Bredy Farm Music Events

Event Noise Management Plan

for Bredy Farm LLP



BREDY FARM MUSIC EVENTS

NOISE MANAGEMENT PLAN

IDENTIFICATION TABLE						
Client/Project Owner Bred		dy Farm				
Project		Out	door Music Events 2021			
Study		Noi	se Management	Plan		
Type of Document Rep		ort				
Date 18/0		03/2021				
Reference Number TS/I		/NMP/2020/15				
Number of Pages 33						
DOCUMEN	DOCUMENT CONTROL					
Version	Name		Position	Date	Modifications	
			Principal Consultant	18/03/2021		
	Chris Hurst					

DISCLAIMER

This report was completed by Three Spires Acoustics Ltd on the basis of a defined programme of work and terms and conditions agreed with the Client. The report has been prepared with all reasonable skill, care and diligence within the terms of the Contract with the Client and taking into account the project objectives, the agreed scope of works, prevailing site conditions and the degree of manpower and resources allocated to the project.

Three Spires Acoustics Ltd accepts no responsibility whatsoever, following the issue of the report, for any matters arising outside the agreed scope of the works. This report is issued in confidence to the Client and by Three Spires Acoustics Ltd has no responsibility of whatsoever nature to third parties to whom this report or any part thereof is made known. Any such party relies upon the report at their own risk. Unless specifically assigned or transferred within the terms of the agreement, by Three Spires Acoustics Ltd retains all copyright and other intellectual property rights, on and over the report and its contents.

© Three Spires Acoustics Ltd

TABLE OF CONTENTS

Report

1.	INTRODUCTION	5
1.2	CONSULTANTS EXPERIENCE	5
2.	SITE AND EVENT DESCRIPTION	6
3.	LOCAL AUTHORITY REQUIREMENTS	6
4.	NOISE GUIDANCE AND STANDARDS	9
4.1	CODE OF PRACTICE ON ENVIRONMENTAL NOISE CONTROL AT CONCERTS 1995	9
4.2	Noise Act 1996	10
5.	BACKGROUND NOISE ASSESSMENT	10
5.2	Ambient and Background Results	11
5.3	MUSIC NOISE PREDICTIONS	12
6.	SOUND CONTROL PROCEDURES	15
6.2	ORGANISATIONAL CONTROLS	16
6.3	PRE-EVENT INFORMATION	16
6.4	SOUND SYSTEM DESIGN	17
6.5	2020/21 Noise Reduction Measures	17
7.	MUSIC NOISE LIMITS	17
7.2	SOUND PROPAGATION AND PRE-EVENT TESTS	18
7.3	SOUND MONITORING CONTROL	19
7.4	COMMUNITY MONITORING	19
7.5	COMPLAINT MONITORING	19
7.6	POST 23.00 PHASED REDUCTION	19
7.7	COMPLIANCE REPORT	19
8.	CONCLUSION	20
APPENDIX A	A: RESULTS	21
APPENDIX B	3: NOISE MEASUREMENT RECORD TABLE & PROCEDURES	23
APPENDIX C	C: COMMENT/COMPLAINT FORM	25
APPENDIX D	D: METEOROLOGICAL DATA	26
APPENDIX C	C: GLOSSARY OF TERMS	32
LIST OF F	IGURES	
Figure 1. Figure 2. Figure 3. Figure 4. Figure 5.	Background Noise Measurement locations Noise Contour Map SW Moderate Breeze Wind Conditions - 90dB(A) FOH Noise Contour Map Calm Wind Conditions -90dB(A) FOH Noise Contour Map Calm Wind Conditions -95dB(A) FOH Noise Contour Map SW Moderate Breeze Wind Conditions -95dB(A) FOH	10 13 13 14 14
Bredy Farm I	Music Events	
Noise Manag	gement Plan CH/NMP/2020/15	

18/03/2021

Page 3/33

Figure 6. Figure 7. Figure 8.	Stage 2 Noise Contour Map Calm Wind Conditions 85dB(A) Schematic of Communication and Noise Control Process Noise Monitoring Location Map	15 16 18
LIST OF TABI	LES	
Table 1.	Guideline Music Noise Limits	9
Table 2.	MP1 LAeq,15min & L90,15minute Measurement Results (12.00 to 23.45)	11
Table 3.	MP2 LAeq,15min & L90,15minute Measurement Results (12.00 to 23.45)	11
Table 4.	Music Noise limits	12
Table 5.	Noise Modelling Predicted Noise Range at NSR's	15
Table 6.	Music Noise Limits and Monitoring Locations	18

Page 4/33

1. INTRODUCTION

1.1.1 Three Spires Acoustics Ltd (TSA) have been commissioned by Bredy Farm LLP to provide a Noise Management Plan for outdoor music events held at

The Farm runs three small family friendly events each year, during May, July and August and the Noise Management Plan (NMP) has been required by the client in order to detail the noise management procedures that will be implemented in order to minimise the effects of noise from live and recorded amplified music and assist with compliance of the requirements of the Premise Licence issued by the Licensing Authority at Dorset Council.

1.2 Consultants Experience

Three Spires Acoustics is an acoustic consultancy specialising in providing advice to the entertainment industry and licensing authorities on matters relating to the management of sound and regulatory compliance at outdoor and indoor events.

The team of consultants have experience dealing with many outdoor concerts and events throughout the UK including; Parklife, Filed Day, Bluedot, Lost Village Festival, and SW4 at Clapham Common amongst many others. Consultants have membership of the Institute of Acoustics (IOA) and the Chartered Institute of Environmental Health (CIEH) and the Institute of Licensing (IOL) and several members of staff have a regulatory or sound engineering background.

Chris is also part of the current Institute of Acoustics (IOA) working party looking into Good Practice Guidance for Noise Control from Places of Entertainment and also on the working party which has been formed by the Chartered Institute of Environmental Health Officers (CIEH) to review and update the Code of Practice on Environmental Noise Control at Concerts 1995.

As well as the provision of sound and acoustic design/management for entertainment venues, the company deals with a range of noise and regulatory control issues and our staff have presented expert testimony at planning and licensing hearings.

1.2.1 Professional Associations

Members of The Institute of Acoustics (MIOA)

Members of The Institute of Licensing (AMIOL)

Members of the Chartered Institute of Environmental Health Officers (MCIEH)

Chartered Environmental Health Practitioner (CEnvH)

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 5/ 33

2. SITE AND EVENT DESCRIPTION

- 2.1.1 Bredy Farm is situated in the heart of the Bride Valley, near the Dorset coastline. It is a working farm and events venue, hosting a range of events including; weddings, camping and small music events, three weekends each year, typically at the end of May, the beginning of July and the end of August.
- 2.1.2 The music festivals are all small scale events, typically of a few hundred persons (Premises Licence Capacity 1000). There are two stages, with the main stage orientated to the south and a secondary smaller stage oriented to the east. The second stage uses a significantly smaller PA system and is primarily for small duos or groups performing during the main stage changeover.
- 2.1.3 The area is that of a rural countryside location, with working farms, holiday cottages and holiday parks within with the vicinity of event site. The closest properties are Graston House and Graston Farm which are approximately 300m from Bredy Farm and 530m from the event site. A Google Aerial Photograph of the event site and locality is detailed at Figure 5 on page 15.

3. LOCAL AUTHORITY REQUIREMENTS

3.1.1 Premises Licence reference WDPL0768 was issued to Bredy Farm on 05/06/2019. The following conditions related to noise control from outdoor performances of live music are reproduced below;

Performance of live music (Outdoors)

Friday, Saturday, Sunday 12:00 to 23:45

Seasonal Variations: This is for the events to be held throughout the summer. 1st May to 30th September

Prevention Of Public Nuisance

- I. A direct telephone number for the manager at the premises shall be publicly available at all times the premises is open. This telephone number is to be made available to residents and businesses in the vicinity.
- II. The activities of persons using the external areas will be monitored after 23:45 hours and they will be reminded to have regard to the needs of local residents and to refrain from shouting and anti-social behaviour etc when necessary.
- III. The PLH/DPS will adopt a "cooling down" period where music volume is reduced towards the closing time of the premises e.g. for the last hour of opening.
- IV. Clear and legible notices will be displayed at exits, car parks and other circulatory areas requesting patrons to leave the premises quietly having regard to the needs of

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 6/ 33

local residents, in particular emphasising the need to refrain from shouting, slamming car doors, sounding horns and loud use of vehicle stereos and anti-social behaviour.

- V. 2 SIA Registered door staff will be employed and used to manage queues and ensure queues are restricted to cordoned areas to prevent them obstructing footpaths and spilling out onto roads, and to keep noise and obstructions away from residential property.
- VI. The premises supervisor and any door supervisors will monitor the activity of persons leaving the premises and remind them of their public responsibilities where necessary.
- VII. A facility will be provided for customers to order taxis/private hire vehicles. Telephone numbers for taxi firms/private hire companies will be displayed in a prominent position on the premises.

