

# **ATTACHMENTS**

# **LOCAL PLANNING PANEL MEETING**

Wednesday 31 May 2023 at 4:00pm



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# **LOCAL PLANNING PANEL**

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# **ATTACHMENT/S**

# **REPORT NO. LPP2/23**

# ITEM 1

- 1. ARCHITECTURAL PLANS
  - 2. ACOUSTIC REPORT
- 3. PLAN OF MANAGEMENT
  - **4. LOCALITY PLAN**
- 5. ON SITE WASTEWATER MANAGEMENT REPORT

# ATTACHMENT L - ITEM L

# No.4 HENSTOCK ROAD ARCADIA PROPOSED TEMPORARY USE - FUNCTION CENTRE S8.2 APPLICATION TO REVIEW

HORNSBY COUNCIL



Sheet List Table	Sheet Title	COVER SHEET	SURVEY PLAN	LOCALITY PLAN WITH AERIAL IMAGE	SITE PLAN - SHEET 1	SITE PLAN - SHEET 2	SECONDARY DWELLING FLOOR PLAN	FENCING PLAN	ACOUSTIC MEASURES PLAN	SECONDARY DWELLING ELEVATION
	Sheet Number	100	101	102	111	112	121	131	141	142

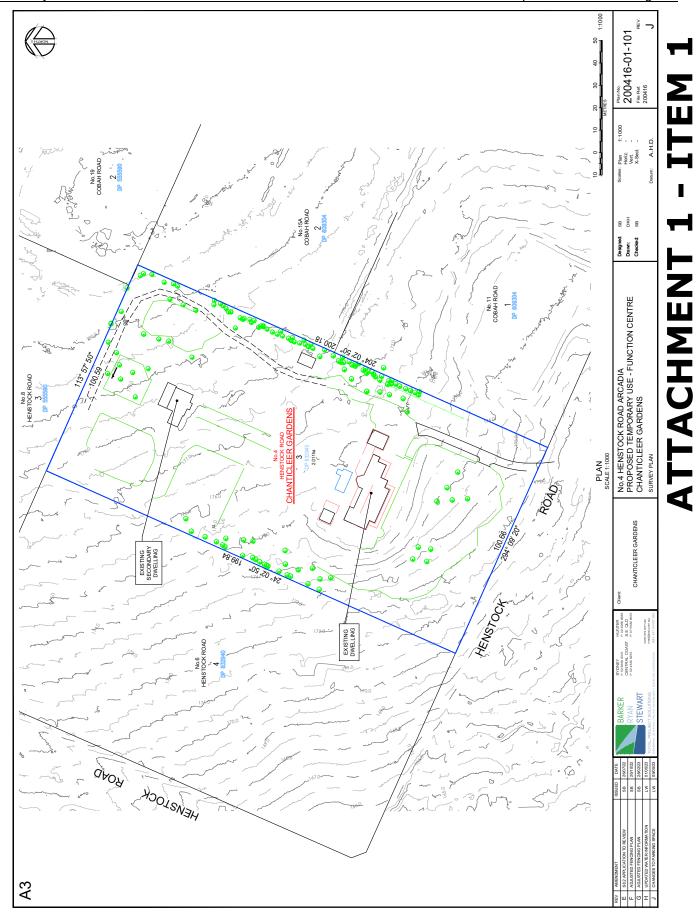


Prepared for: CHANTICLEER GARDENS

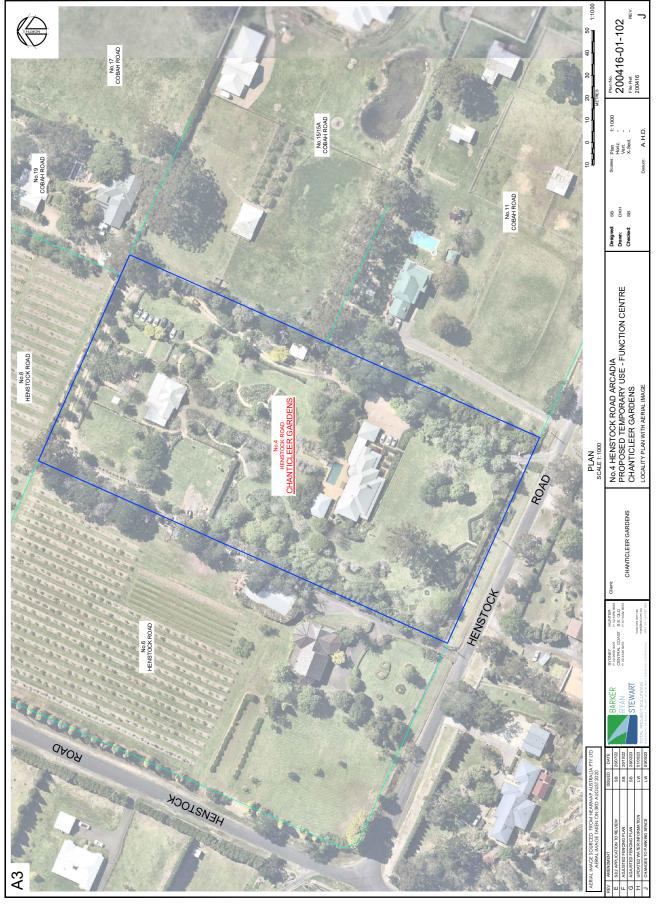
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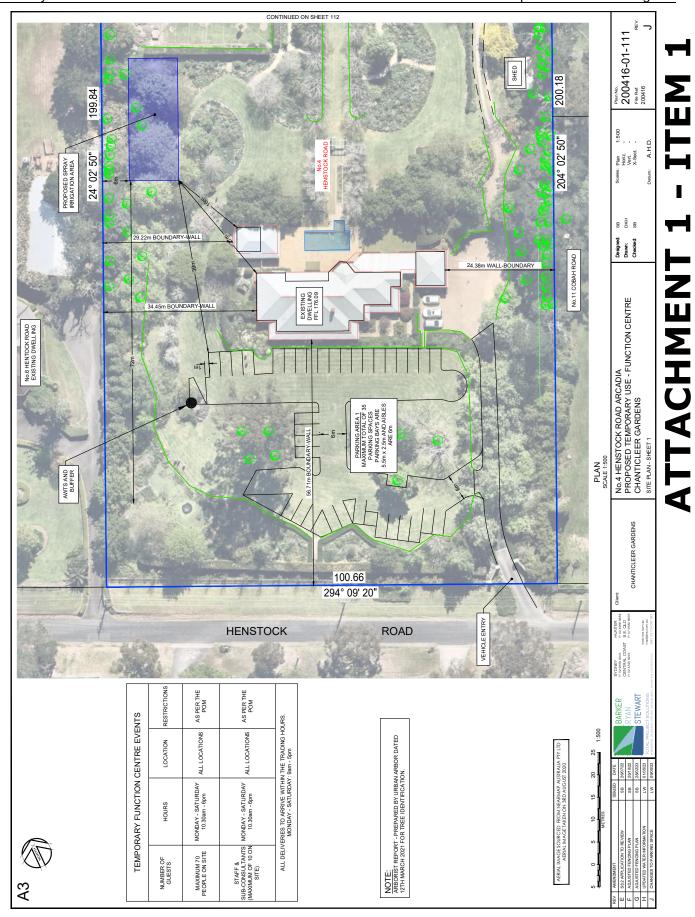
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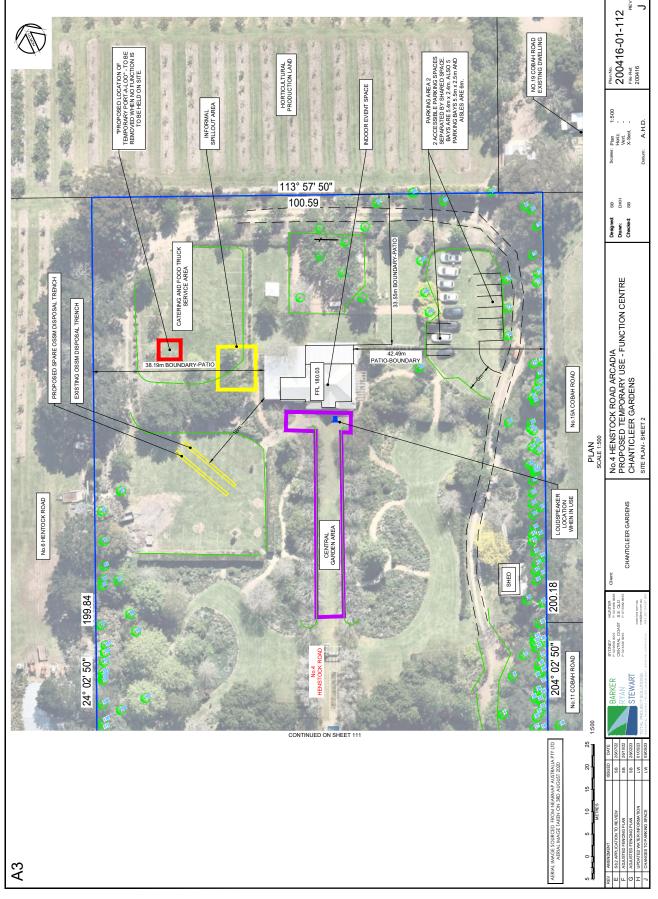


