		
91546	Wattle Grove North	3 GLASGOW STREET WATTLE GROVE	RES	46	41	41	41	41	41	62.4	59.3	54.8		
88512	Wattle Grove North	3 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	41	67.3	61.4	57		
94151	Wattle Grove North	3 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	41	67.9	63	58		
37167	Wattle Grove North	3 MONASH AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	58.9	56.2	50.8		
73375	Wattle Grove North	3 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	41	65.3	59.9	55.7		
52665	Wattle Grove North	3 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	41	68.2	60.8	48.3		
66204	Wattle Grove North	3 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	41	64.3	59.9	55.8		
47874	Wattle Grove North	3 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	41	64.4	60.7	56.4		
52076	Wattle Grove North	3 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	41	65.8	60.7	56.7		
22177	Wattle Grove North	3 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	41	62.9	57.2	53.8		
26353	Wattle Grove North	3 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	41	68.1	63.1	58.5		
39804	Wattle Grove North	3 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	41	63.3	59.9	55.4		
26218	Wattle Grove North	3 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	41	62.8	59	55.9		
23208	Wattle Grove North	3 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	41	68.7	62.7	56.7		
41110	Wattle Grove North	30 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	41	61.4	58.1	55.2		
15718	Wattle Grove North	30 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	61.7	58.8	55.2		
59254	Wattle Grove North	30 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	41	60.2	57.6	54.9		
37499	Wattle Grove North	30 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	57.6	55.9	53.2		
22637	Wattle Grove North	30 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	41	62.8	58.3	54.7		
94011	Wattle Grove North	30 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	41	61	58.9	56		
93825	Wattle Grove North	30 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	41	66.3	61.6	56.1		
51994	Wattle Grove North	30 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	41	65.4	60.8	56.1		
56087	Wattle Grove North	31 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	63	58.7	55.8		
74241	Wattle Grove North	31 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	41	61.8	57.9	54.4		
64395	Wattle Grove North	31 BUNGNONIA COURT WATTLE GROVE	RES	46	41	41	41	41	41	63.5	59.1	55		
65490	Wattle Grove North	31 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	41	59.9	57.5	54.4		
54807	Wattle Grove North	31 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	41	72.2	65.5	60		
57199	Wattle Grove North	31 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	41	60.7	57.9	55.8		
83334	Wattle Grove North	31 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	41	66.6	62.2	58.1		
55077	Wattle Grove North	31 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	41	72.5	65.3	58.8		
73743	Wattle Grove North	31 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	41	68.9	64.7	58.4		
9649	Wattle Grove North	31 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	41	66.2	61.5	56.8		
76834	Wattle Grove North	31 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	41	64.6	59.3	55.1		
89003	Wattle Grove North	32 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	41	61.6	58.2	55.3		
63569	Wattle Grove North	32 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	62.9	59.5	55.6		
41624	Wattle Grove North	32 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	41	60	58.7	54.1		
9306	Wattle Grove North	32 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	60.1	58.4	55.7		
27214	Wattle Grove North	32 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	41	61.9	56.1	44.9		
15050	Wattle Grove North	32 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	41	63	60.3	56.9		
62533	Wattle Grove North	32 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	41	65.9	60.5	55.7		
78510	Wattle Grove North	33 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	59.9	57.5	54.7		
24297	Wattle Grove North	33 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	41	61.4	57.9	54.3		
11916	Wattle Grove North	33 BUNGNONIA COURT WATTLE GROVE	RES	46	41	41	41	41	41	63.3	59	54.9		
61651	Wattle Grove North	33 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	41	59.8	57.4	54.4		
41859	Wattle Grove North	33 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	41	71.3	62.5	57.1		
31630	Wattle Grove North	33 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	41	60.5	58.6	53.9		
11943	Wattle Grove North	33 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	41	67.9	63	58		
52245	Wattle Grove North	33 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	41	72.8	65.3	58.2		
97542	Wattle Grove North	33 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	41	65.9	60.3	55.7		
55792	Wattle Grove North	34 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	41	61.7	60.8	57		