3.1.2 Conditions Set By Environmental Health

1) At least 2 months before any outdoor event takes place, a Noise Management Statement and Plan shall be produced by a suitably qualified acoustic consultant and submitted to Environmental Protection and agreed prior to the event taking place. The plan shall appropriately reflect the Guidelines in Sections 3.1,3.2, 3.3,3.4, 3.5,3.7, 3.8,3.9, 3.10, 4.2, 4.3, 4.7, 4.8 (*see note), 4.9, 4.10, 4.11 and 4.12 of the Code of Practice on Environmental Noise at Concerts, as produced by the Noise Council (The Code). * In relation to Section 4.8, it is not expected that such sound tests should be performed before every event. However, such a test should be performed after any significant change to the sound system or attenuation measures, and at least once every year.

In particular, but without prejudice to the generality of Condition 1, the following conditions shall apply. (Note that a suitably worded Noise Management Plan, as required by Condition 1, should include provisions to address these following points):

- 2) The acoustic consultant shall identify appropriate sensitive receptors which may be affected by noise from the Licensed Premises. These will be sensitive premises likely to experience the largest increase in noise/highest noise level as a result of noise from the Licenced Premises. These shall be agreed with Environmental Protection prior to any event. The acoustic consultant shall carry out a survey in calm meteorological conditions to determine the representative background noise levels (as defined by the Code of Practice on Environmental Noise Control at Concerts) at these receptor locations, or locations acoustically representative of them. The information obtained from this survey shall be made available to an authorised officer of the council or a police constable upon request.
- 3) As soon as a music event is being prepared, a noise propagation test shall be undertaken in order to set appropriate control limits at the sound mixer position. The sound system shall be configured and operated in a similar manner as intended for the actual music events. The sound source used for the test shall be similar in character to the music likely to be produced during the events. It is not expected that such sound tests should be performed before every event. However, such a test should be performed after any

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 7/ 33

significant change to the sound system or attenuation measures, and at least once every year.

- 4) The control limits set at the mixer position shall be adequate to ensure that the Music Noise Level (MNL) (as defined in the Code) shall not reasonably foreseeably at any noise sensitive premises exceed the background noise level (as determined in pursuit of compliance with Condition 2) by more than 15dB(A), or at such other differential level that may be agreed in writing between the applicant and the Environmental Health Service of Dorset Council, over a 15 minute period throughout the duration of music events rehearsals, or other checks.
- 5) The Licensee shall ensure that the promoter, sound system supplier, sound engineers and any other personnel with responsibilities affecting noise levels are informed of the sound control limits and that any instructions from the acoustic consultant regarding noise levels shall be implemented.
- 6) The Licensee shall ensure that the appointed acoustic consultant makes arrangements for the continual monitoring (with sound level meter) of noise levels at the sound mixer position, and for prompt feedback to the sound engineer accordingly to ensure that the noise limits are not exceeded. An authorised officer of the Council shall have access to the results of the noise monitoring at any time.
- 7) Music events shall be run in accordance with the Noise Management Statement and Plan.
- 8) The Licensee shall take all reasonable steps to ensure that the MNL arising from the licensable activities do not exceed the limit set in Condition (4) at the sensitive receptors identified in response to Condition (2).
- 9) Measurements will include octave and one third octave band measurement where useful in identification of any intrusive frequency. In particular measurements required by Condition (6) will be made at 63Hz and 125Hz octave bands.
- 10) A written record of the method by which monitoring and measurements were undertaken shall be made by the acoustic consultant and maintained by or on behalf of the Licensee.
- 11) All noise measurements shall be undertaken in accordance with recognised professional acoustic practice. Written proof shall be available on request an authorised officer of the council so that any sound level meter used in pursuit of compliance with these conditions has been appropriately calibrated within a suitable timescale before its use.
- 12) In the event of the limits in Condition (4) being exceeded, or it being determined as necessary to reduce the noise levels to these limits, then in either case the Licensee shall: (i) take and keep a written record of the time and date when such levels are exceeded or the noise levels are required to be reduced (as the case may be); (ii) take and keep a written record of every step undertaken to reduce the noise levels below the limits and the time when such action was taken; and (iii) Produce such a written record to any officer of the Council (or other person appointed to act upon its behalf) upon request.

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 8/ 33

- 13) All data in respect of the monitoring carried out in pursuit of compliance with these conditions shall be in writing and that information, together with that secured by virtue of conditions (2) and (3) above, shall be both provided to the an authorised officer of the council within 15 working days of any request. The information shall be provided: (a) Unedited form; and (b) such other additional form(s) as the authorised officer may at any time required in writing.
- 3.1.3 Live and recorded music shall be played only within the hours specified on the Application for Premises Licence 047107

4. NOISE GUIDANCE AND STANDARDS

4.1 Code of Practice on Environmental Noise Control at Concerts 1995

4.1.1 The Code of Practice first published in 1995, addresses environmental noise control at concerts and similar large music events involving high powered amplification when held in sporting stadia, arenas, open air sites and within lightweight buildings. Various guidelines and criteria are described. For events held between 0900 and 2300 the Music Noise Level (MNL) when assessed at the prediction stage or measured during sound checks or concerts should not exceed the levels detailed in Table 1 below;

Table 1. Guideline Music Noise Limits

Concert days per Year	Venue Category	Guideline
1 To 3	Urban Stadia & Arenas	The MNL should not exceed 75dB(A) over a 15minute period
1 To 3	Other Urban & Rural Venues	The MNL should not exceed 65dB(A) over a 15minute period
4 To 12	All Venues	The MNL should not exceed the background noise level by more than 15dB(A) over a 15 min period

- 4.1.2 The above 1995 CoP does not specify limits for low frequencies although there is a footnote with some helpful guidance. Whilst this is only a footnote, there have been an increasing number of council's who have adopted these low frequency limits.
- 4.1.3 The conclusions of the research behind the footnote state that:
 - At open air venues, the increase over background 'A' weighted criterion works well at minimizing complaints near to a venue.
 - The 'A' weighted criterion can underestimate annoyance at greater distances from the venue (in excess of 2km) as the mid to high frequency energy is quickly attenuated with respect to low frequency and the expectation of people living some distance from the event being that the concert should be inaudible.

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 9/ 33

Sound pressure levels in excess of 80dB in the 63Hz or the 125 Hz octave bands recorded in excess of 2km from the concert, are likely to give rise to complaints of low frequency noise. Levels below 70dB are likely to be acceptable.

4.2 Noise Act 1996

- 4.2.1 The powers under the Noise Act 1996 are in addition to those possessed by local authorities under the Environmental Protection Act 1990 and the Noise and Statutory Nuisance Act 1993 on statutory nuisance.
- 4.2.2 Following a complaint of excessive noise being emitted from licensed premises between 23:00 hrs and 07:00 hrs, Local Authorities may investigate under the Noise Act 1996 (as amended by the Clean Neighbourhoods and Environment Act 2005). If they consider the noise to be exceeding the "permitted level", they can serve a warning notice on the person they consider to be responsible. If the noise persists after the warning notice has been served, the Local Authority can measure the noise against the "permitted level". It is an offence to exceed the permitted level and offenders can be issued with a Fixed Penalty Notice (£500 for licensed premises) at that time or later, or can be prosecuted.
- 4.2.3 The "permitted level" (as set out in The Permitted Level of Noise (England) Directions 2008) is 34 dBA, if the underlying level of noise is no more than 24 dBA; or 10 dBA above the underlying level of noise where this exceeds 24 dBA.

5. BACKGROUND NOISE ASSESSMENT

5.1.1 A background noise survey was carried out from 13.20 on Wednesday 10th June to 11.37 Monday 15th June 2020. Noise monitoring was undertaken at location MP1 at the boundary of Bredy Farm with Graston Manor and MP2 in a field close to Cogdon Farm and identified in Figure 1 below





Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 10/33

- 5.1.2 The sound level meters were set to record all broadband and statistical A weighted and octave band sound pressure levels including L90 and Leq. Measurements were simultaneously made of 1 minute and 15minute time intervals. Measurements were obtained using the following instrumentation complying with the Type 1 specification of IEC 60651, IEC 61260 and IEC 61672;
- 5.1.3 Bruel and Kjaer 2250 Integrated SLM Serial Nos 3010392 & 3004769
- 5.1.4 Bruel and Kjaer 4231 Field Calibrator 3001533
- 5.1.5 The equipment was calibrated using a B&K 4231 field calibrator both before and after the survey and no significant drift was observed. Full calibration certificates are available upon request. Measurements were supplemented with timed and triggered audio recordings to enable post measurement analysis. Weather conditions were variable throughout the measurement period, with heavy rain showers and wind speeds above 5m/s on Thursday 11th and up to 18.00 on Friday 12th June 2020. Therefore these periods have been excluded from the background noise assessment. Further meteorological data is contained in Appendix D.

