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4th February 2026

Report No. 25102.1

Title: Environmental noise impact assessment for ELT Recycling at 308 George Town Road, Rocherlea, TAS 7248.

Brief: Compile environmental noise impact assessment for potential noise emanating from proposed recycled tyre processing at 308 George Town Road, Rocherlea, TAS.

**Client: ELT Recycling
147 Northbourne Road
Campbellfield
VIC 3061**

Contact: Maurice Patti

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Executive Summary

Audiometric and Acoustic Services (A&AS) was commissioned by ELT Recycling Pty Ltd to undertake an environmental noise impact assessment for the proposed tyre processing facility located at 308 George Town Road, Rocherlea, Tasmania. The assessment forms part of the Environmental Effects Report (EER) and is required under the Environmental Management and Pollution Control Act 1994 (EMPCA) and the Environment Protection Policy (Noise) 2009.

The proposal involves the mechanical processing of end-of-life tyres within an existing warehouse structure situated in a General Industrial Zone. Noise emissions associated with the activity include equipment such as a tyre shredder, de-beader, and supporting materials handling plant. The assessment evaluates potential noise impacts on nearby Noise Sensitive Premises (NSPs) based on measured background levels and predictive modelling in accordance with ISO 9613-2 methodology.

Background monitoring was conducted at a representative receiver location a 7-day period. Noise criteria were established using the EPA Tasmania guideline approach of $L_{A90} + 5$ dB, with adjustments for tonal or impulsive noise where applicable. Predictive modelling was undertaken using iNoise v2024.3, accounting for building shielding, source directivity, and site topography.

The results indicate that noise emissions from the facility, under worst-case operating conditions, are expected to comply with the established criteria at all identified NSPs. Accordingly, the proposal is considered to present a low risk of environmental nuisance, and is consistent with the objectives of the EPP (Noise) 2009.

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1 Introduction

Audiometric and Acoustic Services (A&AS) has been commissioned by ELT Recycling Pty Ltd to assess compliance with the Environmental Management and Pollution Control Act 1994 (EMPCA) and the Environment Protection Policy (Noise) 2009, in accordance with the EPA Tasmania Environmental Assessment Guidelines. The assessment applies the methodology consistent with the EPA's Noise Measurement and Assessment procedures to evaluate potential environmental noise emissions from the proposed ELT Recycling facility at 308 George Town Road, Rocherlea, Tasmania.

A glossary of the acoustic terminology used in this report is presented in Appendix A.

2 Site Description

The proposed project site is located at 308 George Town Road, Rocherlea, TAS 7248 as shown below in Figure 1.

The topography in the immediate area between the site and nearby noise sensitive areas is nominally flat for the purposes of the acoustic assessment.



Figure 1 Location of Project Site (Image Source: Google Earth 2025)

Figure 2 presents the proposed layout of the site.



Figure 2 Proposed Plan (Image Source: ELT)

2.1 Proposed Operations

It is understood that the recycling yard is proposed to operate between 7 am to 5 pm Monday - Friday and occasionally Saturday 8 am - 3 pm.

3 Noise Sensitive Premise

The nearest and potentially most affected Noise Sensitive Premises (NSPs) have been identified as per Figure 3. As sound attenuates with distance, in the absence of any major reflecting surface or similar, it is taken that if the nearer residences are compliant then any residences at further distance will also be compliant.