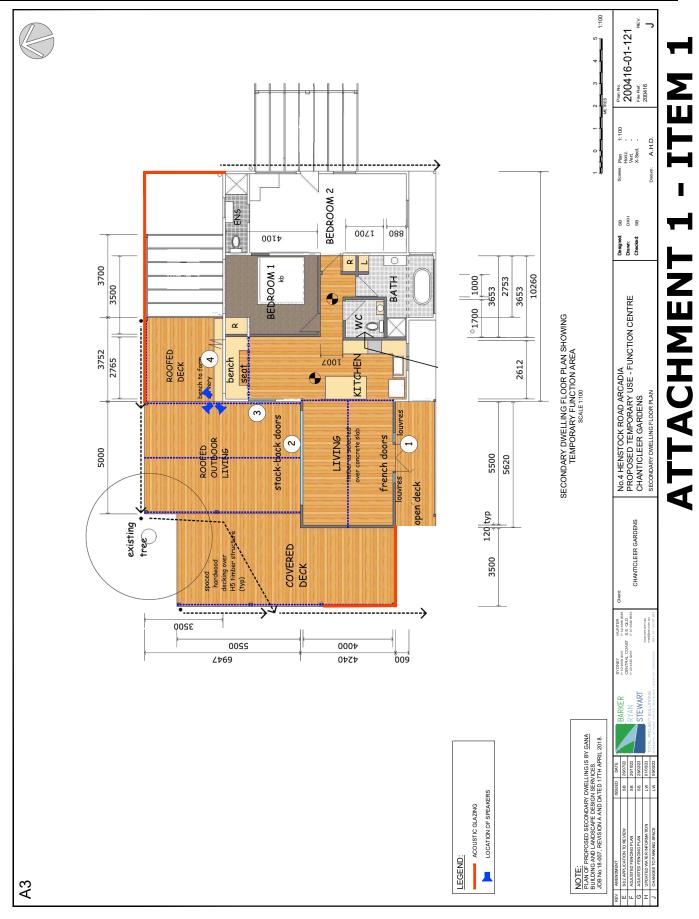




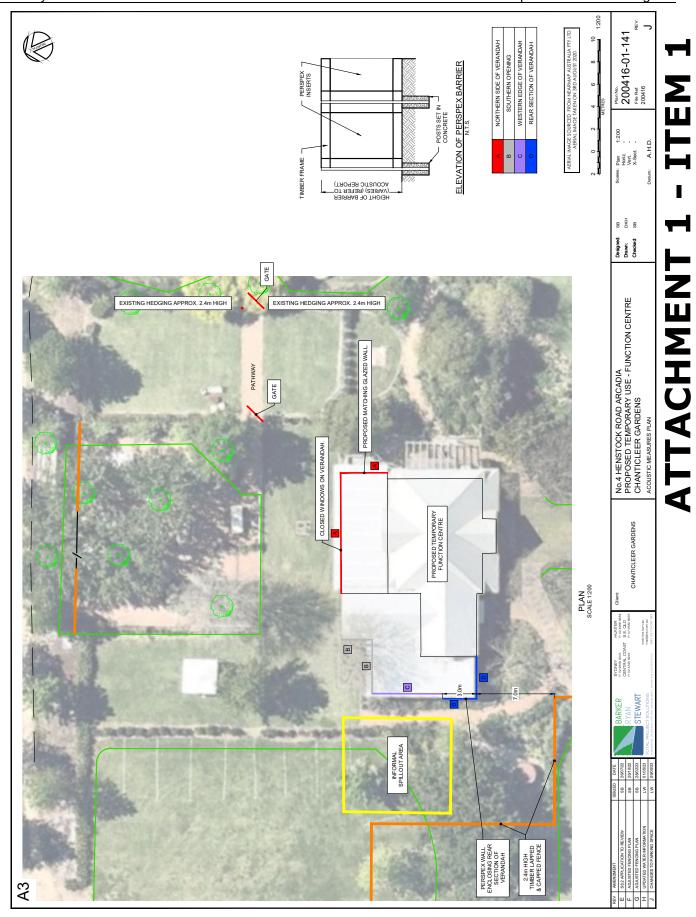


# ATTACHMENT 1 - ITEM 1











# REPORT



# PROPOSED TEMPORARY FUNCTION CENTRE -CHANTICLEER GARDENS

4 HENSTOCK ROAD, ARCADIA

DA NOISE IMPACT ASSESSMENT RWDI # 2104326 3 February 2023

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# DOCUMENT CONTROL

Version	Status	Date	Prepared By	Reviewed By
Α	Final	1 November 2022	Remi Larmandieu	John Wassermann
В	Final	3 February2023	Remi Larmandieu	John Wassermann

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# **GLOSSARY OF ACOUSTIC TERMS**

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

**Maximum Noise Level (L**<sub>Amax</sub>) – The maximum noise level over a sample period is the maximum level, measured on fast response, during the sample period.

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

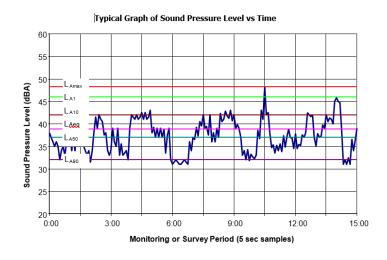
 $L_{A10}$  – The  $L_{A10}$  level is the noise level which is exceeded for 10% of the sample period. During the sample period, the noise level is below the  $L_{A10}$  level for 90% of the time. The  $L_{A10}$  is a common noise descriptor for environmental noise and road traffic noise.

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

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

**ABL** – The Assessment Background Level is the single figure background level representing each assessment period (daytime, evening and night time) for each day. It is determined by calculating the 10th percentile (lowest 10th percent) background level (L<sub>A90</sub>) for each period.

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



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# 1 INTRODUCTION

RWDI Australia Pty Ltd has been commissioned by Barker Ryan Stewart on behalf of Peter and Grada Shipway to update the assessment of noise emissions associated with the use of the property known as "Chanticleer" at 4 Henstock Road, Arcadia, a temporary function venue.

This report was prepared to support an application made to Hornsby Shire Council seeking approval for temporary use of the site to host events on the grounds and within the secondary residence on the property.

The reason for this updated report is to address Hornsby Shire Council request for a Revised Acoustic Assessment and Plan of Management in a letter dated 16 December 2022.

Assessment of operational noise from the proposed development has been documented in a previous Wilkinson Murray/RWDI DA report dated 10 August 2021, referenced 2104326 and named Proposed Temporary Function Centre Chanticleer Gardens 4 Henstock Road, Arcadia DA Noise Impact Assessment Ver A;

This report documents further acoustic modelling and assessment. The assumptions, modelling and results included have been developed collaboratively with Acoustic Directions Pty Ltd who act as peer reviewer for the project. Extensive redesign of operations has been required in order to satisfy the objectives of Clause 2.8 of Hornsby Local Environmental Plan 2013 in relation to "Temporary use of land".

This assessment makes reference to the following environmental planning instruments, policies and guidelines:

- Hornsby Local Environmental Plan 2013;
- Hornsby Development Control Plan 2013;
- Policy and Guidelines for Noise and Vibration Generating Development (2000);
- Noise Guide for Local Government (EPA 2013);
- Liquor & Gaming NSW (L&G NSW);
- NSW Noise Policy for Industry (EPA 2017);
- NSW Road Noise Policy (EPA 2011).

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# 2 PROJECT DESCRIPTION

#### 2.1 Site Location

Chanticleer is a 5-acre property located at 4 Henstock Road, Arcadia. Two dwellings are constructed on the site, the principal residence and a secondary residence (refer to Figure 2-1).

The secondary dwelling is Exempt Development in accordance with Part 6 Short term rental accommodation Housing SEPP 2021. The proposed secondary dwelling will only be used for these purposes when the temporary event/function use is not operating on site.

The site and the nearby surrounding receivers are located within a RU4 zoning for Primary Production Small Lots under Hornsby LEP 2013. Surrounding receivers are residential including several properties involved in primary production. The nearest residential receivers surrounding the site are as identified in Table 2-1 and shown in Figure 2-1.

**Table 2-1 Nearest Noise-Sensitive Receivers** 

Receiver ID	Address	Receiver Type				
R01	19 Cobah Road, Arcadia	Single Storey Residential Dwelling				
R02	17 Cobah Road, Arcadia	Single Storey Residential Dwelling				
R03	Single Storey Residential Dwelling					
R04	11 Cobah Road, Arcadia	Double Storey Residential Dwelling				
R05	1 Henstock Road, Arcadia	Single Storey Residential Dwelling				
R06	6 Henstock Road, Arcadia	Single Storey Residential Dwelling				
R07	9 Henstock Road, Arcadia	Single Storey Residential Dwelling				
R08	23 Cobah Road, Arcadia	Single Storey Residential Dwelling				

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**Figure 2-1 Existing Site and Surrounding Receivers** 



#### 2.2 Development Proposal

The proposed development involves the use of the property to host ceremonies and events for up to 70 patrons. Outdoor ceremonies and informal gatherings would be held in the central garden colonnade area. No food or drink would be served in this area. The secondary residence would accommodate 70 patrons in the covered veranda and an external western informal spill-out area. These are the only areas where the functions are proposed to operate. Food and drink will be served only within the verandah, not in the external area.

Figure 2-2 shows the proposed layout of the site.

The proposed hours of operation and occupancy are presented in Table 2-2.

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**Table 2-2 Function Centre Maximum Occupancy Rates** 

TE	MPORARY FUNCTION CENTR	E
Location	Maximum people	Hours (Monday – Saturday)
Function Area	Maximum 70	10.30am – 6pm
Staff & Sub-consultants	Approx. 10 – 15	10.30am – 6pm¹

Note 1: see note re deliveries to site below.



Figure 2-2 Proposed Temporary Use - Function Centre Layout

All functions will utilise sub-contractors for catering, food/drink service, waste management. Food and drink service will be undertaken from food trucks or the like, where preparation is undertaken off site. Catering and food trucks services would be located on the north-western side of the site (See Figure 2-2).

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Food waste is contained within the food truck or removed from the premises by the sub-contractor. Service of food and alcohol will be undertaken by the sub-contractors in accordance with Food & Alcohol service regulations.

At the central garden colonnade, music is proposed through one on-site speaker system (equipped with a microphone) and/or live unamplified music. The live unamplified music at the central garden colonnade must be limited to an acoustic duet (singer and accompanist) with no acoustic drums, wind or brass instruments.

Each event would involve a limited number of delivery vehicle movements. Delivery of port-a loos would involve nominally a small capacity (3t) truck with other deliveries, such as food, flowers etc by commercial capacity vans and will occur outside of the function time slot, but within normal business hours of 9am to 5pm, 7 days per week.

On site vehicular parking would be located on the open grassed area at the front of the property. It is understood that approval is sought to host 28 events per calendar year.

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# 3 AMBIENT NOISE ENVIRONMENT

### 3.1 Ambient Noise Survey

Ambient noise in the surrounding area is principally controlled by environmental influences, birdlife, insects, local traffic, typical residential community and agricultural sources.

Long-term unattended noise monitoring was conducted between Friday 2 October and Monday 12 October 2020 in the north-eastern area of the site (refer Figure 2-1). Instrumentation for the survey comprised an Acoustic Research Laboratories (ARL) Ngara Environmental Noise Logger (serial no. 878094) fitted with microphone windshield. Calibration of the logger was checked prior to and following measurements. Drift in calibration did not exceed ±0.5 dBA. All equipment carried appropriate and current NATA (or manufacturer) calibration certificates.

The logger continuously sampled noise levels over the entire survey period and calculated relevant statistical indices for each 15-minute interval. Data measured during periods of adverse weather, established through consultation with historical weather reports provided by the Bureau of Meteorology (BOM), has been excluded.

The ambient noise survey results are presented in graphical format in Appendix A. Periods of adverse meteorological conditions are identified on the charts by blue shading.

### 3.2 Ambient Noise Monitoring Results

A summary of the ambient noise monitoring results processed in accordance with NSW Noise Policy for Industry procedures is presented in Table 3-1.

**Table 3-1 Ambient Noise Survey Results** 

Logger Location	Period <sup>1</sup>	Weekday Nois RBL (L <sub>A90</sub> )	e Level (dBA)
NE corner 4 Henstock Road, Arcadia	Day 7.00am – 6.00pm	32	46

**Note 1**: The RBL noise level is representative of the average minimum background sound level (in the absence of the source under consideration), or simply the background level.

**Note 2**: The  $L_{\text{Aeq}}$  is essentially the average sound level. It is defined as the steady sound level that contains the same amount of acoustical energy as a given time-varying sound.

The typical spectral content of the measured Rating Background Level (RBL) is presented in Table 3-2.

Table 3-2 Octave Band Background Noise Level

Burning	JDA	Octave Band Centre Frequency (Hz)								
Descriptor	dBA	31.5	63	125	250	500	1K	2K	4K	8K
Measured Background Level L <sub>90</sub>	32	47	43	35	29	27	28	24	23	20

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# 4 CRITERIA FOR NOISE ASSESSMENT

### **4.1 Hornsby DCP 2013**

The Hornsby DCP 2013 contains objectives for controlling operational noise from development upon sensitive land uses. Council has a documented policy in regard to operational noise emissions entitled Policy and Guidelines for Noise and Vibration Generating Development (2000).

The DCP does not include quantitative criteria but requires noise assessment to be conducted in accordance with the NSW Industrial Noise Policy (superseded by the Noise Policy for Industry 2017) and any other EPA requirements.

The NSW Noise Policy for Industry (NPfI) provides a framework and process for deriving noise criteria for consents and licences that enable the EPA and others to regulate premises that are scheduled under the Protection of the Environment Operations Act 1997. Whilst specifically aimed at assessment and control of noise from industrial premises regulated by the EPA, the policy is also appropriate for use by other regulatory bodies such as Department of Planning & Environment (DPE) and local Councils when assessing development proposals.

Having been designed for large industrial and agricultural sources, the monitoring and assessment procedures may not be applicable to the smaller developments and noise sources regulated by local government. It is recognised however, that Councils may find the policy to be of assistance in noise assessment and land-use planning.

Operational noise is considered to limit intrusiveness (the level of the noise emission above the prevailing background sound level) and to maintain amenity by minimising the cumulative increase in the ambient noise level that may result from successive development.