5.2 Ambient and Background Results

5.2.1 Table 2 and 3 details the ambient and background noise measurement results at MP1 and MP2 for the 12.00-23.00 and 23.00-23.45 situations and are considered representative of the underlying acoustic environment without music noise present and have therefore been used for assessment purposes.

Table 2. MP1 LAeq,15min & L90,15minute Measurement Results (12.00 to 23.45)

Situation	LAeq,15min Range	LAeq,15min Mode	LA90,15min Range	LA90,15min Ave
12.00-23.00	27-62	43	25-47	35
23.00-23.45	28-44	30	26-38	29

Table 3. MP2 LAeq,15min & L90,15minute Measurement Results (12.00 to 23.45)

Situation	LAeq,15min Range	LAeq,15min Mode	LA90,15min Range	LA90,15min Ave
12.00-23.00	23-60	37	20-44	31
23.00-23.45	22-39	25	20-35	25

- 5.2.2 Table 4 details the indicative external guideline limit levels which have been based on the ambient and background noise survey and the requirements of condition 4 of the Premises Licence.
- 5.2.3 Aural assessment indicate that the acoustic environment included birdsong, wind in trees, noise from farm animals, periodic light aircraft and agricultural machinery noise. There was limited distant traffic noise due to reduced traffic levels as a result of the Covid 19 outbreak.

Bredy Farm Music Events			
Noise Management Plan	CH/NMP/2020/15		
Report	18/03/2021	Page	11/ 33

Table 4. Music Noise limits

Time Of Day	Locations	MNL
		LAeq,15min
12.00-23.00	MP1	50dB(A)
12.00-23.00	MP2	44dB(A)
23.00-23.45	MP1	46dB(A)
23.00-23.45	MP2	40dB(A)

5.3 MUSIC NOISE PREDICTIONS

- 5.3.1 In order to determine the sound propagation characteristics between the proposed music stage and those living nearby who might be affected by noise, music noise propagation modelling has been undertaken using d&b audiotechnik "noizcalc" proprietary software. Figure 1 and 2 presents the noise contour maps for the proposed layout under two different wind conditions.
- 5.3.2 The modelling has included the following assumptions
 - d&b audiotechnik Array Calc used to provide the speaker array based on V series 4 cabinets flown at 3.5m (5⁰ angle for top cabinets) and 2Nos sub bass cabinets. Similar in design to the system installed
 - Terrain data from Google MAPS
 - Main Stage FOH Level 90dB(A) & 95dB(A)—Live Bands Rock/Pop standard spectrum applied. Stage 2 85dB(A) —Live Bands Rock/Pop standard spectrum applied
 - Grid Height 1.5m, soft ground conditions,
 - 2.5m earth bund to north east of stage
 - Fig1 Wind Direction SW (213⁰) Prevailing direction for the UK (70% per year) Moderate breeze applied Beaufourt Scale 4. Fig 2,3 & 4 Calm Wind Conditions
 - Uncertainty +/3dB

Figure 2. Noise Contour Map SW Moderate Breeze Wind Conditions - 90dB(A) FOH

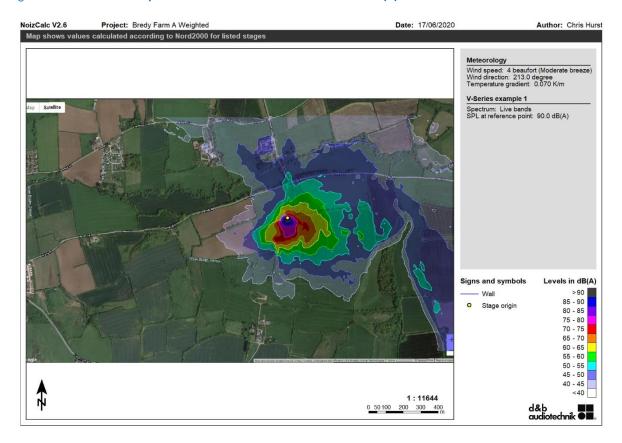
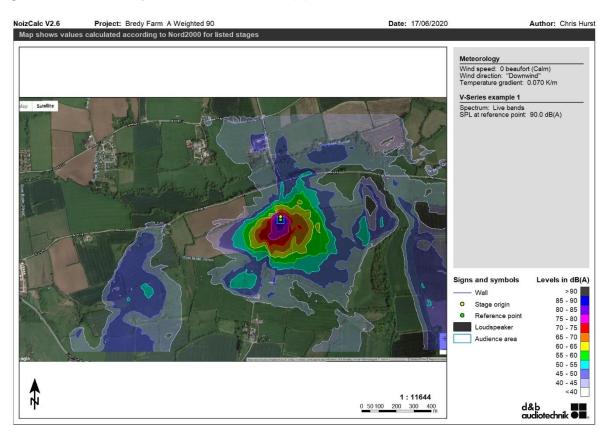


Figure 3. Noise Contour Map Calm Wind Conditions -90dB(A) FOH



Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 13/33

Figure 4. Noise Contour Map Calm Wind Conditions -95dB(A) FOH

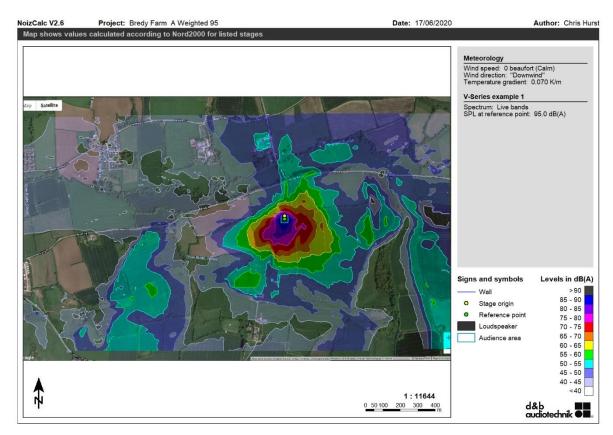
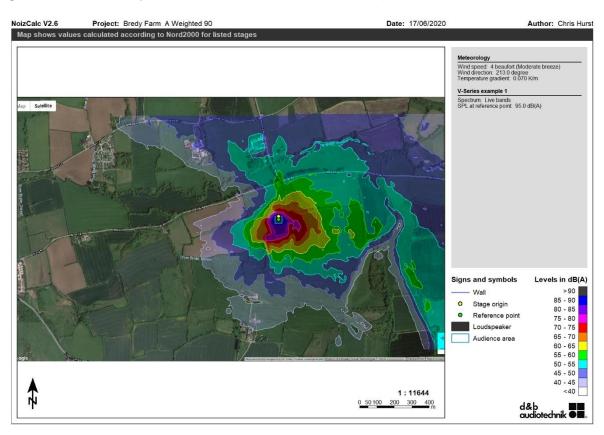


Figure 5. Noise Contour Map SW Moderate Breeze Wind Conditions -95dB(A) FOH



Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 14/33

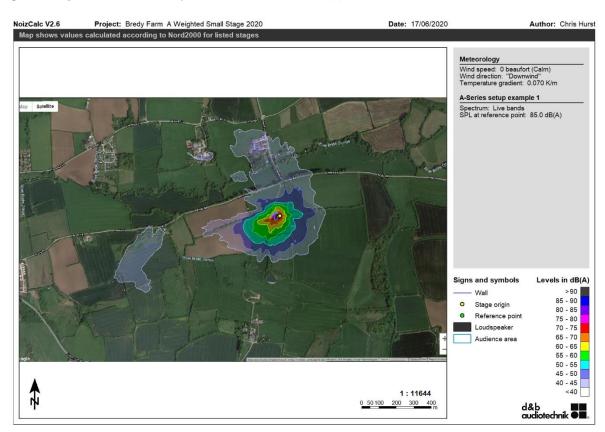


Figure 6. Stage 2 Noise Contour Map Calm Wind Conditions 85dB(A)

Table 5. Noise Modelling Predicted Noise Range at NSR's

Location	90dB(A) SW	90dB(A)Calm	95dB(A) SW	95dB(A) Calm	Stage 2 Calm
MP1	40-45	Below 40	45-50	40-45	40-45
MP2	40-45	Below 40	45-50	40-45	40-45
MP3	Below 40	Below 40	Below 40	40-45	Below 40
MP4	Below 40	Below 40	40-45	Below 40	Below 40
MP5	40-45	40-45	45-50	45-50	Below 40

- 5.3.3 Table 5 above details the predicted range of noise levels for each modelled situation at the noise sensitive receptor locations. It is considered that the modelling validates the site for use for music events and correlates to the sound levels measured by operator at previous events, giving a high degree of confidence Premises Licence requirements can be achieved.
- 5.3.4 It is however, recommended that for the post 23.00 situation FOH levels are reduced to 90dB(A) or below.