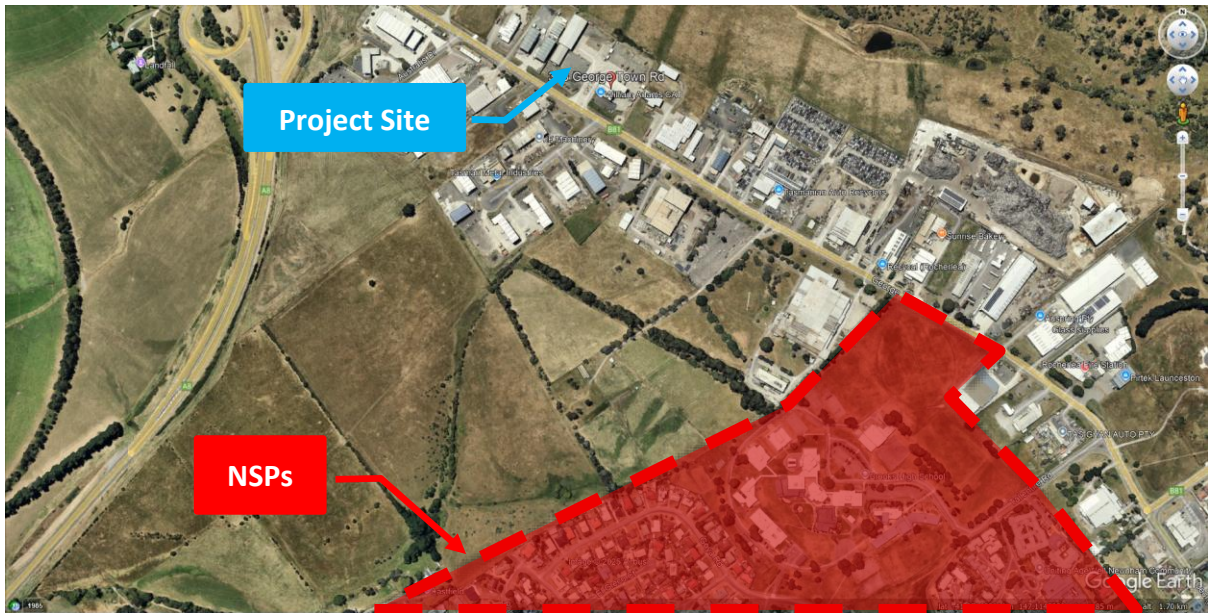


Figure 3 Location of NSPs (Image Source: Google Earth 2025)

Key receivers have been located as per Table 1 as these are believed to be the most exposed and likely affected based on line of sight or proximity to the project site.

Table 1 Noise Sensitive Premises

Location Reference	Address	Comment
NSP 01	215 George Town Rd, Rocherlea TAS 7248	Brooks High School
NSP 02	21 Goya Rd, Newnham TAS 7248	Single storey dwelling with receiver at 1.5 m
NSP 03	17 Goya Rd, Newnham TAS 7248	Single storey dwelling with receiver at 1.5 m

4 Existing Acoustic Environment

Background noise levels were measured by noise logger at the rear of 53 Roberts Cres, Newnham TAS from Tuesday 9th of September 2025 until the 16th September 2025. No adjustment for reflection was required.

The background noise levels were measured at a conservative location representative of the nearest NSPs as presented below in Figure 4.



Figure 4 Location of Background Noise Level measurements (Image Source: Google Maps 2025)

4.1 Background Level Measurements

The background noise levels determined in accordance with the legislation are presented below Table 2. Wednesday 10th September 2025 has been confirmed not to have been affected by weather conditions.

Table 2 Measured Background Levels

Date and Start Time	Minimum Background Sound Level, $L_{A90(10min)}$ dB(A)
Tuesday, 9 September 2025	47
Wednesday, 10 September 2025	37
Thursday, 11 September 2025	38
Friday, 12 September 2025	40
Saturday, 13 September 2025	44
Sunday, 14 September 2025	-
Monday, 15 September 2025	45
Minimum	37

5 Noise Criteria

The following noise criterion is proposed at the nearest noise sensitive premises (NSPs).

Table 3 Noise Criteria

Period	Applicable Times	Background Noise Level, $L_{A90(10min)}$ dB(A)	Margin	Criterion L_{Aeq} dB(A)
Day	<ul style="list-style-type: none"> ▪ Monday to Saturday (except public holidays), from 7 am to 6 pm 	37	+5	42

Tonal, impulsive or other character penalties (e.g. +2 to +6 dB) may also be added where applicable as per EPP (Noise) 2009 – Section 5, and EPA Tas *Noise Measurement Procedures Manual*.

6 Site Assessment

An Industrial Noise Survey was undertaken on the morning of Wednesday the 26th of March 2025 of an equivalent ELT site at 147 Northbourne Road Campbellfield, VIC 3061.