For assessing intrusiveness, the background noise level (L<sub>A90</sub>) is measured, and the Rating Background Level (RBL) determined (refer Table 3-1). The intrusiveness of a noise source may generally be considered acceptable if the equivalent continuous noise level (L<sub>Aeq</sub>) of the source (measured over a 15-minute period) does not exceed the background noise level (RBL) by more than 5dBA (noting that a more stringent criteria has been assessed under Section 4.3 consistent with assessment undertaken pursuant the provisions of Clause 2.8 of the HLEP 2013).

The NPfl assumes minimum RBLs for intrusive noise assessment. During the daytime a minimum RBL of 35dBA is adopted. During the evening and night time periods a minimum RBL of 30dBA applies.

The intrusiveness criteria determined in accordance with NPfl procedures for assessment of operational noise at residential receivers are presented in Table 4-1.

Table 4-1 Intrusive Noise Criteria – L<sub>Aeq,15min</sub> dBA

Noise Receivers	Time of Day <sup>1</sup>	Intrusiveness Criteria L <sub>Aeq,15min</sub> dBA		
Residential	Day	40		
R01 - R06	Evening	37		

Note 1: Daytime 7.00am-6.00pm; Evening 6.00pm-10.00pm.

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Assessment of intrusiveness in accordance with the NPfI is also consistent with the procedure documented in the NSW Noise Guide for Local Government.

The amenity assessment is based on noise criteria specific to land use and associated activities. The amenity noise level aims to limit continuing increases in noise levels which may occur if the intrusiveness level alone is applied to successive development within an area.

The recommended amenity noise level represents the objective for total industrial noise at a receiver location. The project amenity noise level represents the objective for noise from a single industrial development at a receiver location.

To prevent increases in industrial noise due to the cumulative effect of several developments, the project amenity noise level for each new source of industrial noise is set at 5dBA below the recommended amenity nose level specific to the area in which the development is located.

An extract from the NSW NPfl that relates to the amenity noise levels for surrounding receivers is given Table 4-2.

Table 4-2 Amenity Noise Levels

Noise Amenity Area	Time of Day <sup>1</sup>	Recommended Amenity Noise Level L <sub>Aeq</sub> (dBA)
	Day	50
Residential – Rural	Evening	45
	Night	40

**Note 1**: Daytime 7.00am-6.00pm; Evening 6.00pm-10.00pm; Night 10.00pm-7.00am.

Section 7.2.1 of the Hornsby Shire Council Policy and Guideline for Noise and Vibration Generating Development, includes the following recommended control guidelines for amplified music:

Under the Protection of the Environment Operations Act, 1997 the use of amplified sound equipment is restricted between the hours of midnight and 8.00 am any day. Where the sound is audible in a neighbour's residence during this time and a warning to this effect is ignored, the person operating the sound equipment is guilty of an offence under the Act.

Between the hours of 8.00 am and midnight, the sound must be deemed offensive before a noise control notice can be served. To minimise the likelihood of disturbance, the LAeq noise level due to the operation of amplified sound equipment shall not exceed the background  $L_{A90}$  sound level when measured in the immediate vicinity of the external structure of any nearby residence.

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Under the current zoning, the proposed development may be permissible on a "temporary use of land" basis. The objective of HLEP 2013 Clause 2.8 is defined as:

"to provide for the temporary use of land if the use does not compromise future development of the land, or have detrimental economic, social, amenity or environmental effects on the land"

Subclause 3(b) requires:

"the temporary use will not adversely impact on any adjoining land or the amenity of the neighbourhood"

In legal proceedings involving similar "temporary use" applications before the NSW Land & Environment Court, the meaning of "not adversely impact" has not been clearly defined in relation to noise emissions. For the purposes of this assessment, a "zero impact" approach has been adopted. An assessment criterion of **Background (RBL) + 0dBA** was agreed upon as representative of the intent of Subclause 3(b) and ensures a more stringent limitation on the proposed use.

### 4.2 Liquor & Gaming NSW

Licensed premises are controlled by Liquor & Gaming NSW (L&GNSW). The L&GNSW Standard Conditions for noise from licensed premises were developed principally for the assessment of entertainment noise emissions. The standard condition generally applied for daytime operations is summarised below:

"The  $L_{10}$  noise emitted from the licensed premises shall not exceed the background noise level in any octave band frequency (31.5 Hz to 8 kHz inclusive) by more than 5 dBA between 7.00 am and midnight at the boundary at any affected residence"

The assessment of tonal characteristics, in accordance with the L&GNSW, is warranted for amplified music or entertainment noise emissions that may contain high levels of low or high frequency energy.

The applicable criterion is presented principally for informative purposes in Table 4-3.

Table 4-3 L&GNSW Noise Assessment Criteria for Daytime Operations

	Octave Band Centre Frequency (Hz)								
Descriptor	31.5	63	125	250	500	1K	2K	4K	8K
L <sub>10</sub>	52	48	40	34	32	33	29	28	25

# 4.3 Project Specific Assessment Criterion

Based on the objective of HLEP2013 Clause 2.8 subclause 3(b) and its objective of "zero impact" the project-specific assessment criterion adopted for function noise (crowd and music) is that noise emissions from the proposed development shall not exceed background noise level + 0dB in Octave bands (31.5 Hz to 8 kHz inclusive). For delivery vehicles and ute vehicles arriving and entering is background noise level + 0dB ( $L_{eq}$ ).

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The applicable criterion is presented in Table 4-4.

Table 4-4 Noise Assessment Criteria for Daytime Operations (11am to 6pm)

Descriptor	dBA		Octa	ve Band	l Centre	Freque	ncy -H	z (Line	ar)	
		31.5	63	125	250	500	1k	2k	4k	8k
Crowd and music	32L <sub>10</sub>	47	43	35	29	27	28	24	23	20
Vehicle Noise	32L <sub>eq</sub>									

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# 5 PROPOSED PLAN OF NOISE MANAGEMENT

This proposal has been developed from numerous noise modelling iterations. The following noise mitigation and management options have been identified to meet the "zero impact" approach.

The following noise control measures have been included:

- Number of patrons permitted on site at any one time is to be limited to 70;
- At the central garden colonnade music is proposed through one on-site speaker system and/or live unamplified music. The live unamplified music at the central garden colonnade must be limited to an acoustic duet (singer and accompanist) with no acoustic drums, wind or brass instruments. The central garden will have one loudspeaker set for a maximum level of 80 dBA at 1 m with directionality. Directionality of the loudspeaker is a critical element in achieving noise compliance, it is essential that the loudspeaker is suitably directional. The recommended type is a 300 mm two-way system with a 60° horizontal x 40° dispersion pattern for the high frequency component (See Appendix B).
- Only pre-recorded music played through the fixed loudspeakers in the Function Centre should be
  presented for background music and wedding dance. The function holder is to be advised that only the onsite sound amplification equipment is to be used. The amplification in the function area can only occur
  through the fixed speakers on site. A noise limiter is to be applied to the speakers and their maximum
  operational levels set. The maximum reverberant noise level in the function centre should be limited to
  77dBA. (See Figure 5-1 for the indicative speaker locations.)
- The western outdoor area adjacent the indoor event space is an informal spill out area and will only
  accommodate up to 30 guests due to limitations designed for the space including hedging, outdoor
  furniture, etc.
- Glazing to the south-western corner of the western elevation veranda (refer Figure 5-1).
- Glazing to northern and north-eastern elevation of veranda (refer Figure 5-1).
- Barriers as shown in Figure 5-22 and Figure 5-32Figure 5-2.
- Temporary Portable Toilets (or Portaloos) are to be installed when events and functions are being held. They should be installed at the locations shown in **Figure 5-22**, behind the 2.4m fence to minimise noise impacts to the receivers to the west. Signs should be installed near the Portable Toilets to remind patrons to keep noise to a minimum.
- Food trucks and associated cool room equipment should be installed in the designated area shown in **Figure 5-22**. Mechanical plant item should have a combined sound power level no greater than 85dBA, or a sound pressure level of 77dBA at 1m. Equipment that exceeds this standard is not to be employed on site. Additional temporary shielding (portable fencing or enclosure) is to be employed where it cannot be demonstrated that equipment achieves these standards.
- The toilets area and catering area should be managed so as not to be used by patrons as a spill out space.
- Signs should be installed at the entry to remind drivers to keep noise to a minimum (no honking, no revving of the engine).
- High-powered motor vehicles and motorbikes should be discouraged from being utilised for wedding
  party vehicles through the terms of the POM. As it is difficult to prevent guests from driving to the venue in
  these vehicles, the following measures to mitigate any potential impact are to be implemented;
  - $\circ \quad \text{All high-powered motor vehicles and motorbikes are to park within the front setback parking area.} \\$
  - Management to install signage to discourage idling of vehicles as is custom for function centres and commercial carparks nearby residential receptors.

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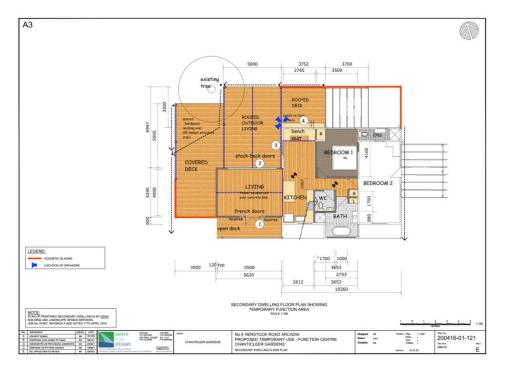


Figure 5-1 Proposed glazing to the Function Centre

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Figure 5-2 Proposed Noise Barriers (The barrier locations are indicative and required to be adjusted for site conditions)

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Figure 5-3 Proposed Noise Barriers (The barrier locations are indicative and required to be adjusted for site conditions.)

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# 6 NOISE MODELLING

Project-related noise emissions were modelled using the CadnaA noise prediction software. Factors that are addressed in the modelling include sound level emissions, screening from building and barriers, topography, receiver locations and ground and atmospheric absorption. Continuous cumulative operational noise levels have been predicted at the nearest receivers surrounding the site, using the ISO 9613-2 prediction algorithm.

The following operational noise scenarios have been considered:

- Scenario 1 70 guests in the central garden colonnade area for outdoor ceremony/gathering with one
  in two people speaking with a normal voice one exterior loudspeakers included with directional
  characteristics as documented in Appendix B. Mechanical plant items associated with the catering area
  / food trucks (no greater than 85 dBA sound power level or 77 dBA at 1m) have been assumed to be
  operating simultaneously in the designated area. Two people with one speaking with a normal voice
  were assumed to waiting near the portable toilets.
- Scenario 2 30 guests on the western outdoor area (informal spill out area) (refer Figure 5-1), with 40 guests within the undercover verandas of the secondary dwelling function space with background music. In both area, one in two people have been assumed to speak with a raised voice. Mechanical plant items associated with the catering area / food trucks (no greater than 85 dBA sound power level or 77 dBA at 1m) have been assumed to be operating simultaneously in the designated area. Two people with one speaking with a normal voice were assumed to waiting near the portable toilets.
- Scenario 3 70 guests (one in two speaking with a raised voice) within the undercover verandas of the
  secondary dwelling function space with background music. Mechanical plant items associated with the
  catering area / food trucks (no greater than 85 dBA sound power level or 77 dBA at 1m) have been
  assumed to be operating simultaneously in the designated area. Two people with one of them
  speaking with a normal voice were assumed to waiting near the portable toilets.
- Scenario 4 Delivery vehicles (two per 15-minute period); and
- Scenario 5 Vehicular movements associated with the onsite carpark. As detailed in the noise management plan in Section 5, high powered vehicles and motorcycles have not been included in this assessment. as it is assumed that these will be used infrequently by guests and directed to the parking area adjacent to Henstock Road. These vehicles will be prevented from being incorporated as wedding party vehicles. Guests visiting the site with these vehicles will be directed to the parking area adjacent to the road and discouraged from idling. This will occur as part of the on site traffic management identified within the POM. It is unnecessary to include these vehicles in Scenario 5 as they are unlikely to generate noise levels above what would typically be experienced by surrounding primary production equipment (tractors and the like) or road noise were these vehicles travelling along Henstock Road which cannot be limited.