6. SOUND CONTROL PROCEDURES

6.1.1 In order to ensure that the Premise Licence condition limits are complied with, the following noise control procedures, that have been successfully used by TSA at other similar events, will be employed for future events. It is anticipated, as normally occurs, that the event management staff carrying out the sound control program will work closely with the

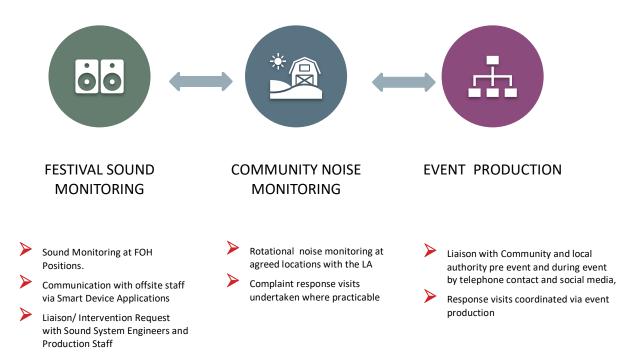
Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 15/33

Environmental Health Officers from Dorset Council. A brief outline of the procedures are provided below.

6.2 Organisational Controls

Event management staff will work closely with both the sound system engineers as well as liaising directly with Dorset Council Environmental Health and Licensing Officers as required. Rotational noise monitoring will be undertaken at agreed offsite representative community receptor locations with the Local Authority. A Schematic of the communication and noise control process is presented in Figure 7 below.

Figure 7. Schematic of Communication and Noise Control Process



6.3 Pre-Event Information

- 6.3.1 We have been informed by the client that the following pre-event procedures will be in place. The Event Manager/Production Manager will ensure that any visiting contractors and/or PA companies are advised of the noise constraints which relate to the site and details of this will also be contained within any contract documentation.
- 6.3.2 It is understood that residents will be informed of a contact telephone number (that will be attended by event management staff throughout the event) to enable them to register a comment/complaint with respect to noise. Residential properties shall be contacted and will be advised of:
 - The times of the events
 - Any sound check or rehearsal times
 - A telephone number to contact in the event of a comment/complaint

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 16/33

Liaison will take place with the Local Authority's Licensing and Environmental Health Departments to agree aspects such as sound propagation test times, complaint logging and assessment and contact protocols. A copy of the complaint log is presented in Appendix B.

6.4 Sound System Design

- 6.4.1 Sound systems which provide more audience focus and control whilst minimising noise pollution spillage from the site should be used in preference to other types of system. Therefore, a flown line array system will be deployed to achieve this objective, this will be angled towards the ground to reduce longitudinal throw of the system.
- 6.4.2 A cardioid arrangement of the sub base array can be deployed to assist in the reduction of low frequency noise. The cardioid arrangement uses noise cancellation techniques to produce a heart-shaped coverage pattern in which levels are louder to the front of it and lower behind it which assist with low frequency noise breakout out and prediction.
- 6.4.3 Sound System Details
 - 4 x RCF HDL20a cabinets per side
 - 1 x 8006 sub per side

6.5 2020/21 Noise Reduction Measures

- 6.5.1 A previous acoustic assessment by Netherbound consultants' included a number of noise reduction measures which we understand have now been implemented as part of the noise control strategy and are detailed below
 - Extend earth bund to create one single curve to a height of 3m (client has informed that 2.5m barrier constructed)
 - Increase sound insulation material to the rear of the stage area. (to be undertaken for future temporary stage)
 - Ensure height of top cabinets of sound system angled to 15 degrees (implemented for 2019 events)
 - Reorientation of stage from an easterly to a southerly direction.

7. MUSIC NOISE LIMITS

7.1.1 The control limits set at the mixer position shall be adequate to ensure that The Music Noise Level (MNL) shall not, at any noise sensitive premises, exceed the MNL's detailed in Table 2 below. Figure 4 presents a location map of the monitoring locations.

An informal low frequency C Weighted limit has been recommended to achieve no more than 20dB above the A Weighted guideline level and aligns with the footnote within the Code of

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 17/33

Practice. This will be further assessed during the next events either in 2020 or 2021 and maybe subject to further minor alteration.

Table 6. Music Noise Limits and Monitoring Locations

Location	12.00 to	23.00	23.00	to 23.45
	MNL dB(A) ¹	MNL dB(C) ²	MNL dB(A) ¹	MNL dB(L) ²
MP1, MP2, MP3, MP5	50	70	44	64
MP4	45	65	40	60

Note

- 1. The LAeq, 15minute Music Noise Level (MNL) measured for any 15 minute period of the event measured at any representative noise sensitive premise
- 2. The LCeq,15minute Bass Music Noise Level (BMNL) measured for any 15 minute period of the event measured at any representative noise sensitive premise

Figure 8. Noise Monitoring Location Map



7.2 Sound Propagation and Pre-Event Tests

7.2.1 Sound propagation tests will be carried out before the start of each music event either the day before or on the morning of the event. These involve playing pre-recorded music through the PA systems and measuring sound levels simultaneously at the FOH positions within the site and at the specified monitoring locations. The sound system can then be fine-tuned by using the PA characteristics and Digital Signal Processing, such that the maximum attenuation can be achieved from inside to outside the festival site and a maximum A and C Weighted level can also be set at the mixer positions in order that Premise Licence conditions can be complied with.

Bredy Farm Music Events			
Noise Management Plan	CH/NMP/2020/15		
Report	18/03/2021	Page	18/ 33

7.3 Sound Monitoring Control

7.3.1 A permanent sound monitoring device will be located at the FOH position, capable of measuring A & C Weighted sound pressure levels either as an SPL(S) or as an Leq,1minute level. This point will be permanently monitored by the sound engineer and will enable real time music levels to be viewed. Should the offsite monitoring levels reach a critical level, an intervention request will be made to the engineer via smart device application such as What's App, to reduce the onsite levels.

7.4 Community Monitoring

7.4.1 Periodic noise monitoring will be undertaken on a rotational basis, throughout each day of the event and details of monitoring included in a report log, an example of which is included in Appendix A. It is expected that at least two positions will be visited per hour throughout each day of the event. Where an intervention will be necessary to ensure MNL's are compliant, instruction will be conveyed by smart device application with the sound engineer or event management staff to make the appropriate reduction. A measurement procedure note is detailed at Appendix B.

7.5 Complaint Monitoring

7.5.1 Should complaints of music noise arise during the event, the details will be logged by the onsite Production Management Team and where practicable and where a resident wishes for a member of staff to visit, this will be undertaken and location measurements recorded. Intervention request will be initiated as per above. A copy of the complaints log is presented in Appendix B.

7.6 Post 23.00 Phased Reduction

7.6.1 FOH levels will be reduced to 90dB(A) or below for the 23.00 to 23.45 time period. A staggered or blended transition phase may be introduced before 23.00 to avoid a step change in level. Any incidental or background music at the bar areas post 23.45 must be carefully monitored to ensure that any music noise is audibly indiscernible above ambient noise levels at the closest noise sensitive receptors.

7.7 Compliance Report

7.7.1 A compliance report will be issued within 10 working days of the event finishing which will detail the measurement results from all locations.

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 19/33

8. CONCLUSION

8.1.1 Three Spires Acoustics Ltd (TSA) have produced a Noise Management Plan to assist with event noise control at the outdoor music events held at

8.1.2 It is considered that the Noise Management Plan adequately details the noise management methodology and procedures that will be implemented in order to minimise the effects of noise from live and recorded amplified music and assist with compliance of the Premises Licence issued by the Licensing Authority at Dorset Council.