It is noted that the tyre de-beader was not in use during the site visit.

Table 4 presents the results of the measurements undertaken.

Table 4 Noise Measurement Results for Each Section and Item Associated with the Noise Source

Area	Item	Noise source (make, model & description)	Operating conditions and process	Measurement position	LAeq, T dB(A)	Leq, dB (C)	Extent of affected area	LCpeak
Warehouse	1	Shredder MC – 2 people – FHE0086	Typical single task	At operator's ear	92	97	Immediate area @ 1m	119
Warehouse	2	Rubber NC – FHE0087 machine	Typical single task	At operator's ear	98	104	Immediate area @ 1m	125
Warehouse	3	Shredding at 149 NE Door (portable)	Typical single task	At operator's ear	98	102	Immediate area @ 1m	122
Warehouse	4	Box car forklift diesel – 2nd gear	Typical single task	At operator's ear	96	104	Immediate area @ 1m	120
Warehouse	5	S550 Five – 0090	Typical single task	At operator's ear	97	104	Immediate area @ 1m	120
Warehouse	6	Forklift Heli (bigger one) – No diesel – 0091	Typical single task	At operator's ear	95	103	Immediate area @ 1m	118
Warehouse	7	OTR Shredder MC – 0092	Typical single task	At operator's ear	102	117	Immediate area @ 1m	137

The loudest item of equipment was the OTR Shredder MC – 0092 at $L_{Aeq} = 102$ dB at 1 m. It is understood that a tyre de-beader is of a similar noise level. Therefore the noise level is doubled and a reverberant room level is calculated to represent the shredder and de-beader running at the same time.

The combined reverberant noise level within the proposed shed is calculated to be $L_{Aeq} = 80$ dB. This level serves as the basis for assessing sound transmission and environmental impact.

7 Noise Modelling

iNoise version V2026 environmental noise modelling software was used to model the possible environmental noise emissions from the project site to establish noise levels due to a potential worst-case operating scenario and to calculate relative noise contributions to establish any noise mitigation requirements.

Key modelling parameters include:

- Site layout and locations of key operational noise sources have been modelled according to onsite observations, drawings provided, and the latest Google Earth satellite imagery.
- iNoise version V2024.3 environmental noise modelling software conforms to ISO 9613-2:1996 Acoustics -- Attenuation of sound during propagation outdoors -- Part 2: General method of calculation (ISO, 1996).
- Building footprints and heights have been derived from the drawings provided, Google Earth and observations on site.
- Sources have been modelled as specified in Section 6.
- The proposed shed's transmission loss characteristics are proposed to be modelled both the walls and roof consisting of >0.4 mm steel sheeting, which corresponds to a R_w 21. It is assumed that roller doors will be open.
- NSP receivers are modelled as per Section 3.

7.1 Proposed Operations Noise Levels

Table 5 presents the highest calculated effective noise levels at the potentially most-affected NSPs with the proposed project site fully operating as per the proposed scenario with all doors open. No adjustments for tonality impulsive noise have been applied due to the likely inaudibility at the receivers.

Table 5 Effective Noise Level Results at NSPs

Name	Description	Height	'Day' Adjusted $L_{Aeq(10min)}$ (dB)
NSP 01	215 George Town Rd, Rocherlea TAS 7248	1.50	16✓
NSP 02	21 Goya Rd, Newnham TAS 7248	1.50	16✓
NSP 03	17 Goya Rd, Newnham TAS 7248	1.50	16✓
Criteria			42
Compliance			Yes✓

The effective noise levels (adjusted L_{Aeq}) presented in Table 5 indicate that all operational noise emissions as proposed will be below the lowest L_{A90} background level during the proposed 'day' period operations.

The proposed noise levels are calculated to be well below any Acoustic Environment Indicator Levels (see Appendix C) at any NSP.

The situation is seen as low risk of affecting amenity at any noise sensitive premises (NSPs).

It is anticipated that the existing façade of the shed is likely to reduce noise levels at the neighbouring site (320 George Town Rd, Rocherlea) to below $L_{Aeq} = 70$ dB (see Appendix C). The assumptions are that the reverberant noise level of 80 dB(A) would be attenuated by greater than 10 dBA given the corrugated steel façade.