The noise emissions used for the noise modelling is presented in Table 6-1.

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Table 6-1 Noise Emissions

Naisa Causa	dBA		Oct	tave B	and Ce	entre F	reque	ncy -H	z (Line	ar)
Noise Source		31.5	63	125	250	500	1k	2k	4k	8k
Single talker Raised Voice sound power level L <sub>10</sub>	77 L <sub>10</sub>	54.2	70.2	59.2	67.2	72.2	73.2	68.2	62.2	56.2
Single talker Normal Voice sound power level L <sub>10</sub>	68 L <sub>10</sub>	46.0	52.0	50.0	61.0	64.0	65.0	60.0	54.0	48.0
2 vehicles per 15-min period assumed. Low speed movement Lw 74dBA per vehicle	74 L <sub>10</sub>	-	80	76	66	69	72	63	59	56
Carpark Driveway Lw based on 31 vehicles/15- min moving line source					58dB	A/m L <sub>ec</sub>	I			
Carpark Lw based on 31 vehicles/15- min area source					81 (	dBA L <sub>eq</sub>				

Table 6-2 Scenario 1 – Predicted Octave Band Impact Results (1 in 2 people speaking with normal voice)

			Oc	L <sub>A10</sub>	a velica							
ID	Receiver	32	63	125	250	500	1k	2k	4k	8k	dBA	Complies?
R01	19 Cobah Rd	-	-	1	8	17	21	16	6	-	23	Yes
R02	17 Cobah Rd	-	-	-	1	11	15	10	0	-	18	Yes
R03	15 Cobah Rd	-	-	1	6	15	19	15	6	-	22	Yes
R04	11 Cobah Rd	-	-	9	14	23	26	21	14	1	29	Yes
R05	1 Henstock Rd	-	-	4	10	19	18	11	3	-	22	Yes
R06	6 Henstock Rd	-	-	10	13	22	27	23	17	4	30	Yes
R07	9 Henstock Rd	-	-	0	3	13	17	12	2	-	19	Yes
R08	23 Cobah Rd	-	-	8	13	22	25	21	13	0	28	Yes
	Criterion	47	43	35	29	27	28	24	23	20	32	

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Table 6-3 Scenario 2 – Predicted Octave Band Impact Results (1 in 2 people speaking with raised voice)

				Oct	ave Band	Centre Fi	equency	(Hz) – L <sub>A10</sub>	)		L <sub>A10</sub>	
ID	Receiver	32	63	125	250	500	1k	2k	4k	8k	dBA	Complies?
R01	19 Cobah Rd	13	13	12	13	17	19	18	14	7	25	Yes
R02	17 Cobah Rd	3	3	3	5	7	7	5	0	-	14	Yes
R03	15 Cobah Rd	4	5	6	7	11	15	15	12	3	20	Yes
R04	11 Cobah Rd	9	10	12	11	17	21	21	19	12	27	Yes
R05	1 Henstock Rd	5	5	6	7	10	10	8	3	-	17	Yes
R06	6 Henstock Rd	11	12	14	12	19	24	23	20	12	28	Yes
R07	9 Henstock Rd	8	9	10	8	15	18	17	13	3	23	Yes
R08	23 Cobah Rd	13	14	15	14	21	25	24	21	13	30	Yes
C	Criterion	47	43	35	29	27	28	24	23	20	32	

Table 6-4 Scenario 3 – Predicted Octave Band Impact Results (1 in 2 people speaking with raised voice)

	D	Octave Band Centre Frequency (Hz) – L <sub>A10</sub>										Camanii ana
ID	Receiver	32	63	125	250	500	1k	2k	4k	8k	dBA	Complies?
R01	19 Cobah Rd	-	4	3	11	20	23	16	7	-	25	Yes
R02	17 Cobah Rd	-	-	-	2	10	11	3	-	-	14	Yes
R03	15 Cobah Rd	-	-	-	3	10	11	4	-	-	15	Yes
R04	11 Cobah Rd	-	-	-	7	16	21	16	8	-	23	Yes
R05	1 Henstock Rd	-	-	-	4	13	14	7	-	-	18	Yes
R06	6 Henstock Rd	-	2	3	9	21	26	21	12	-	29	Yes
R07	9 Henstock Rd	-	2	3	6	20	27	22	14	-	29	Yes
R08	23 Cobah Rd	-	4	5	12	24	28	23	14	0	31	Yes

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	Octave Band Centre Frequency (Hz) – L <sub>A10</sub>										L <sub>A10</sub>	
ID	Receiver	32	63	125	250	500	1k	2k	4k	8k	dBA	Complies?
	Criterion	47	43	35	29	27	28	24	23	20	32	

Table 6-5 Scenario 4 - Predicted L<sub>Aeq</sub> Results

ID	Receiver	$L_{Aeq}$	Complies?
R01	19 Cobah Rd	31	Yes
R02	17 Cobah Rd	16	Yes
R03	15 Cobah Rd	22	Yes
R04	11 Cobah Rd	31	Yes
R05	1 Henstock Rd	28	Yes
R06	6 Henstock Rd	24	Yes
R07	9 Henstock Rd	22	Yes
R08	23 Cobah Rd	23	Yes

Table 6-6 Scenario 5 - Predicted L<sub>Aeq</sub> Results

ID	Receiver	L <sub>Aeq</sub>	Complies?
R01	19 Cobah Rd	16	Yes
R02	17 Cobah Rd	20	Yes
R03	15 Cobah Rd	23	Yes
R04	11 Cobah Rd	30	Yes
R05	1 Henstock Rd	29	Yes
R06	6 Henstock Rd	30	Yes
R07	9 Henstock Rd	19	Yes
R08	23 Cobah Rd	21	Yes

With the inclusion of the extensive noise control measures as documented, the project specific assessment criterion of 32dBA is not exceeded during any of the events or operational scenarios considered. Based upon the modelled results, noise emissions to surrounding residential receivers during typical operations of the function centre achieve a "zero impact" target consistent with the objectives of HLEP Clause 2.8 subclause 3(b).

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# 7 ROAD TRAFFIC NOISE ASSESSMENT

#### 7.1 Noise Criteria

Assessment of noise generated by additional road traffic is assessed in accordance with the guidelines recommended in the NSW Road Noise Policy (RNP).

The applicable RNP are presented in Table 7-1.

Table 7-1 Road Traffic Noise Criteria

Don't	Town of Post on (	Assessment Criteria – dB(A)					
Road Category	Type of Project / Land Use	Day (7am–10pm)	Night (7am–10pm)				
Local roads	Existing residences affected by additional traffic on existing local roads generated by land use development	L <sub>Aeq,1hr</sub> 55 (external)	L <sub>Aeq,1hr</sub> 50 (external)				

Note: These criteria are for assessment against facade-corrected noise levels when measured at 1m from the building

#### 7.2 Road Traffic Data

A traffic impact assessment report (ref: CC150093) was prepared by Barker Ryan Stewart. The report states that high percentage of carpooling will occur and that the average vehicle occupancy is considered to be 3.5 persons per vehicle. On this basis, approximately 20 vehicles could be expected for an event attended by 70 guests.

#### 7.3 Road Traffic Noise Assessment

The Calculation of Road Traffic Noise (CoRTN) algorithm was used to predict existing road traffic noise levels and the increase in levels due to additional traffic movements generated by the proposed development.

The morning period experiences a greater traffic volume and so predictions were based on this period. Road traffic noise levels were predicted at the residential property at 3 Cobah Road, being the potentially worst-affected receiver.

The predicted existing daytime traffic noise level at this receiver location is  $L_{Aeq,1hr}$  42dBA. The predicted  $L_{Aeq,1hr}$  road traffic noise level, including the traffic generated during an event with 70 people is 45dBA. The cumulative road traffic noise level including the additional traffic generated by the development achieves the recommended daytime guideline of 55dBA.

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# 8 CONCLUSIONS AND RECOMMENDATIONS

An assessment has been undertaken to determine the potential impact of noise generated by the temporary use of the property known as "Chanticleer" located at 4 Henstock Road, Arcadia as a function centre.

Hornsby LEP 2013, Clause 2.8 subclause 3(b) requires:

"the temporary **use** will not adversely impact on any adjoining land or the amenity of the neighbourhood".

A "zero impact" approach of Background RBL + 0dB (31.5 Hz to 8 kHz inclusive) has been adopted consistent with the intent of the HLEP 2013 requirement in relation to temporary use of land.

Assumed worst-case operational scenarios were modelled, including recommended mitigation measures. The predicted results have been assessed against the project specific "zero impact" target and applicable guidelines and regulatory requirements. Provided the recommended mitigation measures are adopted and the noise management recommendations implemented, operational noise, including levels generated by additional road traffic, will achieve the Hornsby LEP 2013 requirement relating to temporary use of land, being no adverse impact.

All noise mitigation and management measures identified in this report should be included in any future Plan Of Management (POM) for the site.

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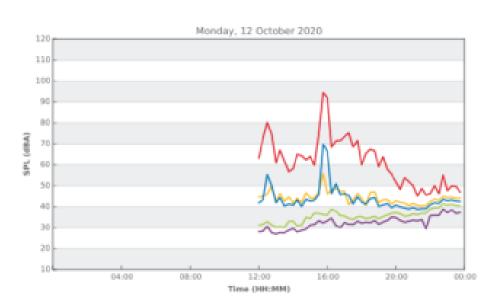
## APPENDIX A - NOISE MEASUREMENT RESULTS

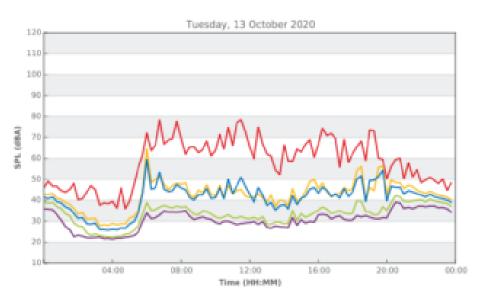
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#### 4 Henstock Road Arcadia

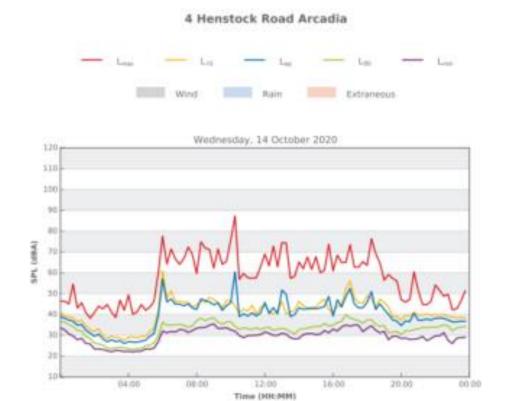


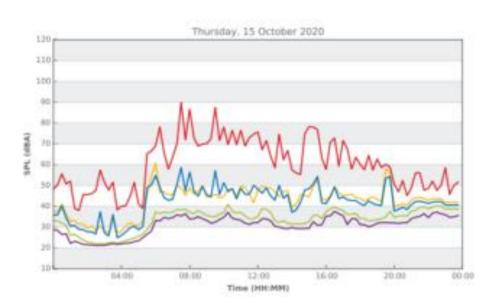




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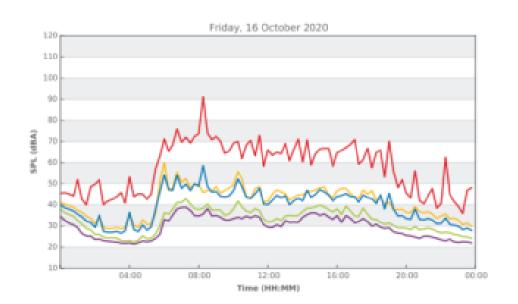