28003	Wattle Grove North	34 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	62.3	59.9	56.2		
52824	Wattle Grove North	34 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	41	59.3	56.9	54		
64523	Wattle Grove North	34 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	58	55.9	53.3		
50127	Wattle Grove North	34 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	41	60.8	57	53.4		
96232	Wattle Grove North	34 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	41	52.1	51.6	51.4		
15733	Wattle Grove North	34 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	41	65.6	61	57.3		
41209	Wattle Grove North	34 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	41	64.9	59.9	55.3		
59785	Wattle Grove North	35 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	61.8	60.2	57.1		
44739	Wattle Grove North	35 BUNGNONIA COURT WATTLE GROVE	RES	46	41	41	41	41	41	63.7	59.2	55		
78772	Wattle Grove North	35 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	41	60	57.3	56.7		
11501	Wattle Grove North	35 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	41	72.8	65.2	59.3		
60776	Wattle Grove North	35 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	41	68.3	62	58.1		
65962	Wattle Grove North	35 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	41	73.1	65.6	58.7		
57700	Wattle Grove North	35 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	41	65	59.9	55.9		
97503	Wattle Grove North	36 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	41	60.4	59.8	55.3		
20057	Wattle Grove North	36 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	63.6	59.8	54.3		
75455	Wattle Grove North	36 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	41	59.1	56.9	54.3		
39536	Wattle Grove North	36 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	41	60.1	56.9	53.4		
34487	Wattle Grove North	36 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	41	62.8	54.6	54.3		
86524	Wattle Grove North	36 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	41	54.6	53.7	51.3		
32866	Wattle Grove North	36 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	41	66.8	61.5	57		
93026	Wattle Grove North	36B ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	41	61.8	59.4	55.4		
81595	Wattle Grove North	37 BIRDWOOD AVENUE WATTLE GROVE												

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level			Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3		
					1	2	3					
			Key	Exceeds Standard NML			exceeds OOHW 3 NML					
84004	Wattle Grove North	38 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	57.8	57	53.9	
57545	Wattle Grove North	38 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.9	56	53.3	
51495	Wattle Grove North	38 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	60.4	58	54	
81329	Wattle Grove North	38 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	56.8	53.7	52	
98361	Wattle Grove North	38A ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	62.1	59.7	55.5	
19970	Wattle Grove North	38B ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	62.2	59.6	55.8	
17395	Wattle Grove North	39 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	62.8	60.4	56	
38823	Wattle Grove North	39 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.3	57.3	54.1	
88476	Wattle Grove North	39 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	73.5	64.1	58.2	
63961	Wattle Grove North	39 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	73.9	66.2	58.5	
17996	Wattle Grove North	39 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	64	59.4	55.2	
28487	Wattle Grove North	3A MONASH AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.8	56.2	53.9	
47761	Wattle Grove North	4 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	58.4	56.5	53.8	
71224	Wattle Grove North	4 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	67	62.6	57.8	
14526	Wattle Grove North	4 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.4	56.3	54.2	
107304	Wattle Grove North	4 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.5	56.9	53.3	
75946	Wattle Grove North	4 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	62.6	59.4	55.7	
60256	Wattle Grove North	4 BUNGGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	67.2	60.5	56.1	
79182	Wattle Grove North	4 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.8	57.3	55.5	
56119	Wattle Grove North	4 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	70.2	63.6	58.7	
29539	Wattle Grove North	4 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	64.6	63.4	59.4	
32002	Wattle Grove North	4 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	68	63.9	57.7	
85364	Wattle Grove North	4 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	66.4	61.2	55.4	
38948	Wattle Grove North	4 FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	56.2	54.9	52.4	
93802	Wattle Grove North	4 GLASGOW STREET WATTLE GROVE	RES	46	41	41	41	41	60.2	59.6	56.8	
75324	Wattle Grove North	4 HAMILTON AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.8	58.2	55.9	