Noise contour maps are presented in Appendix E.

8 Summary

Audiometric and Acoustic Services (A&AS) was commissioned by ELT Recycling Pty Ltd to undertake an environmental noise impact assessment for the proposed tyre processing facility located at 308 George Town Road, Rocherlea, Tasmania. The assessment forms part of the Environmental Effects Report (EER) and is required under the Environmental Management and Pollution Control Act 1994 (EMPCA) and the Environment Protection Policy (Noise) 2009.

The results indicate that noise emissions from the facility, under worst-case operating conditions, are expected to comply with the established criteria at all identified NSPs. Accordingly, the proposal is considered to present a low risk of environmental nuisance, and is consistent with the objectives of the EPP (Noise) 2009.

Respectfully,



S. Henderson
Principal Acoustic Consultant
M.A.A.S.

Reviewed by R. Feltwell, Acoustic Consultant.

Appendix A Definitions of Terminology

decibel	<p>Unit usually used to define sound pressure level relative to a reference pressure.</p> $dB = 20 \log_{10} \left(\frac{P}{P_{ref}} \right)$ <p>The following are examples of the decibel readings of every day sounds;</p> <p>0 dB The faintest sound we can hear</p> <p>30 dB A quiet library or in a quiet location in the country</p> <p>45 dB Typical open office space. Ambience in the city at night</p> <p>60 dB A vacuum cleaner in a typical lounge room</p> <p>70 dB The sound of a car passing on the street</p> <p>80 dB Loud music played at home</p> <p>90 dB The sound of a heavy truck passing on the street</p> <p>100 dB The sound of a rock band</p> <p>115 dB Limit of sound permitted in industry</p> <p>120 dB Deafening</p>
(A)	Reference to particular weighting network within a Sound Level Meter which modifies the linear response. 'A' weighting is designed to approximate the response of the human ear.
Sound Power Level	A measure of the total sound energy radiated by a source, per unit time. Mathematically, it is ten times the logarithm to the base ten of the ratio of the sound power (W) of the source to the reference sound power; where the reference sound power is 1×10^{-12} W. [Unit: dB]
Sound Pressure Level	The root-mean-square values of the pressure fluctuations above and below atmospheric pressure caused by the passage of a sound wave, usually expressed in decibels (re 20 μ Pa)
Free Field	In acoustics a free field is a measurement area not subject to significant reflection of acoustical energy. A free field measurement is typically not closer than 3.5 metres to any large flat object (other than the ground) such as a fence or wall or inside an anechoic chamber.
Effective Noise Level	The level of noise emitted from the commercial, industrial or trade premises ($L_{Aeq,30min}$), adjusted if appropriate for character and duration. (ENL) [Unit: dB(A)]
Fast - F	Dynamic characteristic - time averaging constant is 125m sec.
$L_{90,T}$	The noise level exceeded for 90% of a measurement period. Commonly accepted as the natural Background Noise Level as an A-weighted value.
Ambient Noise	The ambient noise level at a particular location is the overall environmental noise level caused by all noise sources in the area, both near and far, including all forms of traffic, industry, lawnmowers, wind in foliage, insects, animals, etc. Usually assessed as an energy average over a set time period 'T' ($L_{Aeq, T}$).
$L_{eq,T}$	Equivalent Continuous Sound Level. This is calculated on the basis of the average of the Sound Pressure Level (acoustic energy) over a period of time and is expressed in decibels. This can be thought of as the time average sound pressure level. [Unit: dB / dB(A)]
$L_{Aeq,T}$	The 'A' weighted Equivalent Continuous Sound Level.
ENL	See 'Effective Noise Level'.