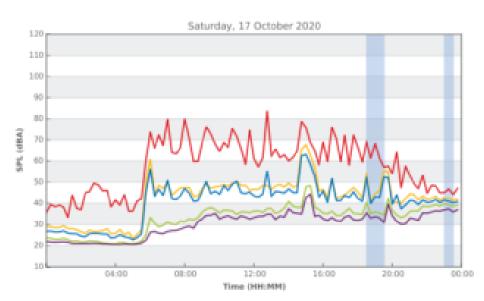
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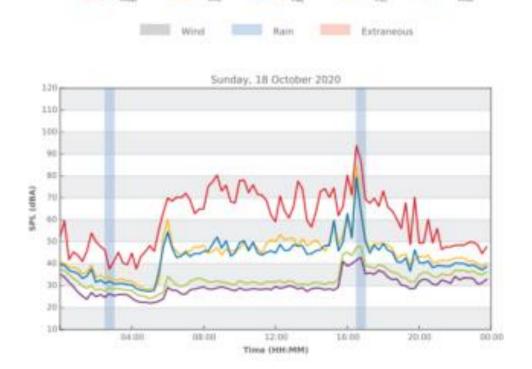


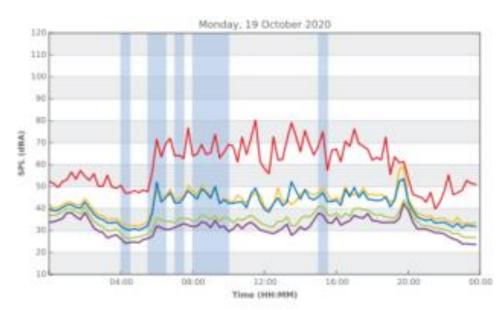


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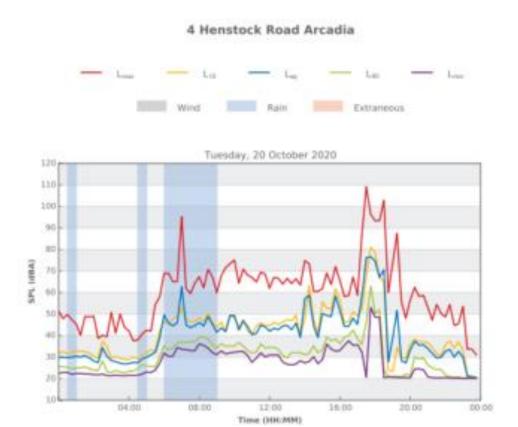
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# APPENDIX B – DIRECTIONAL CHARACTERISTICS OF EXTERIOR LOUDSPEAKERS

	Loudspeaker: Powered Type RCF ART312A						
Angle	off axis level relative to on axis						
	125	250	500	1000	2000	4000	8000
0	0	0	0	0	0	0	0
10	0	0	0	0	-1	0	-1
20	0	-1	-1	-1	-2	-1.5	-2
30	0	-1	-2	-2	-4	-4	-4
40	-1	-1.5	-2	-3	-5.5	-6	-6
50	-1.5	-2.5	-3.5	-4	-8	-9	-9
60	-2	-3	-5	-6	-11	-13	-13
70	-2.5	-4	-6.5	-8	-13.5	-14.5	-14.5
80	-4.5	-5	-7.5	-10	-15.5	-16.5	-16.5
90	-4	-6	-9	-12	-18	-18	-18
100	-4.5	-7.5	-10	-13	-20	-20	-20
110	-5	-9.5	-11	-14	-22	-22	-22
120	-5.5	-11	-12	-15	-24	-24	-24
130	-6	-11	-13	-15.5	-24.5	-24.5	-24.5
140	-6	-11	-14	-16.5	-25.5	-25.5	-25.5
150	-6.5	-11	-15	-17	-26	-26	-26
160	-7	-11	-14	-17	-26.5	-26.5	-26.5
170	-7.5	-11	-13	-17	-27.5	-27.5	-27.5
180	-8	-11	-12	-17	-28	-28	-28
DI	1.5	2.8	3.7	4	8	10	12







Plan of Management
Use of the Site as Temporary Function Centre
4 Henstock Rd, Arcadia

1 May 2023

PLANNING SURVEYING CERTIFICATION

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**ENGINEERING** 



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0523	Updated Final	01/05/2023	Council RFI response

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#### **Appendices**

Appendix A - Site Management Plan

Appendix B - Acoustic Measures Summary as prepared by RWDI and Acoustic Directions

Appendix C - Waste Management Plan

Appendix D - Traffic Management Plan

Appendix E – Emergency Evacuation Plan

#### 1 Introduction

Barker Ryan Stewart have been engaged by Chanticleer Gardens to prepare a Plan of Management (POM) for the operation of part of the site for use as a temporary function centre at 4 Henstock Rd, Arcadia.

This POM outlines the on-going management principles for the proposed use.

Where this plan conflicts with the requirements of Work Health and Safety (WHS) Policy then safety and environmental obligations shall override this POM.

The POM includes a description of the project, identifies the purpose, outlines the process and addresses management principles relating to the potential impacts including noise, waste and traffic management.

This POM is drafted for consideration by Council and should be adopted or amended as a condition of consent, where granted.

#### 2 Project Overview

#### 2.1 Existing Development

The site supports an existing dwelling house, detached cabana and swimming pool, and a secondary dwelling as shown in Figure 1 below. In addition, the site has been heavily planted with formal gardens and large canopy tree species to create formal garden rooms.



Figure 1: Aerial image of site (Nearmap; 2022)

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Direct street access is available to the site from Henstock Road and the built elements are serviced by an existing driveway that is located adjacent to the eastern and northern boundaries.

#### 2.2 Proposed Development

It is proposed to use the site for a temporary function centre. Figure 2 identifies the proposed operation of the uses on site. Refer to full plan for details in Appendix A.

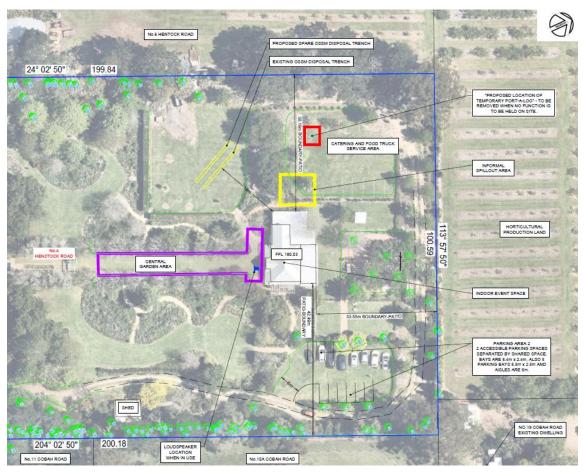


Figure 2: Site Plan indicating proposed use (Source: BRS, 2023)

The development is categorised as a temporary function centre. The operational particulars are identified below.

#### 2.2.1 Temporary Establishment of use - Function Centre

The subject application proposes temporary use of the site for a function centre in accordance with the provisions of Clause 2.8 Hornsby Local Environmental Plan (LEP) 2013. Functions will be limited to a maximum period of 28 days (whether or not consecutive days) in any period of 12 months, excluding time required for set up and pack down as established by NSWLEC caselaw<sup>1</sup>.

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<sup>1</sup> NSWLEC Caselaw Marshall Rural v Hawkesbury 40644 of 2015; and Lomman v Windbelt 2017/00076964.

The function spaces are categorised by location as they require different restrictions on their use. These are identified in Figure 2, and as follows;

- 1. Indoor event space: The internal living areas and verandah of the secondary dwelling are proposed to be used for events/functions.
- Central garden area, located between the existing dwelling and secondary dwelling as shown in Figure 2.
- 3. Informal "spill out" area to the western outdoor room.

Occupancy and trading hours of these spaces is proposed as shown in Table 1.

**Table 1: Function Centre Maximum Occupancy Rates** 

TEMPORARY FUNCTION CENTRE					
Location	Maximum people	Hours (Monday – Saturday)	Restrictions		
Function Area	Maximum 70	10.30am – 6pm	Refer RWDI Acoustic Report dated 030223		
Staff & Sub-consultants	Approx 10 – 15	10.30am – 6pm	Refer RWDI Acoustic Report dated 030223		
Deliveries		9am – 5pm	Refer RWDI Acoustic Report dated 030223		

This Plan of Management (POM) forms part of the contract for use of the premises. The POM addresses the management of an event. This will include parking, noise, music, service of alcohol, unruly behaviour and complaints management.

There are two staff involved in the operation of the site, these are the owners/proponents of the temporary function centre. All functions will utilise sub-contractors for catering, food/drink service, waste management. Food and drink service will be undertaken from food trucks or the like, where preparation is undertaken off site. Food waste is contained within the food truck or removed from the premises by the sub-contractor. Service of food and alcohol will be undertaken by the sub-contractors in accordance with Food & Alcohol service regulations.

All lighting on site is to be used in accordance with Australian Standard 4282-1997 'Control of the obtrusive effects of outdoor lighting'.

Music is proposed to be used through the on site speaker system and live music as limited in the Acoustic Assessment. The restrictions on this use are detailed in Appendix B and will be regulated through the POM subject to any hire agreement for the function centre. Figure 4 identifies the proposed acoustic measures to be utilised in combination with the function centre.

Portable toilets will be utilised for all functions and will be temporarily placed on site for the duration of the function. The transport and cleaning of these portable toilets is addressed herein. Only 1 double portable toilet is required to be provided on site. An example of the portable toilet is identified in Figure 3. The toilet is delivered and collected within a reasonable period (1 - 2 days) by the contractor, as coordinated by the proponent, and must occur during the trading hours as per Table 1. These will also be used for catering and other on site contractors during an event. The toilets within the secondary dwelling will not be available for guest use and will be locked off during an event by the proponent/owners.



Figure 3: Example of luxury portable powder room (Source: Portable Powder Room; 2021)

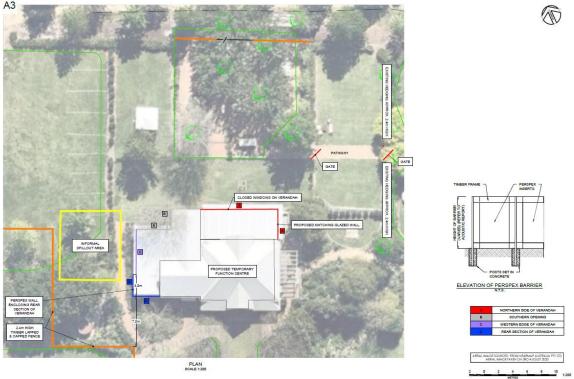


Figure 4: Acoustic Measures Plan (Sheet 141) of proposed use (Source: BRS 2023)

#### 3 Purpose of the Plan of Management

#### 3.1 Aim of Plan of Management

This POM covers the temporary use of the site for a function centre. The aim of the POM is to;

- Allow for the efficient management of events and functions on site in accordance with the business plan for the Proponents;
- To promote a positive guest experience through a well managed site that will ultimately generate a reputation for Chanticleer Gardens as a destination for tourists;
- To ensure no adverse impact results as a consequence of the temporary use; and
- To provide accountability for the Proponents and Function Holders for the safe and responsible management of guests on site.

#### 4 Management Principles

The following tables outline management measures to be adopted by proponents to ensure a safe working environment for function holders, external providers and guests is provided.

Ultimate responsibility for the site remains with the proponents (owners) of the site, however the POM forms one of the terms for the function holders contract for agreement to hire.