5398	Wattle Grove North	4 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.3	62.1	57.1	
107313	Wattle Grove North	4 MONASH AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.2	56.5	52	
49709	Wattle Grove North	4 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	64.2	59.1	54.8	
26141	Wattle Grove North	4 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	69.8	64.2	58.9	
23798	Wattle Grove North	4 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	64.2	61.9	58	
62079	Wattle Grove North	4 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.5	62.1	53.1	
19922	Wattle Grove North	4 ROBERTSON CLOSE WATTLE GROVE	RES	46	41	41	41	41	58.7	56.6	53.9	
91134	Wattle Grove North	4 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	65.6	60.8	56.9	
14653	Wattle Grove North	4 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	62.1	59.9	55	
75546	Wattle Grove North	4 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66.6	61.5	56.5	
75866	Wattle Grove North	4 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	62.8	61	56.3	
72524	Wattle Grove North	4 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	65.6	60	55.9	
39944	Wattle Grove North	40 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	62.3	58.7	56.1	
62182	Wattle Grove North	40 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	60.9	57	53.8	
32909	Wattle Grove North	40 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.2	56.1	53.3	
60022	Wattle Grove North	40 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	60.3	58.3	54.7	
59491	Wattle Grove North	40 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	55.5	55.2	52.3	
33940	Wattle Grove North	41 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	62.4	59.3	50.7	
62478	Wattle Grove North	41 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.2	57.4	52.8	
18721	Wattle Grove North	41 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	65.4	60.2	55.6	
41594	Wattle Grove North	42 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	64.7	58.6	55.7	
19605	Wattle Grove North	42 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.3	52.2	49.2	
49208	Wattle Grove North	42 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.1	56	53.3	
45978	Wattle Grove North	42 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	60.6	57.8	54.6	
69048	Wattle Grove North	42 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	55.2	54.4	52.4	
10387	Wattle Grove North	43 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.4	53	53.6	
17875	Wattle Grove North	43 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.6	57.7	53.9	
27859	Wattle Grove North	43 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	67.4	62.3	57.7	
62699	Wattle Grove North	44 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	63.6	61.3	58.1	
43028	Wattle Grove North	44 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.8	55.9	47.1	
63215	Wattle Grove North	44 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	58	55.9	53.3	
97084	Wattle Grove North	44 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	59.8	58.2	54.5	
102017	Wattle Grove North	44 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	57.3	56.3	53.1	
48013	Wattle Grove North	45 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.6	58.3	55.7	
33960	Wattle Grove North	45 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	65.8	60.5	55.9	
39249	Wattle Grove North	46 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	62.9	60.7	57.9	
28811	Wattle Grove North	46 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	60.1	56.4	52.6	
90041	Wattle Grove North	46 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.1	56	53.2	
26844	Wattle Grove North	46 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	59.7	56.9	53.8	
11121	Wattle Grove North	46 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	57.9	56.1	54.6	
33096	Wattle Grove North	47 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	63	59.9	56.2	
14650	Wattle Grove North	47 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	66.1	60.9	56.4	
32796	Wattle Grove North	48 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	63	59.3	57.7	
25081	Wattle Grove North	48 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	58	56	53.3	
74656	Wattle Grove North	48 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	59.7	56.9	53.8	
12658	Wattle Grove North	48 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	56.1	54.4	53.1	
25148	Wattle Grove North	49 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	64.7	59.6	55.3	
49055	Wattle Grove North	5 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	64.6	59.6	55.5	
9047	Wattle Grove North	5 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	58	55.7	54.3	
64244	Wattle Grove North	5 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	60.6	57.7	54.7	
85741	Wattle Grove North	5 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	59	57.2	53.4	
15136	Wattle Grove North	5 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.7	58.6	55	