Octave band	Division of the frequency range used for the purposes of acoustic design and noise assessment, allowing for a more targeted control of sound as it varies with frequency. Noise is measured in octave bands using frequency filters as specified in Australian standard AS IEC 61260.1:2019, Electroacoustics - Octave-band and Fractional-octave-band Filters.
R_w	Weighted Sound Reduction Index. A single number rating of the airborne sound insulation performance of a specific building element in the absence of flanking transmission. A higher R_w value indicates better airborne sound insulation. [Unit: dB]
Airborne noise	Airborne noise comes from common sound sources such as voices, TVs and radios.
Sound Attenuation	A reduction of sound due to distance, enclosure or some other device. If an enclosure is placed around a machine, or an attenuator (muffler or silencer) is fitted to a duct, the noise emission is reduced or attenuated. An enclosure that attenuates the noise level by 20 dB reduces the sound energy by one hundred times.
LFN	Low Frequency Noise. Noise with low frequency components containing significant acoustic energy within a frequency range defined by one-third octave bands 10 Hz to 160 Hz.
Third Octave Band	A division of the frequency range that can be used when octave bands don't provide sufficient resolution. Each octave band comprises three one-third octave bands. Noise is measured in one-third octave bands using frequency filters as specified in Australian Standard AS IEC 61260.1:2019 Electroacoustics—Octave band and fractional-octave-band filters.

Appendix B Instrumentation

Convergence

NSRT Mk 4

Serial No. AlvULf0aWd83qJHC6yhRID

Bruel & Kjaer

Sound Level Calibrator

Serial No. 1 441 408

NATA Laboratory calibration due 16th October 2025

The equipment was check calibrated before and after the measurements. No significant change was found to have occurred.

Appendix C Acoustic Environment Indicator Levels

Table 1 – Acoustic environment indicator levels

Specific environment	Critical health effect(s)	L_{Aeq} [dB(A)]	Time base [hours]	L_{Amax} fast [dB]
Outdoor living area	Serious annoyance, daytime and evening	55	16	-
	Moderate annoyance, daytime and evening	50	16	-
Dwelling, indoors	Speech intelligibility & moderate annoyance, daytime & evening	35	16	-
Inside bedrooms	Sleep disturbance, night-time	30	8	45
Outside bedrooms	Sleep disturbance, window open (outdoor values)	45	8	60
School class rooms & pre-schools, indoors	Speech intelligibility, disturbance of information extraction, message communication	35	during class	-
Pre-school bedrooms, indoor	Sleep disturbance	30	sleeping-time	45
School, playground outdoor	Annoyance (external source)	55	during play	-
Hospital, ward rooms, indoors	Sleep disturbance, night-time	30	8	40
	Sleep disturbance, daytime and evenings	30	16	-
Hospitals, treatment rooms, indoors	Interference with rest and recovery	(1)		
Industrial, commercial, shopping and traffic areas, indoors and outdoors	Hearing impairment	70	24	110
Ceremonies, festivals and entertainment events	Hearing impairment (patrons:<5 times/year)	100	4	110
Public addresses, indoors and outdoors	Hearing impairment	85	1	110
Music and other sounds through headphones/earphones	Hearing impairment (free-field value)	85 ⁽²⁾	1	110
Impulse sounds from toys, fireworks and firearms	Hearing impairment (adults)	-	-	140 ⁽³⁾
	Hearing impairment (children)	-	-	120 ⁽³⁾
Outdoors in parkland and conservation areas	Disruption of tranquillity	(4)		

Footnotes to Table 1, Clause 18

- (1) As low as possible.
- (2) Under headphones, adapted to free-field values.
- (3) Peak sound pressure (not $L_{AF,max}$) measured 100mm from the ear.
- (4) Existing quiet outdoor areas should be preserved and the ratio of intruding noise to natural background sound should be kept low.

Note that for the purposes of this Table, 'time base' means the period of time over which the equivalent continuous sound pressure level L_{Aeq} is determined.

Appendix D Weather Conditions

Launceston, Tasmania September 2025 Daily Weather Observations

Most observations from Ti Tree Bend, but pressure and cloud from the airport.

Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9 am					3 pm						
		Min	Max				Dir	Spd	Time	Temp	RH	Cld	Dir	Spd	MSLP	Temp	RH	Cld	Dir	Spd	MSLP
		°C	°C				km/h	km/h	local	°C	%	g ^h	km/h	hPa	°C	%	g ^h	km/h	hPa		
1	Mo	5.1	17.4	0			WSW	37	14:48	11.1	67		NNW	11		16.1	33		WSW	22	
2	Tu	0.2	14.4	0			NW	70	14:02	5.4	93	6	Calm		11.8	83	7	NNW	19		
3	We	5.4	12.3	4.8			NW	46	12:42	10.7	83	8	NW	15	11.1	75	8	NNW	22		
4	Th	6.5	12.3	3.4			WNW	56	15:35	7.5	89	8	N	17	11.1	51	7	W	22		
5	Fr	-0.4	14.3	0			ESE	22	11:38	6.9	71		E	7	13.6	36		E	7		
6	Sa	0.8	15.3	0			NW	22	11:43	6.7	84	6	Calm		14.9	51	7	NW	11		
7	Su	3.4	14.8	0.6			NW	37	16:22	7.9	92	8	N	4	13.6	94	8	NNW	15		
8	Mo	7.8	15.6	32.6			NW	57	22:24	12.8	92	8	NNW	22	14.4	74	1	NNW	30		
9	Tu	5.8	15.5	4.0			NW	50	12:45	9.5	65		NNW	26	14.7	49		W	20		
10	We	0.7	14.5	0			S	31	13:21	8.3	73		ENE	4	13.2	45	2	E	9		
11	Th	1.0	15.9	0						7.3	86		NNW	4	15.4	54		NW	17		
12	Fr	5.8	18.6	0			W	39	16:33	11.0	80	6	NW	7	18.4	47		WNW	17		
13	Sa	5.5	17.4	0			NNW	31	15:41	11.0	91	1	NW	9	17.2	67	7	NW	19		
14	Su	8.8	16.7	0.6			NNW	50	14:40	12.9	85	8	NNW	20	15.6	69	3	NNW	30		
15	Mo	11.4	19.2	0			NW	52	15:05	15.9	67		NNW	20	19.0	50		NW	31		
16	Tu	10.8	15.0	9.6			NW	65	14:17	11.0	90	8	NNW	13	14.5	65	8	NW	39		
17	We	7.6	14.4	6.0			W	56	13:31	10.9	63	7	WNW	15	13.0	45	8	WNW	19		
18	Th	4.2	15.3	0			NW	43	14:14	10.5	72	6	NW	7	13.8	57	8	NNW	30		
19	Fr	9.6	17.1	6.3			NW	59	20:50	12.5	85	8	NNW	15	15.9	62	5	NNW	30		
20	Sa	5.9	14.0	1.0			W	46	11:46	9.6	63		NNW	20	12.4	48	7	NW	20		
21	Su	7.7	15.5	0			NW	48	14:13	13.0	64	3	NNW	20	14.7	66	8	NW	28		
22	Mo	2.7	14.8	1.8			SW	35	11:11	9.8	62	2	NW	9	13.5	40		SW	13		
23	Tu	4.8	19.1	0			WNW	54	16:12	13.5	75		NW	13	17.0	69		NNW	17		
24	We	8.9	16.5	0			W	56	09:19	14.0	48		W	28	15.6	33		W	22		
25	Th	8.6	16.8	0			WNW	46	14:07	12.2	63	3	NNW	19	14.6	44		W	19		
26	Fr	7.3	15.3	0			NNW	48	16:03	9.0	95	8	NW	2	14.8	82	8	NNW	24		
27	Sa	8.7	14.9	1.4			NW	63	14:21	13.4	57		NW	24	13.7	67	7	NW	33		
28	Su	4.8	17.1	0.4			WNW	31	12:25	10.9	62	1	NW	13	15.2	37	3	SW	9		
29	Mo	1.5	15.3	0			NW	35	13:21	8.8	74		N	4	14.6	56	8	NNW	19		
30	Tu	8.9	16.6	2.0			NNW	26	18:13	11.2	92	7	SSE	4	15.6	83	8	N	2		
Statistics for September 2025																					
Mean		5.7	15.7							10.5	76	5		12		14.6	57	6		20	
Lowest		-0.4	12.3	0						5.4	48	1	Calm		11.1	33	1	N	2		
Highest		11.4	19.2	32.6			NW	70		15.9	95	8	W	28		19.0	94	8	NW	39	
Total				74.5																	