#### 4.1 Proponents and Sub-contractor/external service provider operational details

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
Staff	Proponents  The proponent is the owner of the site.  Two (2) proponents/owners will be onsite during operation.  Sub-contractors / External Service Providers  All sub-contractors and external service providers are to be scheduled for operation on site by the proponents.	Ongoing	Proponents
Provide sufficient amenities for both male and female service providers	<ul> <li>Staff Amenities – External Service Providers</li> <li>Portable toilet amenities for sub-contractors and external service providers are to be installed on site.</li> <li>Signage provided within the Secondary Dwelling to direct staff and guests to external portable toilets.</li> </ul>	Prior to and During Events	Proponents
Staff Parking	Staff parking Parking areas for sub-contractors/external service providers will be located as identified in the Site Plan at Figure 2 and Appendix A.	Prior to and During Events	Proponents
Ongoing supervision	Measurement and Monitoring     Monitoring of the sub-contractors/external service providers to ensure their compliance with the POM terms.	Ongoing	Proponents

#### 4.2 Occupation of Site – Maximum visitors

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
Number of people on site	<ul> <li>Temporary Function Centre</li> <li>Maximum of 70 guests on site.</li> <li>Estimated 10 – 15 sub-contractors on site.</li> </ul>	During operation.	Proponents /Function Holder
Sub-contractors & Service Operators	Estimated 10 – 15 sub-contractors on site.	On-going Outside event only during hours of operation.	Proponents /Function Holder

#### 4.3 Hours of Operation

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
Hours of operation	<ul> <li>Temporary Function Centre         Monday – Saturday: 10.30am – 6pm.</li> <li>Limited to a maximum of 28 occurrences per calendar year. An 'occurrence' does not include time for function set up and pack down.</li> <li>Registration of functions to be kept for each calendar year and supplied to Council on request.</li> <li>Excludes high risk activities such as teenage/young adult birthday parties.</li> <li>Function holder is to be made familiar with the restriction to number of guests and operating hours.</li> </ul>	Ongoing	Proponents

#### 4.4 Food Handling and Responsible Service of Alcohol

No kitchen facilities are proposed under the temporary use for functions booked for the use of the site.

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
Food Handling	Proponents  Food preparation is conducted off site in advance by the catering company;  No storage of food is permitted on site;  All food requirements are organised by the function holder.	Ongoing	Proponents/ Sub-contractors
Food Handling	<ul> <li>Sub-contractors / External Service Providers</li> <li>Food is delivered, served and handled in accordance with Guidelines for Mobile Food Vending Vehicles and the NSW Food Act 2003, Food Regulation 2015 and Food Standards Code;</li> <li>Food trucks are to be parked in the nominated parking area as shown on the plans; and</li> <li>Residue of food wastage will be disposed of by the food caterer and no waste is to be left on site.</li> </ul>	Ongoing	Proponents/ Sub-contractors
Responsible Service of Alcohol	<ul> <li>All caterers must comply with the following, among any other relevant controls:</li> <li>Food Act 2003 and Food Regulation 2004</li> <li>Food Standards Code (Food Safety Standards)</li> <li>Responsible Service of Alcohol Guidelines NSW Liquor &amp; Gaming.</li> <li>All sub-contractors, as required, are to carry Responsible Service of Alcohol (RSA)</li> </ul>	Ongoing	Proponents to inspect RSA card at time of booking to form terms of agreement, and at operation of the event.

#### 4 Henstock Rd, Arcadia

#### Plan of Management

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
	<ul> <li>competency card. The proponent is to site this as part of the terms for hire, and presentation of same on site at the time of the function.</li> <li>Function holder to engage subcontractors and make them aware of the obligations of the POM.</li> </ul>		Sub-contractors to present RSA card at time of booking.

#### 4.5 Transport and Parking

Adequate off-street parking is available for approximately 42 vehicles, in locations identified on the Site Plan (see Appendix A). Private car will be the predominant mode of transport for each event given the isolated location of the site and the 'destination' marketing of this use.

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
On site parking	<ul> <li>Proponents</li> <li>Carpooling is to be encouraged through marketing of the site.</li> <li>Ensure the measures identified in the Traffic Management Plan (Appendix D) are employed for temporary functions.</li> <li>Proponents to undertake traffic management controls during the operation of a function.</li> <li>Proponent to ensure adequate signage is displayed to reduce speed on site and minimise noise when entering and exiting vehicles.</li> <li>Function holders will be provided with contact details for the local alternative transport (bus, Uber etc).</li> <li>Function holders to be advised of the parking areas to be used for guests and subcontractors in advance of the event.</li> <li>Function holders to be advised that the use of high powered motor vehicles and motorbikes or the like should not be utilised in any wedding party vehicles.</li> </ul>	Ongoing	Proponents
On site parking	Sub-contractors / External Service Providers All sub-contractors and external service providers are to be scheduled for operation on site by the proponents within the operating hours. All sub-contractors to park in the nominated parking areas. Where equipment associated with cool rooms and catering trucks exceeds a combined noise level of 85dBA the proponent is to install temporary shielding (portable screen or the like).	Ongoing	Proponents

#### 4.6 Waste Management & Cleaning/Maintenance of the Site

There is a minimal-impact policy in regard to waste. To encourage efficient use of waste facilities on site the following measures are to be adopted;

- Display signs that clearly identify garbage and recycling bins using colour coding according to AS4123.7-2006 Mobile Waste Containers – colours, markings and designation requirements provide directional signage and other techniques, such as lines on the ground, to show the location of, and routes to, waste storage facilities.
- All garbage and recycling generated needs to be stored in appropriate bins or containers with permanent well-fitting lids.

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
Waste management	<ul> <li>Temporary Function Centre</li> <li>The Function Holder/Proponent is to advise all external sub-contractors to include waste and recycling bins for waste disposal during use of the site for a temporary function. Waste materials will then be removed from the site by the contractors and disposed of.</li> <li>Adequate and convenient temporary storage for waste and recycling containers to be provided on site for each function (as identified by the proponent).</li> <li>No grease trap is provided on site therefore food preparation will not occur on-site. The kitchen in the existing secondary dwelling will be made inaccessible during events.</li> <li>All waste generated as a result of temporary functions, including general waste, packaging, recyclable materials, will be removed from the site by external sub-contractors (including toilet wastewater/port-a-loo) as employed by function holders.</li> <li>All function holders are to ensure that the site is to be left in a clean and tidy manner and this will be a term of the booking that it is left in this manner.</li> </ul>	Ongoing	Proponent/ Function Holder

#### 4.7 Noise Management

All Noise Mitigation Measures and controls contained within Appendix B are to be adhered to.

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
Noise management	Temporary Function Centre	Ongoing	Proponent
	<ul> <li>The proponent is to make the function holder aware of the following noise controls that apply to the site;</li> </ul>		
	<ul> <li>There are two areas (see Figure 2) in which amplified sound music could be presented:</li> </ul>		

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
	i. Function Centre		
	ii. Central Garden area		
	The amplification in these areas can only occur through the fixed speakers on site. A noise limiter is to be applied to the speakers and their maximum operational levels set (as discussed in Appendix B). The central garden will have one loudspeaker set for a maximum level of 80 dBA at 1 m with directionality.		
	Presentation of music or other amplified sound should not take place in any other area.		
	No DJ's are permitted. Musical entertainment must be limited to an acoustic duet (singer and accompanist) with no acoustic drums, wind or brass instruments.		
	Live music should not include any percussive accompaniment, either from a natural acoustic instrument or an electronic drum machine or rhythm generator.		
	existing The property of the p		
	3500 120 typ 5500 2612 2753 2753 2653 10260 3853 10260 3853 10260 3850 3850 3850 3850 3850 3850 3850 385		
	Figure 5: Function Centre Floor Plan (Sheet 121) of proposed use (Source: BRS 2023)		
	The recommended loudspeaker type is as per Appendix B.		
	The secondary loudspeaker should be deactivated if there are less than 55 guests.		
	Only pre-recorded music played through the fixed loudspeakers in the Events Centre should be presented for dancing. The function holder is to be advised that only the on site sound amplification equipment is to be used.  After the maximum sound levels that this		
	sound system can produce have been set		

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
	during the commissioning process, access to the settings of the digital signal processor should not be allowed by unauthorised people.  Display signs asking guests to be quiet when leaving, including car park areas. Signage should discourage idling of vehicles. All high powered vehicles are to park within the Carpark 1 area located adjacent to the street.  As part of the function holder agreement to be signed stating "The bond will be forfeited if any reasonable complaint is received by Council, the police, or the NSW Office of Liquor, Gaming and Racing".  The function holder is to be advised of the rural setting, the rural background noise levels, and the need to respect the amenity of neighbours.  All persons are to have left the premises and the surrounding area by 6.00pm; and  Deliveries are to occur during the operating hours only.  No mechanical equipment utilised with exception of sub-contractors on site and located in nominated position.		

#### 4.8 Minimum Standards for Portable Toilets

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
Portable toilets	<ul> <li>Proponents</li> <li>To advise service provider of location for portable toilets (as identified on the site plan see Figure 2).</li> <li>Calculation of the minimum required toilets is to be in accordance with the "Code Of Practice: Guidelines For The Provision Of Portable Toilets On Construction Sites And At Events Where Connection To A Sewer Is Not A Practical Solution". Wedding events or functions where female guests have a greater proportion these numbers may be increased.</li> <li>Portable toilets are to be provided during all functions on site.</li> <li>No access is to be provided to the toilets within the secondary dwelling during functions and these are to be secured during a function.</li> <li>Signage provided directing guests to the portable toilet location both external and at the door to the internal WC. "Not in use"</li> </ul>	Ongoing	Proponents / Sub-contractors.

#### 4 Henstock Rd, Arcadia

#### Plan of Management

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
	signage to be placed on the internal WC during an event.		
Portable toilets	<ul> <li>Sub-contractors / External Service Providers</li> <li>Portable toilets are to be delivered and positioned in accordance with Hire and Rental Industry Association Ltd Portable Toilets Division "Code of Practice: Guidelines For The Provision Of Portable Toilets On Construction Sites And At Events Where Connection To A Sewer Is Not A Practical Solution", or as amended.</li> <li>Portable toilets located on site as nominated.</li> <li>All servicing, cleaning and maintenance is to be undertaken off site and in accordance with the above code of practice.</li> </ul>	Ongoing	Proponents / Sub- contractors.

#### 4.9 Visitor Safety, Site Rules & Emergency Evacuation

#### Guest Safety & Site Rules

- All function holders to agree to the terms of the POM as part of contract.
- Functions to exclude Teenage birthday parties or 'combined' teenage and older birthday parties, 21st birthday parties or any function organised over the internet or via SMS text messaging.
- Where security is required (at the discretion of the proponent) and is not arranged by the function holder the proponent will arrange security to be present at the function in accordance with this plan. This will be at the expense of the function holder.
- In the event of an emergency, guests, visitors and staff are to gather in the car parking area adjacent to Henstock Road. The function holder is to be made familiar with the emergency evacuation location point and safe path of travel (refer Appendix E) by the Proponent.
- Signage identifying direction to emergency evacuation point and at the emergency evacuation point is to be provided on site.

#### Fire Safety & Emergency Evacuation

- Fire safety equipment (fire extinguisher/s and fire blanket/s) are to be provided. Fire safety equipment is to be located for ease of access in the event of a fire occurring.
- Fire safety equipment is to be tested annually and have current tagging (refer to Australian Standard 2444).

#### 4.10 Complaint Management and Neighbour Notification

The following rules will form part of any Temporary Function Hire Agreement with the proponent and will be the subject of any booking terms and agreement.