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 20/33

Appendix A: Results

Wed			Thur						Fri					
MP1001 (1)			MP1002						MP1003 (1)					
	IΔeα	LAF90.0		IΔeα	LAF90.0	Start	ΙΔeα	LAF90.0		IΔeα	LAF90.0	Start	ΙΔeα	LAF90.0
10/06/2020 13:30	47	36	10/06/2020 23:00	43	38	11/06/2020 11:00	47	43	11/06/2020 23:00	41	37	12/06/2020 11:00		46
10/06/2020 13:45	47	36	10/06/2020 23:15	44	38	11/06/2020 11:15	50	45	11/06/2020 23:15	39	34	12/06/2020 11:15	53	46
10/06/2020 14:00	48	37	10/06/2020 23:30	36	32	11/06/2020 11:30	50	45	11/06/2020 23:30	40	34	12/06/2020 11:30		48
10/06/2020 14:15	41	36	10/06/2020 23:45	38	34	11/06/2020 11:45		42	11/06/2020 23:45	44	38	12/06/2020 11:45	53	48
10/06/2020 14:30	42	36	11/06/2020 00:00	41	37	11/06/2020 12:00	50	44	12/06/2020 00:00	45	41	12/06/2020 12:00		47
10/06/2020 14:45	55	39	11/06/2020 00:15	42	37	11/06/2020 12:15	54	47	12/06/2020 00:15	46	39	12/06/2020 12:15	54	49
10/06/2020 15:00	42	40	11/06/2020 00:30	46	39	11/06/2020 12:30	50	44	12/06/2020 00:30	44	39	12/06/2020 12:30		48
10/06/2020 15:15	41	38	11/06/2020 00:45	53	38	11/06/2020 12:45	54	48	12/06/2020 00:45	44	39	12/06/2020 12:45	56	49
10/06/2020 15:30	62	39	11/06/2020 01:00	45	37	11/06/2020 13:00	52	46	12/06/2020 01:00	43	39	12/06/2020 13:00		47
10/06/2020 15:45	43	39	11/06/2020 01:15	50	39	11/06/2020 13:15	52	44	12/06/2020 01:15	47	40	12/06/2020 13:15	58	47
10/06/2020 16:00	48	39	11/06/2020 01:30	42	37	11/06/2020 13:30	58	44	12/06/2020 01:30	47	41	12/06/2020 13:30		48
10/06/2020 16:15	46	40	11/06/2020 01:45	44	36	11/06/2020 13:45		43	12/06/2020 01:35	48	43	12/06/2020 13:45	50	46
10/06/2020 16:30	47	40	11/06/2020 02:00	39	34	11/06/2020 13:43		46	12/06/2020 01:43	47	42	12/06/2020 13:43		44
10/06/2020 16:45	44	40	11/06/2020 02:05	43	35	11/06/2020 14:00		36	12/06/2020 02:00	47	41	12/06/2020 14:00	48	43
10/06/2020 17:00	45	39	11/06/2020 02:13	39	33	11/06/2020 14:13	52	37	12/06/2020 02:30	48	42	12/06/2020 14:13		43
10/06/2020 17:15	43	39	11/06/2020 02:45	38	34	11/06/2020 14:45		48	12/06/2020 02:35	49	44	12/06/2020 14:45	49	45
10/06/2020 17:13	46	41	11/06/2020 03:00	43	37	11/06/2020 15:00	64	49	12/06/2020 03:00	50	46	12/06/2020 15:00		45
10/06/2020 17:45	42	38	11/06/2020 03:15	43	37	11/06/2020 15:15	63	50	12/06/2020 03:05	48	43	12/06/2020 15:15	49	44
10/06/2020 17:43	49	37	11/06/2020 03:30	38	35	11/06/2020 15:30	54	49	12/06/2020 03:30	47	42	12/06/2020 15:30		45
10/06/2020 18:15	49	37	11/06/2020 03:45	40	37	11/06/2020 15:45	57	51	12/06/2020 03:45	46	41	12/06/2020 15:45	47	43
10/06/2020 18:30	41	35	11/06/2020 03:43	44	39	11/06/2020 15:45	58	49	12/06/2020 03:43	48	44	12/06/2020 15:45		43
10/06/2020 18:45	47	33	11/06/2020 04:00	52	40	11/06/2020 16:00	59	53	12/06/2020 04:00	47	42	12/06/2020 16:00	49	45
10/06/2020 19:00	42	32	11/06/2020 04:30	52	40	11/06/2020 16:13		49	12/06/2020 04:13	48	44	12/06/2020 16:30		42
10/06/2020 19:15	41	37	11/06/2020 04:45	49	42	11/06/2020 16:30	53	49	12/06/2020 04:45	53	43	12/06/2020 16:30	49	41
10/06/2020 19:30	41	34	11/06/2020 05:00	49		11/06/2020 17:00	53	47	12/06/2020 04:43	46	40	12/06/2020 17:00		42
10/06/2020 19:45	41	33		47	42 43			47		46	39		55	42
10/06/2020 19:45		34	11/06/2020 05:15 11/06/2020 05:30			11/06/2020 17:15 11/06/2020 17:30	51	45	12/06/2020 05:15 12/06/2020 05:30		39	12/06/2020 17:15 12/06/2020 17:30		
	43 43	33	11/06/2020 05:30	46 55	41 44		47	43		44 46	41	12/06/2020 17:30	61	44
10/06/2020 20:15 10/06/2020 20:30	56	37	11/06/2020 05:45	49	44	11/06/2020 17:45 11/06/2020 18:00		43	12/06/2020 05:45 12/06/2020 06:00	46	43	12/06/2020 17:45		38
10/06/2020 20:45	54	35	11/06/2020 06:00	50	46	11/06/2020 18:00		43	12/06/2020 06:05	49	43	12/06/2020 18:00	62	36
10/06/2020 20:45	49	33	11/06/2020 06:13	51	46	11/06/2020 18:15		38	12/06/2020 06:15	49	43	12/06/2020 18:15		38
10/06/2020 21:15	49	33	11/06/2020 06:45	50	46	11/06/2020 18:45		49	12/06/2020 06:45	46		12/06/2020 18:45	49	
10/06/2020 21:15	44	35	11/06/2020 06:45	53	46	11/06/2020 18:45	54	50	12/06/2020 06:45	46	41	12/06/2020 18:45		35
						<u> </u>					41			34
10/06/2020 21:45 10/06/2020 22:00	43	35 36	11/06/2020 07:15 11/06/2020 07:30	52	48	11/06/2020 19:15 11/06/2020 19:30	52 E1	48	12/06/2020 07:15 12/06/2020 07:30	49	44	12/06/2020 19:15 12/06/2020 19:30	43	36
10/06/2020 22:00	45 43	36	11/06/2020 07:45	51 54	47 49	11/06/2020 19:30	51 53	45 48		49 49	43	12/06/2020 19:30	46 44	37
		36		53	49		53	48	12/06/2020 07:45	50	43 45			35 34
10/06/2020 22:30	41	38	11/06/2020 08:00 11/06/2020 08:15	53	48	11/06/2020 20:00		46	12/06/2020 08:00	50	45	12/06/2020 20:00 12/06/2020 20:15	41	
10/06/2020 22:45	43	38				11/06/2020 20:15	51		12/06/2020 08:15					35
			11/06/2020 08:30	53	47	11/06/2020 20:30		48	12/06/2020 08:30		46	12/06/2020 20:30		34
			11/06/2020 08:45	53	48	11/06/2020 20:45		44	12/06/2020 08:45	53	49	12/06/2020 20:45		30
			11/06/2020 09:00	52	47	11/06/2020 21:00		45	12/06/2020 09:00		50	12/06/2020 21:00		31
			11/06/2020 09:15	54	49	11/06/2020 21:15		48	12/06/2020 09:15		49	12/06/2020 21:15		31
			11/06/2020 09:30	55	50	11/06/2020 21:30		44	12/06/2020 09:30		51	12/06/2020 21:30		31
			11/06/2020 09:45	52	48	11/06/2020 21:45		42	12/06/2020 09:45	58	51	12/06/2020 21:45		29
			11/06/2020 10:00	52	45	11/06/2020 22:00		45	12/06/2020 10:00		51	12/06/2020 22:00		28
			11/06/2020 10:15	50	45	11/06/2020 22:15		41	12/06/2020 10:15		49	12/06/2020 22:15		27
			11/06/2020 10:30	47	43	11/06/2020 22:30		38	12/06/2020 10:30		49	12/06/2020 22:30		28
			11/06/2020 10:45	47	43	11/06/2020 22:45	44	39	12/06/2020 10:45	50	46	12/06/2020 22:45	28	27