IDCJDW7025.202509 Prepared at 13:03 UTC on Tuesday 7 October 2025

Appendix E Noise Contour Maps



Figure 5 Noise Levels at Neighbouring Commercial Site

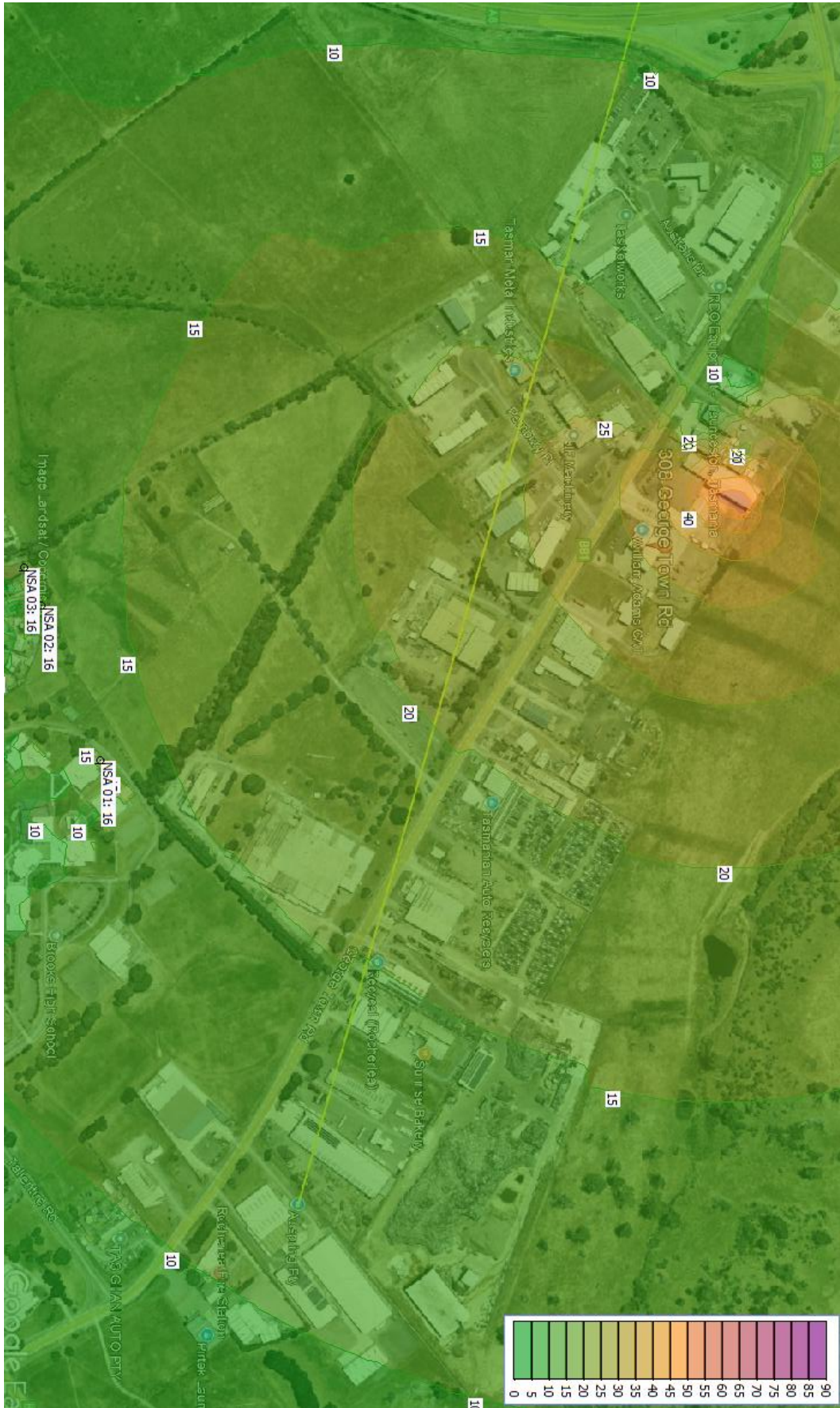


Figure 6 Noise Contours at NSPs