20421	Wattle Grove North	5 BUNGGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	66.5	61.3	56.3	
53275	Wattle Grove North	5 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.6	59	55.6	
53082	Wattle Grove North	5 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	61.2	59.1	54.2	
22877	Wattle Grove North	5 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.4	63.2	58	
60498	Wattle Grove North	5 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	65.9	61.5	55	
40899	Wattle Grove North	5 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	63.5	59.2	55.5	
66447	Wattle Grove North	5 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	68.1	62.7	57.9	
24361	Wattle Grove North	5 FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	56.3	54.6	52.2	
93303	Wattle Grove North	5 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	67.7	61.5	57.7	
32693	Wattle Grove North	5 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	66.9	63.8	59.1	
46365	Wattle Grove North	5 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	65.9	60.6	55.8	
64161	Wattle Grove North	5 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	69.6	59	50.2	
20042	Wattle Grove North	5 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	63.8	59.9	57	
62678	Wattle Grove North	5 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	64.6	60.7	56.5	
75891	Wattle Grove North	5 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	65.9	62.6	56.8	
90102	Wattle Grove North	5 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	60.8	57.9	54.5	
11346	Wattle Grove North	5 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66	60.7	56.2	
10952	Wattle Grove North	5 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	61.5	62.3	58.2	
13172	Wattle Grove North	5 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	64.3	59	55.1	
63167	Wattle Grove North	5 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	69.2	62.6	56.6	
57608	Wattle Grove North	50 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	58.6	56.2	53.4	

ID	NCA	Address	Land use	Laeq, 15 minute noise level								
				Noise management level						Predicted helicopter noise		
				Standard hours	OOHW Period			Area 1	Area 2	Area 3		
					1	2	3					
Key				Exceeds Standard NML			exceeds OOHW 3 NML					
91046	Wattle Grove North	50 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	59.4	56.8	53.7	
96454	Wattle Grove North	50 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	55.4	53.7	52	
64678	Wattle Grove North	51 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	65.3	60.2	55.2	
68333	Wattle Grove North	52 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	58.3	56	53.9	
60309	Wattle Grove North	52 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	59.6	56.8	53.7	
23341	Wattle Grove North	52 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	57.2	54.9	51.8	
27161	Wattle Grove North	53 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	64.5	59.5	55.1	
58055	Wattle Grove North	54 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	58.1	56	53.3	
22465	Wattle Grove North	54 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	59.3	56.7	53.8	
32346	Wattle Grove North	54 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	56.8	54.5	52	
69995	Wattle Grove North	55 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	66.4	61.2	56.6	
70422	Wattle Grove North	56 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	59.2	56.8	54.1	
43666	Wattle Grove North	56 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	55.6	56.2	54.3	
14465	Wattle Grove North	58 MEEHAN AVENUE HAMMONDVILLE	RES	46	41	41	41	41	56.4	52.5	50.7	
64441	Wattle Grove North	5A MONASH AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.6	56.2	53.9	
36577	Wattle Grove North	6 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	58.8	56.2	53.9	
12048	Wattle Grove North	6 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	66	61.4	56.6	
79000	Wattle Grove North	6 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.1	58.7	55.7	
8648	Wattle Grove North	6 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	56.8	55.2	53	
38750	Wattle Grove North	6 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	63.7	60.4	56.2	
4118	Wattle Grove North	6 BUNGGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	67.7	62.4	57.7	
40302	Wattle Grove North	6 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.7	57.2	54.3	
61171	Wattle Grove North	6 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.1	65.2	59.8	
95026	Wattle Grove North	6 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	63.9	61.4	56.9	
21274	Wattle Grove North	6 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	70.5	64	57.5	
77558	Wattle Grove North	6 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	63.9	59	54.7	
32755	Wattle Grove North	6 HAMILTON AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.8	58	54	
2893	Wattle Grove North	6 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.7	62.3	59.7	
22332	Wattle Grove North	6 MONASH AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.5	58.7	55.4	