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 21/33

Sat					Sun							Mon		
MP1004					MP100	;						MP1006		
Start	LAeq	LAF90.0	Start	LAeq I	AF90 Start	L	Aeq LAF	F90.0	Start	LAeq I	LAF90.0	Start	LAeq	LAF90.0
12/06/2020 23:00	30	28	13/06/2020 11:00	56	40 13/06/	2020 23:00	29	27	14/06/2020 11:15	40	33	14/06/2020 23:00	28	26
12/06/2020 23:15	33	30	13/06/2020 11:15	58	40 13/06/2	2020 23:15	28	26	14/06/2020 11:30	41	34	14/06/2020 23:15	26	24
12/06/2020 23:30	32	28	13/06/2020 11:30	47	38 13/06/3	2020 23:30	30	26	14/06/2020 11:45	43	35	14/06/2020 23:30	31	24
12/06/2020 23:45	30	28	13/06/2020 11:45	46	39 13/06/	2020 23:45	29	26	14/06/2020 12:00	42	34	14/06/2020 23:45	28	25
13/06/2020 00:00	28	26	13/06/2020 12:00	46	41 14/06/2	2020 00:00	27	26	14/06/2020 12:15	41	35	15/06/2020 00:00	27	24
13/06/2020 00:15	30	27	13/06/2020 12:15	49	41 14/06/2	2020 00:15	27	26	14/06/2020 12:30	40	35	15/06/2020 00:15	24	23
13/06/2020 00:30	33	30	13/06/2020 12:30	52	42 14/06/2	2020 00:30	27	26	14/06/2020 12:45	43	34	15/06/2020 00:30	24	23
13/06/2020 00:45	35	32	13/06/2020 12:45	50	44 14/06/2	2020 00:45	26	25	14/06/2020 13:00	43	34	15/06/2020 00:45	24	23
13/06/2020 01:00	36	34	13/06/2020 13:00	51	46 14/06/	2020 01:00	26	25	14/06/2020 13:15	45	33	15/06/2020 01:00	24	23
13/06/2020 01:15	40	37	13/06/2020 13:15	51	45 14/06/	2020 01:15	26	25	14/06/2020 13:30	39		15/06/2020 01:15	23	23
13/06/2020 01:30	38		13/06/2020 13:30	53	47 14/06/		26	26	14/06/2020 13:45	42		15/06/2020 01:30	24	23
13/06/2020 01:45	36		13/06/2020 13:45	54	45 14/06/		28		14/06/2020 14:00	38		15/06/2020 01:45	24	23
13/06/2020 02:00	34		13/06/2020 14:00	52	46 14/06/		34		14/06/2020 14:15	44		15/06/2020 02:00		23
13/06/2020 02:15	32		13/06/2020 14:15	55	44 14/06/		32		14/06/2020 14:30	43		15/06/2020 02:15	24	23
13/06/2020 02:30	30		13/06/2020 14:30	47	42 14/06/		31		14/06/2020 14:45	39		15/06/2020 02:30	23	23
13/06/2020 02:45	38		13/06/2020 14:45	48	41 14/06/		28		14/06/2020 15:00	43		15/06/2020 02:45	24	23
13/06/2020 03:00	39		13/06/2020 15:00	50	40 14/06/2		27		14/06/2020 15:15	41		15/06/2020 03:00	24	23
13/06/2020 03:15	39		13/06/2020 15:15	45	40 14/06/2		28		14/06/2020 15:30	41		15/06/2020 03:15	24	23
13/06/2020 03:30	39		13/06/2020 15:30	43	37 14/06/		29		14/06/2020 15:45	37		15/06/2020 03:30	24	23
13/06/2020 03:45	40		13/06/2020 15:45	45	40 14/06/		29		14/06/2020 16:00	41		15/06/2020 03:45	24	23
13/06/2020 04:00	39		13/06/2020 15:45	44	41 14/06/		39		14/06/2020 16:15	47		15/06/2020 04:00	41	24
13/06/2020 04:15	46		13/06/2020 16:15	54	44 14/06/		43		14/06/2020 16:30	42		15/06/2020 04:05	42	35
13/06/2020 04:13	45		13/06/2020 16:30	46	37 14/06/		45		14/06/2020 16:45	43		15/06/2020 04:30	46	36
13/06/2020 04:45	48		13/06/2020 16:45	43	35 14/06/		43		14/06/2020 17:00	45		15/06/2020 04:45		35
13/06/2020 05:00	51		13/06/2020 17:00	47	37 14/06/2		65		14/06/2020 17:15	41		15/06/2020 05:00		35
13/06/2020 05:15	52		13/06/2020 17:15	44	36 14/06/		48		14/06/2020 17:30	52		15/06/2020 05:15		35
13/06/2020 05:30			13/06/2020 17:30	50	40 14/06/		45		14/06/2020 17:45	51		15/06/2020 05:30	45	35
13/06/2020 05:45	46		13/06/2020 17:45	50	41 14/06/2		46		14/06/2020 17:43	44		15/06/2020 05:45	43	34
	43													35
13/06/2020 06:00	43		13/06/2020 18:00	57 42	36 14/06/3		43		14/06/2020 18:15	46		15/06/2020 06:00	58	38
13/06/2020 06:15	49		13/06/2020 18:15		34 14/06/2		42		14/06/2020 18:30	42		15/06/2020 06:15	48	37
13/06/2020 06:30	45		13/06/2020 18:30	53	36 14/06/2		44		14/06/2020 18:45	40		15/06/2020 06:30	45	
13/06/2020 06:45	45		13/06/2020 18:45	45	35 14/06/		41		14/06/2020 19:00	42		15/06/2020 06:45		36
13/06/2020 07:00	48		13/06/2020 19:00	42	37 14/06/		44		14/06/2020 19:15	40		15/06/2020 07:00		36
13/06/2020 07:15	45		13/06/2020 19:15	44	36 14/06/3		46		14/06/2020 19:30	39		15/06/2020 07:15	42	33
13/06/2020 07:30	48		13/06/2020 19:30	42	35 14/06/		44		14/06/2020 19:45	42		15/06/2020 07:30	43	33
13/06/2020 07:45	48		13/06/2020 19:45	41	35 14/06/		41	_	14/06/2020 20:00	42		15/06/2020 07:45		34
13/06/2020 08:00	50		13/06/2020 20:00	42	34 14/06/		45		14/06/2020 20:15	43		15/06/2020 08:00	46	32
13/06/2020 08:15	52		13/06/2020 20:15	45	35 14/06/		43		14/06/2020 20:30	47		15/06/2020 08:15	53	33
13/06/2020 08:30	48		13/06/2020 20:30	43	33 14/06/		45		14/06/2020 20:45	36		15/06/2020 08:30		31
13/06/2020 08:45	49		13/06/2020 20:45	45	32 14/06/		42		14/06/2020 21:00	39		15/06/2020 08:45	44	34
13/06/2020 09:00	54		13/06/2020 21:00	44	29 14/06/		45	_	14/06/2020 21:15	41		15/06/2020 09:00		35
13/06/2020 09:15	55		13/06/2020 21:15	39	30 14/06/		42		14/06/2020 21:30	39		15/06/2020 09:15	46	32
13/06/2020 09:30	52		13/06/2020 21:30	39	34 14/06/		41		14/06/2020 21:45	41		15/06/2020 09:30	43	32
13/06/2020 09:45	49		13/06/2020 21:45	35	31 14/06/		45		14/06/2020 22:00	40		15/06/2020 09:45	44	35
13/06/2020 10:00	50		13/06/2020 22:00	33	29 14/06/		43		14/06/2020 22:15	27		15/06/2020 10:00	39	31
13/06/2020 10:15	51		13/06/2020 22:15	29	26 14/06/		46		14/06/2020 22:30	28		15/06/2020 10:15	41	33
13/06/2020 10:30	46	42	13/06/2020 22:30	31	27 14/06/		47		14/06/2020 22:45	29		15/06/2020 10:30		33
13/06/2020 10:45	45	40	13/06/2020 22:45	33	26 14/06/		40	35				15/06/2020 10:45	39	32
					14/06/	2020 11:00	43	32				15/06/2020 11:00	40	33
												15/06/2020 11:15	41	32
												15/06/2020 11:30	50	33

Bredy Farm Music Events			
Noise Management Plan	CH/NMP/2020/15		
Report	18/03/2021	Page	22/33

Appendix B: Noise Measurement Record Table & Procedures

Location	Start Time	Duration	Music A Weighted SPL	Music C Weighted SPL	Observations / Actions / Include weather conditions
MP1 – Graston House/Graston Farm					
MP2 – Graston Holiday Park					
MP3 Graston Holiday Park					
MP4 – Cogdon Farm					
MP5 – Modbury Farm					

Measurement Procedure Note

During each hour of the event, noise monitoring will be undertaken from at least two of the designated monitoring locations and will be those most affected by the prevailing downwind conditions, where this is a determinant factor. Monitoring will be undertaken using a Mastech MS6708 sound level meter (or equivalent type 2 Sound level meter) and a minimum 5 minute measurement undertaken at the location using A & C Weighted SPL(S) metric. These metrics will be visually assessed over the period to determine the typical underlying decibel level and a written record will be included within the measurement log. Monitoring will also be undertaken during the post 23.45 period after live music has finished in order to ensure that any background music remains indiscernible above the prevailing ambient noise conditions. Operators have received training in the use of the equipment by the supplier, further training will be provided as necessary by TSA.

Aural observations will be made for each monitoring record and indicate how audible the music is in relation to the prevailing ambient noise conditions, as well as other sound which is contributing to the noise measurement such as distant traffic noise, agricultural machinery, wind in trees etc

Example descriptors may include the following and coded 1-4 within the measurement log.

- 1. Music is clearly audible and dominates the acoustic environment. Most components of the music noise are clearly audible, the bass rhythm is clear and distinct, lyrics are audible and intelligible.
- 2. Music is audible but does not the dominant acoustic environment. Elements of the music noise are distinguishable; specific lyrics are not intelligible, the bass rhythm may be the most apparent/distinguishable characteristic of the noise. Music noise would be masked by normal speech or internal leisure activity noise levels.

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 23/33

- **3.** Music noise is just discernible /audible. Concentration is required to distinguish the music noise over the prevailing background noise.
- **4.** Music noise inaudible.