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POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
Complaints Management	Proponents Complaints are to be managed in a sympathetic and respectful manner. Neighbours will be advised of the event and an all hours contact phone numbers for the proponent for complaints to be provided. A record detail of all complaints taken by the proponent will include:  The name of the person taking the complaint. The date, time and nature of the complaint. The name, address and contact details of the complainant, and The details about how the complaint was handled and what action was taken.  if no action was taken, the reasons why no action was taken.  A complaints register is to be completed for each 12 month period for the operation of the temporary function centre and made	Ongoing	Proponents
Responsibilities of Function Holder	<ul> <li>available to Council upon request.</li> <li>Function Holder</li> <li>Swimming in the swimming pool is strictly prohibited. Parents are responsible to ensure children are supervised during their visit.</li> <li>The site has a strict no pets policy, subject to prior negotiation with proponent.</li> <li>Fires – Please do not light any fires within the site without the prior agreement of the proponent.</li> <li>Smoking – Smoking is only permitted in designated areas. Cigarette butts are to be discarded in waste receptacles provided. Please do not discard butts on the lawns and gardens.</li> <li>Lost Property – The proponent takes no responsibility for guests' personal property. Any personal property left behind will be returned to the booking holder only.</li> <li>Property restoration- the site should be left in a similar state to its condition on arrival. Any damaged buildings, structures, equipment, gardens or turfed areas will be rectified, repaired, replaced or otherwise restored as soon as practicable after the event, and to the satisfaction of the proponent.</li> <li>Termination of hire agreement and forfeit of bond. No amplified or live music will to be played after 5pm. Offensive noise is</li> </ul>	Ongoing	Proponents/ Function Holder

#### 4 Henstock Rd, Arcadia

#### Plan of Management

POTENTIAL ISSUE	CONTROL MEASURES	TIMING	RESPONSIBILITY
	prohibited and will result in termination of permission to occupy the property, eviction, loss of rental paid and extra charges for security and other expenses which will be deducted from Security Deposit or Bond under the Terms and Conditions.		

#### 5 Management Responsibility

#### 5.1 Accountabilities

#### 5.1.2 Proponent

The Proponent is responsible for management and shall establish and maintain the policies contained within this POM.

The Proponent ensures that the Function Holder and Sub-contractors understand and implement the requirements of the Plan of Management prior to the event. This POM will form part of the terms of agreement for any function to be held on site, where the terms of the POM are breached this will result in a loss of bond.

#### 5.1.3 Subcontractors

The Function Holder/Proponent shall clearly define the scope of service including the subcontractor's responsibilities for the controls outlined in the Plan of Management.

The subcontractor may only enter the site from the designated access points as shown on the site plan in Appendix A. Only sub-contractors with a scheduled appointment shall be granted access to the site.

#### 5.1.4 Function Holder

The Function Holder shall be made aware of their responsibilities and obligations as defined in this POM prior to agreement being made with the proponent. The terms of the POM will be the subject of the hire agreement between the Function Holder and the Proponent to ensure a financial disincentive is attached to the successful operation of the function.

#### 5.1.5 Communication Protocols

Both formal and informal communication systems are in place for any event to ensure that information regarding the Plan of Management is circulated effectively to relevant parties.

Subcontractors shall be included in communications to ensure the compatibility and effectiveness of their systems.

Communication with the community shall be done through the Proponent. The Proponent is responsible for the timing and effectiveness of all communications.

#### 5.1.6 Function/Event Monitoring

The Proponent will be the contact person with regard to implementation of the Plan of Management.

The Proponent has authority to initiate emergency response procedures where necessary.

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#### 5.1.7 Specific Emergency Responses, Contact Details, Emergency Preparedness

Any specific Emergency Response procedures required to be implemented are to be outlined by the Proponent.

The Contact details of the emergency services are to be located on site at a location that is easily accessible to all.

#### 6 Amendments to this Plan

The proponents can amend this POM where necessary, if those changes are deemed to result in improvements to the management of the premises. Consent may be required from Council, should any changes relate to specific conditions of development consent.

Plan of Management

4 Henstock Rd, Arcadia

Appendix A – Site Management Plans

(provided with DA documents)

ATTACHMENT 3 - ITEM

4 Henstock Rd, Arcadia Plan of Management

Appendix B – Acoustic Measures Summary as prepared by RWDI

(provided with DA documents)

4 Henstock Rd, Arcadia

Plan of Management

Appendix C – Waste Management Plan

(provided with DA documents)

## Appendix D – Traffic Management Plan

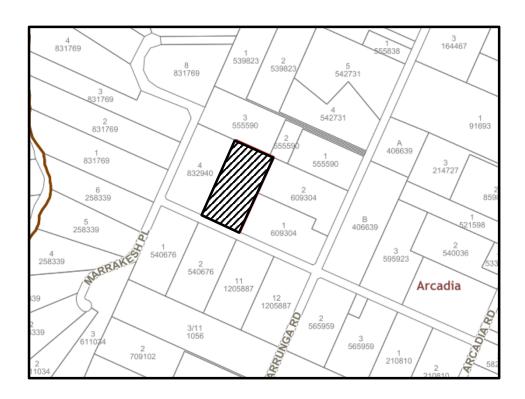
(provided with DA documents)

4 Henstock Rd, Arcadia

Plan of Management

Appendix E – Emergency Evacuation Plan

(provided with DA documents)



LOCALITY PLAN

DA/1205/2022

No. 4 Henstock Road, Arcadia



Peter Shipway c/- Lisa Wrightson Barker Ryan Stewart Re: 4 Henstock Road, Arcadia NSW 2159 (via email)

Ref: 2959\_RFI letter

24 April 2023

# Details of existing on-site sewage management system at 4 Henstock Road, Arcadia

The following is presented in response to a Hornsby Shire Council ("Council") RFI regarding existing on-site sewage management (OSSM) servicing the two (2) dwellings at 4 Henstock Road, Arcadia (the "Site"). This RFI was initiated in response to a Development Application (DA/1205/2022) submitted for the Site. The DA is seeking consent to host temporary functions ("events") of up to 70 patrons, and 10 support staff, within the secondary dwelling at the Site.

It is proposed that patrons <u>will not</u> have access to any wastewater generating facilities, with all event attendees directed to 'portable' bathroom facilities provided by the Client. <u>Only</u> staff will be permitted to use the bathroom facilities within the secondary dwelling, when it is unoccupied. Therefore, on this basis, no new or additional inputs to either of the OSSM systems at the Site are proposed by the DA.

Plans provided show that the DA includes the provision of car parking in the front area of the property, within close proximity to the existing spray irrigation land application area (LAA) servicing the main dwelling. This has been flagged by Council as a potential contact risk, prompting the request of the following information.

- · Confirmation of the capacity of the wastewater treatment system servicing each dwelling;
- · Confirmation of the size and location of the LAA servicing each dwelling; and
- Proposed alterations to the OSSM systems servicing each dwelling.

Details on the OSSM systems servicing each dwelling has been informed by a Site visit undertaken by W&A on the 19<sup>th</sup> of May 2021. This advice is proffered on the understanding that neither OSSM system has been altered since this visit, as per Client advice.

#### 1 Main Dwelling

The (primary) main dwelling contains four (4) bedrooms. Based on a conservative occupancy rate of 1.5EP per bedroom and a wastewater generation rate of 150L/EP/day, as per 'Residential' premises with reticulated water supply' (Table H1, *AS/NZS 1547:2012*), a wastewater generation rate of 900L/day has been assumed. There are no alterations proposed to the dwelling under the DA.

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The layout of the OSSM system servicing the main dwelling is presented in Figure 1 of Appendix A.

#### 1.1 Wastewater Treatment System

Wastewater generated within main dwelling currently undergoes secondary treatment in an 'Econocycle ENC10-1' Aerated Wastewater Treatment System (AWTS), located to the south west of the dwelling (Accreditation details provided in Appendix B). The AWTS no longer holds current NSW Health accreditation; however, it is understood the system is regularly serviced (3-monthly) by an approved maintenance Contractor.

During the Site inspection, the system was found to be in a good structural condition other than minor concrete chipping on the blower / pump housing. The access lids were intact and the internal components looked to be in good condition.

As a previously NSW Health accredited SMF (expired 31/12/2020), it can be assumed that the system has a minimum treatment capacity of 1,500L/day (~10EP). The assumed 'design' wastewater load from the dwelling is 900L/day, and no alteration is proposed under the DA; therefore, continued use of the AWTS to service the main dwelling is considered appropriate.

The proposed car parking conflicts with the AWTS location (refer Figure 1 of Appendix A). Relocation of the AWTS is problematic; therefore, it is recommended that the proposed car parking layout is amended to resolve this issue. Further, to comply with AS1546.3:2017, a physical barrier or buffer should be provided between trafficable areas and the AWTS.A nominal buffer of 2m is provided by the garden area surrounding the tank (refer Figure 2 of Appendix A).

#### 1.2 Land Application Area

Secondary (disinfected) effluent is spray irrigated to a ~155m² LAA installed within a landscaped (garden) area near the southern property boundary, east of the driveway access (refer Figure 1, Appendix A). Distribution is achieved via multiple (wobbler) sprinkler heads installed on ~1m risers.

It is understood the original (s.68) approval for this system required  $300\text{m}^2$  of LAA be provided for surface irrigation. It appears the LAA has been reduced over time as a result of re-location. No signage informing effluent reuse was observed. DLG (1998) recommend a minimum setback of 6m be applied between 'surface spray irrigation' areas and driveways. Council have requested a setback of >15m is applied to car parking areas.

It is recommended that the LAA be re-instated to 300m<sup>2</sup>, as per the original OSSM approval.

Due to the proposed (visitor) use, the LAA should be fenced or otherwise access-restricted. A minimum of two (2) warning signs, complying with AS1319:1994, should be installed to inform patrons that effluent reuse is occurring.

The existing spray irrigation LAA is located directly south of the proposed car parking area, with no available setback (refer Figure 1 of Appendix A). This does not comply with the Council specified setback requirement (15m); therefore, the LAA should be relocated.

A proposed location complying with the specified setback criteria is shown in Figure 2 of Appendix A.

2959: RFI response for 4 Henstock Road, Arcadia NSW

#### 2 Secondary Dwelling

The secondary dwelling contains two (2) bedrooms. Based on a conservative occupancy rate of 1.5EP per bedroom and a wastewater generation rate of 150L/EP/day, as per 'Residential premises with reticulated water supply' (Table H1, *AS/NZS 1547:2012*), a wastewater generation rate of 450L/day has been assumed for 'residential' use.

The DA proposes that (only) event support staff be allowed to use the bathroom facilities within the secondary dwelling, when it is <u>unoccupied</u>. Based on a wastewater generation rate of 30L/staff/day, as per 'Non-resident staff' (Table H4, AS/NZS 1547:2012), a wastewater generation rate of 300L/day has been assumed for 'event' use.

The layout of the OSSM system servicing the secondary dwelling has been presented in Figure 1 of Appendix A. There are no upgrades to this OSSM system proposed under the DA.

#### 2.1 Wastewater Treatment System

Wastewater from the secondary dwelling currently undergoes primary treatment in a 3,000L 'Everhard' polymer septic tank, located to the west of the building. The tank was found to be in good structural condition, with a working baffle and both inlet and outlet T-junctions installed. A healthy scum layer was observed within the tank.

As per Table J1 of AS/NZS 1547:2012, a minimum septic tank capacity of 3,000L is considered appropriate for developments of up to three (3) bedrooms ( $\sim$ 5EP), with an inferred treatment capacity of  $\leq$ 1,000L/day and an assumed 5-year pump-out interval.

Expected wastewater generation for the proposed uses of 450L/day (residential) and 300L/day (event) are less than the available capacity; therefore, the continued use of the septic tank to service the secondary dwelling is considered appropriate.

#### 2.2 Land Application Area

Primary effluent from the septic tank currently discharges to a subsoil absorption trench (the "operating trench") to the southeast of the tank, with a 'reserve' trench located to the northwest of the septic tank. Both trenches were investigated using ground probe and determined to have an approximate basal area of ~12m² each, based on measured dimensions of 20m (length) by 0.6m (width). Both trenches are of gravel-fill construction, with slotted pipe distribution.

The operating trench was observed to be working effectively at the time of inspection, with no evidence of poor performance (surface saturation) or damage.