20195	Wattle Grove North	6 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	65	61.1	56.5	
19439	Wattle Grove North	6 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	70.5	66.7	59.3	
34503	Wattle Grove North	6 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	62.5	57.3	44.7	
63140	Wattle Grove North	6 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	66.9	61.2	55.7	
85502	Wattle Grove North	6 ROBERTSON CLOSE WATTLE GROVE	RES	46	41	41	41	41	59	56.6	53.8	
67592	Wattle Grove North	6 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	65.7	61	57.1	
80899	Wattle Grove North	6 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	62.7	60.4	56.3	
93608	Wattle Grove North	6 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66.7	61.5	56.7	
23190	Wattle Grove North	6 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	62.7	59.9	57.4	
16761	Wattle Grove North	6 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	63.1	60.7	55.9	
14093	Wattle Grove North	7 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	63.9	59.4	55.7	
95258	Wattle Grove North	7 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.7	57.7	55	
27958	Wattle Grove North	7 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.9	57.5	54.5	
70326	Wattle Grove North	7 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	57.7	55.9	52.4	
64246	Wattle Grove North	7 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.8	58.5	54.9	
35378	Wattle Grove North	7 BUNGGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	66.2	61.1	56.6	
68998	Wattle Grove North	7 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	62.2	59	55.6	
43459	Wattle Grove North	7 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.6	57.5	53.9	
90403	Wattle Grove North	7 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	68.1	62.2	57	
50301	Wattle Grove North	7 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	65.9	61.7	55.5	
11809	Wattle Grove North	7 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	64.2	58.2	50.2	
59405	Wattle Grove North	7 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	65.4	60.2	55.7	
45085	Wattle Grove North	7 FREDA PLACE HAMMONDVILLE	RES	46	41	41	41	41	58.6	57	54.7	
80956	Wattle Grove North	7 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	68.5	63.1	57.5	
60909	Wattle Grove North	7 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	70	64.1	58.7	
94875	Wattle Grove North	7 MONASH AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.3	54.9	50.4	
36164	Wattle Grove North	7 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	64.1	60.8	55.7	
14358	Wattle Grove North	7 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	70.2	66.4	62	
13266	Wattle Grove North	7 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	64.4	61	55.9	
81995	Wattle Grove North	7 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	64.7	60.8	56.5	
40327	Wattle Grove North	7 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	61.4	59.1	54.4	
28606	Wattle Grove North	7 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66.5	60.7	56.3	
26112	Wattle Grove North	7 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	60.3	61.3	56.7	
97936	Wattle Grove North	7 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	62.9	58.8	55	
38859	Wattle Grove North	7 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.8	62.4	57.2	
76722	Wattle Grove North	8 ANZAC MEWS WATTLE GROVE	RES	46	41	41	41	41	59.3	56.1	54	
62350	Wattle Grove North	8 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	65.3	60.3	55.5	
94094	Wattle Grove North	8 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	60.4	58.6	56.2	
40547	Wattle Grove North	8 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	56.7	55.4	53	
17286	Wattle Grove North	8 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	62.6	48.6	44.4	
2846	Wattle Grove North	8 BUNGGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	63.1	60.3	56.8	
2417	Wattle Grove North	8 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	62.7	59	56.2	
78109	Wattle Grove North	8 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	60.7	57.1	54.4	
47779	Wattle Grove North	8 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	70.4	63.8	57.9	
84522	Wattle Grove North	8 COLO COURT WATTLE GROVE	RES	46	41	41	41	41	64	60.7	53.4	
97007	Wattle Grove North	8 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	70.1	64.1	58.2	
56041	Wattle Grove North	8 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	63.4	59.6	55.5	
20495	Wattle Grove North	8 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	67.3	61.7	56.9	
81211	Wattle Grove North	8 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	71.2	62.1	55.9	
4646	Wattle Grove North	8 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	67.8	62.9	57.4	
45613	Wattle Grove North	8 MONASH AVENUE WATTLE GROVE	RES	46	41	41	41	41	61.2	58.3	53.8	
50284	Wattle Grove North	8 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	63.3	59.2	55.6	