In the event of music noise from the venue being above the proposed limit or if deemed to be causing significant disturbance, the venue manager will be contacted and an intervention sound reduction made at the FOH position and noise monitoring continued at the specified location until the music noise has been reduced to an acceptable level.

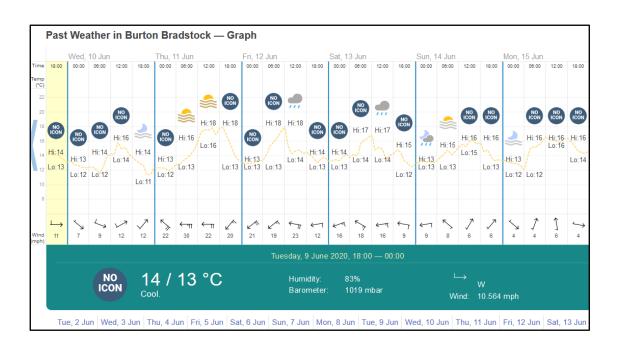
Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page

Appendix C: Comment/Complaint Form

Bredy Farm Events	Noise Complaint/Comment
Date and Time Complaint Received	
Name of Complainant	
Address of Complainant	
Telephone number and email of complainant	
Location of noise disturbance (address & postcode if different from complainant address)	
Time disturbance noted	
Nature of complaint(Vocal, Bass, Music in General- Inside or outside)	
Additional Comment / Weather data	
Visit Requested Yes/No	
Action Taken	

Bredy Farm Music Events			
Noise Management Plan	CH/NMP/2020/15		
Report	18/03/2021	Page	25/ 33

Appendix D: Meteorological Data



							Show weather	for: 10 June 2020	
	Condition			Comfort					
Time 00:00		Temp	VVeather	VVInd		Humidity	Barometer	Visibility	
Wed, 10 Ju		13 °C	Cool.	6 mph	7	76%	1019 mbar	30 km	
01:00	NO	13 °C	C00I.	8 mph	×	80%	1019 mbar	45 km	
02:00	NO	13 °C	Cool.	9 mph	^	79%	1019 mbar	50 km	
03:00	NO	13 °C	C00I.	8 mph	×	81%	1018 mbar	50 km	
04:00	NO	12 °C	C00I.	8 mph	`	81%	1018 mbar	50 km	
05:00	NO	12 °C	Cool.	7 mph	-	79%	1018 mbar	45 km	
06:00	NO	12 °C	Cool.	8 mph	~	81%	1017 mbar	50 km	
07:00	NO	12 °C	Cool.	8 mph	-	84%	1017 mbar	50 km	
08:00	NO	12 °C	C00I.	12 mph	^	86%	1017 mbar	50 km	
09:00	NO	12 °C	Cool.	9 mph	~	84%	1017 mbar	35 km	
10:00	NO	12 °C	C00I.	9 mph	-	82%	1016 mbar	40 km	
11:00	NO	14 °C	Cool.	9 mph	-	79%	1016 mbar	40 km	
12:00	NO	14 °C	Cool.	10 mph	-	76%	1016 mbar	25 km	
13:00	NO	14 °C	C00I.	13 mph	-	75%	1015 mbar	35 km	
14:00	NO	16 °C	C00I.	12 mph	-	72%	1015 mbar	50 km	
15:00	NO	15 °C	C00I.	12 mph	-	71%	1014 mbar	40 km	
16:00	NO	15 °C	Cool.	14 mph	_	73%	1014 mbar	21 km	
17:00	NO	14 °C	C00I.	14 mph	-	77%	1013 mbar	30 km	
18:00	NO	14 °C	Cool.	13 mph	/	79%	1013 mbar	28 km	
19:00	NO	13 °C	C00I.	9 mph	1	83%	1012 mbar	45 km	
20:00	NO	13 °C	Cool.	9 mph	1	88%	1012 mbar	35 km	
21:00	NO	13 °C	Cool.	12 mph	1	88%	1011 mbar	20 km	
22:00	NO	11 °C	Cool.	13 mph	1	96%	1011 mbar	9 km	
23:00		11 °C	Smoke.	15 mph	t	94%	1011 mbar	6 km	

Bredy Farm Music Events	
Noise Management Plan	CH/NMP/2020/15
Report	18/03/2021

					1			Show weather for:	11 June 2020	
Time		Condition	Temp	Weather	Comfort		Humidity	Barometer	Visibility	
	0:00	NO ICON	12 °C	Cool.	14 mph	t	92%	1010 mbar	35 km	
	1:00	NO ICON	12 °C	Cool.	16 mph		90%	1010 mbar	30 km	
	2:00	NO ICON	12 °C	Cool.	20 mph	_	84%	1009 mbar	30 km	
0	8:00	HO I	12 °C	Cool.	24 mph	_	91%	1008 mbar	25 km	
	4:00	NO ICON	12 °C	Cool.	26 mph	_	90%	1008 mbar	25 km	
	6:00	NO ION	12 °C	Cool.	28 mph	~	92%	1007 mbar	30 km	
0	8:00	NO ICON	13 °C	Cool.	30 mph	-	89%	1007 mbar	30 km	
0	7:00	HO ICOM	13 °C	Cool.	32 mph	-	86%	1008 mbar	35 km	
	8:00	NG ICON	13 °C	Cool.	31 mph	~	83%	1008 mbar	30 km	
0	9:00	NG ICON	14 °C	Cool.	32 mph	~	82%	1008 mbar	23 km	
1	0:00	NG ICON	14 °C	Cool.	30 mph	~	80%	1008 mbar	15 km	
1	1:00	<u>\$</u>	15 °C	Smoke.	28 mph	-	84%	1008 mbar	8 km	
1	2:00	\$	16 °C	Smoke.	26 mph	~	76%	1009 mbar	7 km	
1	8:00	<u></u>	17 °C	Smoke.	23 mph	~	79%	1009 mbar	7 km	
1	4:00	<u>\$</u>	18 °C	Smoke.	20 mph	-	76%	1009 mbar	6 km	
1	6:00	\$	18 °C	Smoke.	25 mph	-	76%	1008 mbar	7 km	
1	8:00	NG ICON	18 °C	Mid.	18 mph	-	78%	1008 mbar	11 km	
1	7:00	NG ICON	17 °C	Mid.	23 mph	-	77%	1008 mbar	19 km	
1	8:00	NG ICON	18 °C	Mild.	17 mph	-	75%	1008 mbar	26 km	
1	9:00	NG ICON	18 °C	Mid.	16 mph	1	71%	1008 mbar	35 km	
2	0:00	NG ICOM	17 °C	Cool.	20 mph	1	75%	1008 mbar	29 km	
2	1:00	NO ICON	16 °C	Cool.	23 mph	1	77%	1008 mbar	40 km	
2	2:00	NG ICOM	14 °C	Cool.	22 mph	1	79%	1008 mbar	40 km	
2	8:00	NG ICON	14 °C	Cool.	21 mph	1	81%	1008 mbar	40 km	

Bredy Farm Music Events	
Noise Management Plan	CH/NMP/2020/15
Report	18/03/2021

							Show weather for:	12 June 2020
	Condition			Comfort				
Ime		Temp	VVeather	VVInd		Humidity	Barometer	Visibility
00: Frl, 12 J		13 °C	Cool.	20 mph	1	82%	1008 mbar	50 km
01:	00 NO	13 °C	Cool.	23 mph	1	84%	1007 mbar	50 km
02:	00 ICCN	13 °C	Cool.	23 mph	1	86%	1006 mbar	50 km
03:	00 ICCN	13 °C	Cool.	21 mph	/	87%	1006 mbar	35 km
04:	00 ICON	13 °C	Cool.	23 mph	/	87%	1005 mbar	50 km
05:	00 NO	13 °C	C00I.	20 mph	/	88%	1005 mbar	26 km
06:	00 NO	13 °C	Cool.	18 mph	/	87%	1005 mbar	19 km
07:	00 NO	14 °C	Cool.	15 mph	1	86%	1004 mbar	17 km
08:	00 ICCN	15 °C	Cool.	18 mph	1	81%	1003 mbar	18 km
09:	00 ICCN	16 °C	Cool.	20 mph	1	78%	1003 mbar	16 km
10:	00 NO	16 °C	Cool.	18 mph	/	75%	1002 mbar	19 km
11:	00 NO	17 °C	Mild.	21 mph	-	73%	1002 mbar	19 km
12:	00 NO	18 °C	Mild.	21 mph	-	72%	1001 mbar	20 km
13:	00 🦟	15 °C	Light rain. Cloudy.	25 mph	-	88%	1001 mbar	3 km
14:	00 ///	14 °C	Rain. Cloudy.	24 mph	-	96%	1000 mbar	5 km
15:	00 NO	15 °C	Cool.	25 mph	-	96%	1000 mbar	10 km
16:	00 NO	15 °C	Cool.	28 mph	-	95%	1000 mbar	16 km
17:	00 🧁	14 °C	Rain showers. Cloudy.	26 mph	-	97%	1000 mbar	8 km
18:	00 NO	14 °C	Cool.	12 mph	`	97%	1001 mbar	25 km
20:	00 NO	14 °C	Cool.	9 mph	-	91%	1002 mbar	40 km
21:	00 NO	13 °C	Cool.	12 mph	-	95%	1003 mbar	22 km
22:	00 NO	14 °C	Cool.	14 mph	-	95%	1003 mbar	30 km
23:	00 RO	14 °C	Cool.	14 mph	_	95%	1004 mbar	40 km