The effective soil loading rate to the operating trench is approximately 37.5mm/day, based on the maximum hydraulic load proposed (residential). This value is higher than recommended for the observed soil conditions at the Site (Cat 5). Whilst no obvious signs of trench compromise are noted, ongoing high loading can lead to long-term performance decline.

W&A recommend the use of an effluent outlet filter to reduce the residual organic and suspended loads discharging to the trench as an appropriate mitigation strategy.

Also, it is advisable that regular inspection and maintenance of this OSSM system is undertaken by a licensed professional to ensure that problems can be promptly identified and rectified (if necessary). This can be simply achieved by adding the system to the contracted servicing schedule for the AWTS servicing the main dwelling.

The operating trench is located outside of area proposed for any development use.

#### 2959: RFI response for 4 Henstock Road, Arcadia NSW

To ensure potential impacts to the operating trench are avoided, it is recommended that the footprint is 'staked out' or otherwise marked, so that its location can be easily identified and sited on the surface.

Whilst the 'reserve' trench is operable, it is located within area proposed for utilisation (portable bathroom and catering / food truck area) under the event use, where it may become damaged due to vehicle movement and load placement.

It is recommended that the existing reserve trench be abandoned-in-place, and a new 'reserve area' be identified at the Site. This area is to remain set-aside from any future development, and will be used to replace or augment the operating trench if necessary.

A nominal location for a suitable reserve area is presented in Figure 2 of Appendix A.

#### 3 Conclusion and Recommendations

This concludes the assessment of the OSSM systems servicing the two (2) dwellings at 4 Henstock Road, Arcadia, as requested by Council. To ensure sustainable OSSM at the Site, without conflicting with the current DA, W&A recommend the following:

#### Main Dwelling

- The existing AWTS is appropriate for continued use, with ongoing regular servicing by a licensed provider;
- Secondary treated (and disinfected) effluent should be irrigated to a newly located 300m<sup>2</sup>
   LAA, complying with minimum Council buffers, as shown in Figure 2 of Appendix A; and
- The DA plans should be amended to remove conflict between the car parking area layout and recommended setbacks to the fixed AWTS location.

#### **Secondary Dwelling**

- The existing (3,000L) septic tank is appropriate for continued use, considering both the residential and event uses proposed;
- The septic tank should be fitted with an effluent outlet filter;
- Primary effluent shall continue to discharge to the operating trench, which should be 'staked out' or otherwise marked, such that its location can be identified on the surface;
- Inspection and maintenance servicing of the OSSM should be added to the existing servicing contract for the main dwelling OSSM system;
- The existing 'reserve trench' should be abandoned-in-place; and
- A new 'reserve area' is to be identified at the Site, with this area to remain set-aside from future development.

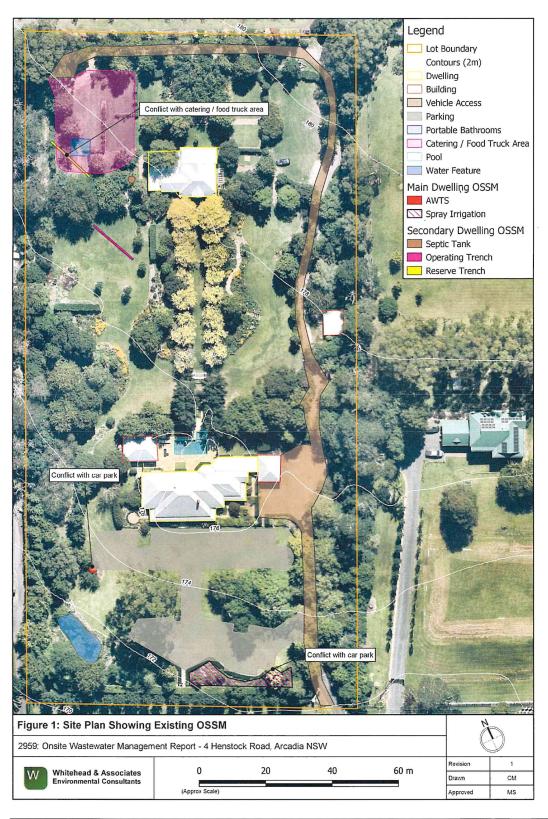
Yours Sincerely

Connor Morton

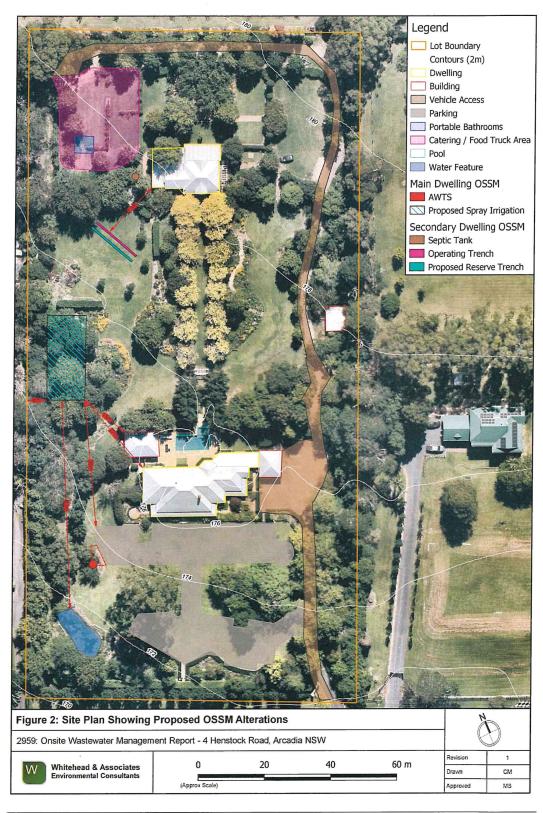
Environmental Consultant Whitehead and Associates Environmental Consultants Pty Ltd

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Appendix A Figure



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Appendix B

Accreditation Details

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# Certificate of Accreditation Sewage Management Facility Aerated Wastewater Treatment System

This Certificate of Accreditation is issued by the Secretary of the NSW Ministry of Health pursuant to Clause 41(1) of the Local Government (General) Regulation 2005.

System:

Econocycle model ENC 10-1 AWTS

Manufacturer:

Eco-septic Pty Ltd t/a Econocycle

Of:

15 Econo Place, Silverdale, NSW, 2752

The Econocycle model ENC 10-1 AWTS as described in Schedule 1, has been accredited as a sewage management facility for use in single domestic premises in N5W. This accreditation is subject to the conditions of accreditation and permitted uses specified in Schedule 2.

Director, Environmental Health for Secretary (delegation PH335)

Issued: 28 September 2015 Certificate No: AWTS 015 Expires: 31 December 2020

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# Schedule 1: Specification

#### Econocycle model ENC 10-1 Aerated Wastewater Treatment System

#### General Description

The Econocycle model ENC 10-1 Aerated Wastewater Treatment System (AWTS) is designed to treat the wastewater from a residential dwelling occupied by a maximum of 10 persons. The Econocycle model ENC 10-1 AWTS is contained in one vertical axis type cylindrical precast concrete collection well with a design capacity of 7000 litres. The operational water level in the aeration chamber of the system is 1440 mm. The system consist of:

- A primary sedimentation chamber with a capacity of 3050 litres;
- A contact aeration chamber with a capacity of 2500 litres, divided into two sections and each
  containing a block of contact filter media measuring 800 mm long x 800 mm wide x 1200 mm
  high with a surface area of 50 m<sup>2</sup>;
- A sedimentation/clarifying chamber with a capacity of 420 litres;
- An irrigation pump chamber with a capacity of 420 litres incorporating a capacity of 300 litres for chlorine contact of the effluent;
- · A chlorine disinfection unit installed on the outlet of the clarification filter;
- Air is supplied to the contact aeration chamber by an air blower with an output of 80 litres/minute at 1.5 m water depth;
- A submersible irrigation pump which delivers a minimum flow of 2.0 m³/hour at a minimum head of 7 m, or better.

#### Schedule 2: Conditions of Accreditation

#### 1.0 General

- 1.1 For each installation the owner/occupier of the premises shall make an application to the local authority to install an Econocycle model ENC 10-1 AWTS as a waste management facility in accordance with Section 68, Part C of the Local Government Act 1993 and Clause 26 of the Local Government (General) Regulation 2005.
- 1.2 The Econocycle model ENC 10-1 AWTS shall be supplied, constructed and installed in accordance with the design as submitted and accredited by the NSW Ministry of Health.
- 1.3 Any modification or variations to the accredited design of the Econocycle model ENC 10-1 AWTS shall be submitted for separate consideration and variation of the Certificate of Accreditation by the Secretary of the NSW Ministry of Health.
- 1.4 Each Econocycle model ENC 10-1 AWTS shall be permanently and legibly marked on a non-corrosive metal plaque or equivalent, attached to the lid with the following information:
  - The brand name of the system;
  - The manufacturer's name or registered trademark;
  - The month and year of manufacture.
- 1.5 The manufacturer shall supply with each Econocycle model ENC 10-1 AWTS and owner's manual, which sets out the care, operation, maintenance and on-going management requirements of the system.
- 1.6 The manufacturer shall provide the following information to each local authority where it is intended to install an AWTS in their area once Ministry accreditation has been obtained:

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- Statement of warranty
- · Statement of service life
- · Quality Assurance Certification
- Installation Manual
- Service Manual
- Owner's Manual

- Service Report Form
- Engineering Drawings on A3 format
- Detailed Specifications
- A4 Plans
- Accreditation documentation from NSW Health.

#### 2.0 Installation and Commissioning

- 2.1 The local authority should require that on completion of the installation of the Econocycle model ENC 10-1 AWTS, the system is inspected and checked by the manufacturer or the manufacturer's agent. The manufacturer or the agent is to certify that the system has been installed and commissioned in accordance with its design, conditions of accreditation and any additional requirements of the local authority.
- 2.2 The local authority should require that all electrical work must be carried out by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000.

#### 3.0 Maintenance

- 3.1 The local authority shall require the owner/occupier of the premises to enter into an annual service contract with a representative of Econocycle or a service contractor or company acceptable to the local authority.
- 3.2 The Econocycle model ENC 10-1 AWTS shall be serviced at three monthly intervals in accordance with the details set out in the owner's and service manual.
- 3.3 Each three monthly service shall include a check on all mechanical, electrical and functioning parts of the system including:
  - The chlorinator and replenishment of the disinfectant.
  - · Pumps, air blower, fan or air venturi.
  - The alarm system (where possible),Slime growth on the filter media.
  - Slime growth on the filter media.
     Operation of the sludge return system,
  - The effluent irrigation area,
  - On-site testing for free residual chlorine. pH and dissolved oxygen.
- 3.4 The local authority should require that a service report sheet, in triplicate, is completed for each service. The original shall be given to the owner, the duplicate forwarded to the local authority and the triplicate retained by the service contractor.

#### 4.0 On-going Management

- 4.1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the Econocycle model ENC 10-1 AWTS. The plan shall include details of:
  - the treatment process,
  - · procedures to be followed in the event of a system failure,
  - emergency contact numbers,
  - maintenance requirements,
  - inspection and sampling procedures to be followed as part of the on-going monitoring program developed by the local authority.

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4.2 Effluent from the Econocycle model ENC 10-1 AWTS taken in any random grab sample shall comply with the following standard:
 BOD<sup>5</sup> (less than 30 mg/L)

· SS E. coli (less than 45 mg/L)

(less than 100 cfu/100 ml)

(greater than 0.2 and less than 2.0 mg/L) Free residual chlorine

#### 5.0 Permitted uses

- 5.1 The effluent is suitable for re-use for garden purposes by way of any of the forms of irrigation as described in AS/NZS 1547:2000:
  - above ground spray irrigation; or
  - surface drip irrigation covered by mulch; or
  - sub-surface drip irrigation installed at around 100 mm depth.

Each of the three forms of irrigation is subject to the approval of the local authority.

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