12297	Wattle Grove North	8 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	69.2	64.9	58.6	
35034	Wattle Grove North	8 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	63.6	60.2	57.7	
68264	Wattle Grove North	8 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	64.6	59.2	56.1	
11829	Wattle Grove North	8 ROBERTSON CLOSE WATTLE GROVE	RES	46	41	41	41	41	58.9	56.4	53.8	
72028	Wattle Grove North	8 SANDOVER COURT WATTLE GROVE	RES	46	41	41	41	41	65.8	61	57.1	
68415	Wattle Grove North	8 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	62.1	47.6	46.5	
34660	Wattle Grove North	8 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	67.8	62.4	57	
50110	Wattle Grove North	8 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	62.6	60.5	56.5	
16869	Wattle Grove North	8 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	61.9	60.8	56.3	
54075	Wattle Grove North	9 BARWON COURT WATTLE GROVE	RES	46	41	41	41	41	64.3	60.3	56.2	
21826	Wattle Grove North	9 BIRDWOOD AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.5	57.9	53.9	
84508	Wattle Grove North	9 BLAMEY ROAD WATTLE GROVE	RES	46	41	41	41	41	59.5	57.4	54.4	
76439	Wattle Grove North	9 BRIDGES AVENUE WATTLE GROVE	RES	46	41	41	41	41	58.9	54.6	46.1	
46527	Wattle Grove North	9 BUNDARRA COURT WATTLE GROVE	RES	46	41	41	41	41	61.5	58.4	55.6	
50226	Wattle Grove North	9 BURDEKIN COURT WATTLE GROVE	RES	46	41	41	41	41	61.5	58.8	55.5	
53769	Wattle Grove North	9 CHAUVEL AVENUE WATTLE GROVE	RES	46	41	41	41	41	59.4	58.2	53.9	
91689	Wattle Grove North	9 COLLIE COURT WATTLE GROVE	RES	46	41	41	41	41	69.4	62.3	56.4	
12309	Wattle Grove North	9 CULGOA COURT WATTLE GROVE	RES	46	41	41	41	41	65.8	62.7	57.2	

ID	NCA	Address	Land use	Laeq, 15 minute noise level									
				Noise management level				Predicted helicopter noise					
				Standard hours	OOHW Period			Area 5	Area 2	Area 3			
					1	2	3						
			Key	Exceeds Standard NML			exceeds OOHW 3 NML						
37852	Wattle Grove North	9 DELFIN DRIVE WATTLE GROVE	RES	46	41	41	41	41	64.7	61	56.2		
27116	Wattle Grove North	9 DERWENT COURT WATTLE GROVE	RES	46	41	41	41	41	66.1	61	56.2		
11643	Wattle Grove North	9 GLENELG COURT WATTLE GROVE	RES	46	41	41	41	41	68.3	63	58.7		
65936	Wattle Grove North	9 JENOLAN COURT WATTLE GROVE	RES	46	41	41	41	41	69.2	64	59.2		
16940	Wattle Grove North	9 MURRAY COURT WATTLE GROVE	RES	46	41	41	41	41	63	60.7	55.2		
39833	Wattle Grove North	9 NAMOI COURT WATTLE GROVE	RES	46	41	41	41	41	70	65	59.3		
15657	Wattle Grove North	9 ORARA COURT WATTLE GROVE	RES	46	41	41	41	41	64.6	60.8	56.2		
69703	Wattle Grove North	9 PAROO COURT WATTLE GROVE	RES	46	41	41	41	41	64.6	60.8	56.9		
82429	Wattle Grove North	9 TIMBARA COURT WATTLE GROVE	RES	46	41	41	41	41	61.2	57.9	53.5		
31560	Wattle Grove North	9 TODD COURT WATTLE GROVE	RES	46	41	41	41	41	66.4	60.8	56.2		
34170	Wattle Grove North	9 TWEED COURT WATTLE GROVE	RES	46	41	41	41	41	64.7	60.7	56.8		
69350	Wattle Grove North	9 WARREGO COURT WATTLE GROVE	RES	46	41	41	41	41	62.4	58.8	55.1		
61814	Wattle Grove North	9 WOMBEYAN COURT WATTLE GROVE	RES	46	41	41	41	41	68.4	62.4	57.2		
85538	Wattle Grove North	9A BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	65.3	61.3	56.8		
87639	Wattle Grove North	9B BUNGONIA COURT WATTLE GROVE	RES	46	41	41	41	41	62.4	54.4	51.3		
6338	Wattle Grove North	UNIT 1/ 136-138 HEATHCOTE ROAD HAMMONDVI	RES	46	41	41	41	41	58.3	54.7	52.4		
48880	Wattle Grove North	UNIT 1/ 142 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	55.9	54.5	52.4		
8859	Wattle Grove North	UNIT 1/ 6 FRED A PLACE HAMMONDVILLE	RES	46	41	41	41	41	58.7	56.8	53.2		
4924	Wattle Grove North	UNIT 10/ 136-138 HEATHCOTE ROAD HAMMONDV	RES	46	41	41	41	41	57.2	54.4	49.9		
41219	Wattle Grove North	UNIT 12/ 142 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	55.3	54	51.8		
32413	Wattle Grove North	UNIT 12/ 144 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	57.6	56.3	52.1		
39326	Wattle Grove North	UNIT 13/ 136-138 HEATHCOTE ROAD HAMMONDV	RES	46	41	41	41	41	57.1	56.1	54.4		
21916	Wattle Grove North	UNIT 13/ 144 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	56.2	54.5	52.3		
55157	Wattle Grove North	UNIT 15/ 136-138 HEATHCOTE ROAD HAMMONDV	RES	46	41	41	41	41	56.9	57	55		
23627	Wattle Grove North	UNIT 18/ 136-138 HEATHCOTE ROAD HAMMONDV	RES	46	41	41	41	41	57.7	54.7	52.6		
15667	Wattle Grove North	UNIT 2/ 144 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	55.9	52	50.2		
24407	Wattle Grove North	UNIT 3/ 142 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	55.2	54.4	52.2		
41390	Wattle Grove North	UNIT 5/ 136-138 HEATHCOTE ROAD HAMMONDVI	RES	46	41	41	41	41	57.8	56.5	53.8		
9434	Wattle Grove North	UNIT 6/ 140 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	57.3	54	50.2		
19053	Wattle Grove North	UNIT 7/ 142 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	56.8	56.2	52.7		
53813	Wattle Grove North	UNIT 8/ 12 FRED A PLACE HAMMONDVILLE	RES	46	41	41	41	41	56.8	55.1	52.6		
4120	Wattle Grove North	UNIT 9/ 144 HEATHCOTE ROAD HAMMONDVILLE	RES	46	41	41	41	41	57.8	54.7	51.9		