Bredy Farm Music Events	
Noise Management Plan	CH/NMP/2020/15
Report	18/03/2021

								Show weather for	13 June 2020
		Conditions			Comfort				
Time	00:00		Temp	VVeather	VVInd		Humidity	Barometer	Visibility
	8at, 18 Jun	ICON	13 °C	Cool.	12 mph	_	95%	1003 mbar	40 km
	01:00	NO	13 °C	Cool.	12 mph	-	96%	1003 mbar	45 km
	02:00	NO	13 °C	Cool.	15 mph	-	94%	1003 mbar	30 km
	03:00	NO	13 °C	C00I.	15 mph	-	93%	1003 mbar	29 km
	04:00	NO	14 °C	Cool.	18 mph	-	94%	1003 mbar	24 km
	05:00	NO	14 °C	Cool.	16 mph	-	89%	1003 mbar	35 km
	06:00	NO	14 °C	Cool.	20 mph	-	89%	1004 mbar	23 km
	07:00	NO	14 °C	Cool.	17 mph	_	84%	1004 mbar	29 km
	08:00	NO	14 °C	Cool.	20 mph	`	84%	1005 mbar	35 km
	09:00	NO	16 °C	Cool.	17 mph	_	82%	1006 mbar	30 km
	10:00	NO	16 °C	Cool.	18 mph	_	85%	1006 mbar	17 km
	11:00	NO	16 °C	Cool.	16 mph	_	82%	1007 mbar	29 km
	12:00	NO	17 °C	Cool.	18 mph	_	80%	1007 mbar	21 km
	13:00	NO	15 °C	Cool.	21 mph	-	85%	1007 mbar	29 km
	14:00	NO	15 °C	Cool.	18 mph	_	84%	1007 mbar	30 km
	15:00	NO	15 °C	Cool.	17 mph	_	85%	1008 mbar	14 km
	16:00		14 °C	Light rain. Cloudy.	16 mph	-	95%	1008 mbar	12 km
	17:00	NO	14 °C	Cool.	13 mph	-	95%	1008 mbar	19 km
	18:00	NO	14 °C	Cool.	12 mph	-	95%	1008 mbar	13 km
	19:00	NO	15 °C	Cool.	14 mph	-	94%	1008 mbar	30 km
	20:00	NO	14 °C	Cool.	10 mph	-	93%	1008 mbar	24 km
	21:00	NO	13 °C	C00I.	5 mph	`	94%	1009 mbar	15 km
	22:00	NO	13 °C	Cool.	8 mph	t	97%	1010 mbar	19 km
		NO		Cool.		,			

Bredy Farm Music Events	
Noise Management Plan	CH/NMP/2020/15
Report	18/03/2021

							Show weather for:	14 June 2020
	Conditions			Comfort				
Time		Temp	VVeather	VVInd		Humidity	Barometer	Visibility
00:00 8un, 14 Jun	ICON	13 °C	Cool.	12 mph	-	98%	1011 mbar	22 km
01:00	NO	13 °C	Cool.	8 mph	_	98%	1011 mbar	17 km
02:00	ICON	13 °C	Cool.	9 mph	-	98%	1011 mbar	18 km
03:00	*	13 °C	Rain showers. Overcast.	9 mph	-	98%	1011 mbar	15 km
04:00	NO	13 °C	Cool.	12 mph	-	98%	1011 mbar	15 km
05:00	NO	13 °C	Cool.	9 mph	-	98%	1011 mbar	7 km
06:00	NO	13 °C	Cool.	8 mph	-	98%	1011 mbar	28 km
07:00		14 °C	Fog.	9 mph	~	99%	1011 mbar	9 km
08:00		14 °C	Fog.	8 mph	^	99%	1012 mbar	8 km
09:00	ICON	15 °C	Cool.	7 mph	`	99%	1012 mbar	12 km
10:00	\$	14 °C	Fog.	9 mph	1	98%	1013 mbar	5 km
11:00	NO	14 °C	Cool.	7 mph	t	98%	1014 mbar	14 km
12:00	NO	15 °C	Cool.	8 mph	t	94%	1014 mbar	25 km
13:00	NO	16 °C	Cool.	7 mph	1	87%	1014 mbar	19 km
14:00	NO	15 °C	Cool.	7 mph	1	86%	1015 mbar	23 km
15:00	NO	16 °C	Cool.	6 mph	/	82%	1015 mbar	35 km
16:00	NO	16 °C	Cool.	6 mph	-	85%	1014 mbar	45 km
17:00	NO	16 °C	Cool.	5 mph	1	83%	1015 mbar	40 km
18:00	NO	16 °C	Cool.	6 mph	`	85%	1015 mbar	35 km
19:00	NO	14 °C	Cool.	6 mph	1	89%	1015 mbar	30 km
20:00	NO	15 °C	Cool.	6 mph	1	89%	1016 mbar	25 km
21:00	NO	14 °C	Cool.	5 mph	t	94%	1016 mbar	21 km
22:00	NO	13 °C	Cool.	6 mph	/	95%	1016 mbar	15 km
23:00	NO	13 °C	Cool.	7 mph	1	96%	1016 mbar	15 km

Appendix C: Glossary of Terms

'A' weighting (dB(A)): A frequency dependent correction which weights sound to correlate with the sensitivity of the human ear to sounds of different frequencies.

Ambient Noise: A measure of the typical noise (excluding any unusual events) present at a site, or in a room. This is usually described in terms of *L*Aeq,T.

Audible: Sound that can be heard or is perceptible by the human ear.

Background Noise: A measure of the underlying noise (excluding any unusual events) which is present at a site before a new noise source is introduced. This is usually described in terms of the LA90 level: the sound pressure level exceeded for 90% of the time.

Decibel (dB): A unit used for many acoustic quantities to indicate the level of sound with respect to a reference level.

External Amenity Space: An outdoor area near to a residential building which is designed and intended primarily for leisure and recreational use by the occupants of the dwelling. This will include gardens, patios, balconies, roof gardens and terraces.

Hertz: The tonal quality of a sound is described and measured in terms of the frequency content and is commonly expressed as octave or third octave bands, the latter being the division of the octave bands into three for finer analysis, across the frequency spectrum. The smaller the octave band or third octave band centre frequency number defined in terms of Hz, the lower the sound. For example 63 Hz is lower than 500 Hz and is perceived as a deeper sound. The attenuation due to air absorption and natural barriers increases with frequency i.e. low frequencies are always the most difficult to control

Inaudible: Sound that cannot be heard or is imperceptible to the human ear.

LA90,T: Sound pressure level exceeded for 90% of the measurement period "T" or 'background level'.

LAeq,T: Equivalent continuous sound pressure level measured over the time period "T"

LAmax: The maximum RMS A weighted sound pressure level

Music Noise Level (MNL): The Leq of music noise measured at a particular location.

Noise: Unwanted sound.

Noise assessment: A basic evaluation of an acoustic environment by a suitably qualified person to assist in the determination of a planning application..

Noise impact: the noise level of the source under consideration, and/or any change in noise levels due to the scheme, and/or the relationship between the noise level of the source under consideration and a descriptor of the existing noise climate; at a receptor or group of receptors.

Noise effect: the consequence of the noise impact e.g. annoyance, sleep disturbance, speech interference, disruption of learning/teaching, health consequences, fauna displacement etc. Noise

Bredy Farm Music Events		
Noise Management Plan	CH/NMP/2020/15	
Report	18/03/2021	Page 32/33

impact and noise effect are related to each other and the noise effect is related to the magnitude of the noise impact as well as other factors e.g. sensitivity of the receptor, duration of the noise, how frequently it occurs, the time of day or night it occurs, whether the noise is temporary, reversible or permanent etc.

Noise level (Lp): the logarithmic measure of the RMS sound pressure of a sound relative to a reference value that represents the threshold of hearing. It is measured in decibels (dB) e.g. Lp = 20 lg (p/po) dB re 20 μ Pa for air.

Noise sensitive premises / developments: Principally comprising residential premises, hospitals, schools and hotels. Other premises and sites may be deemed to be noise sensitive depending upon circumstances.

Typical sound pressure levels

