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**ACOUSTIC MONITORING PLAN AND
NOISE MANAGEMENT PLAN**

FUTURE MUSIC FESTIVAL 2014

SAT 8 MARCH 2014

RANDWICK RACECOURSE

COMMISSIONED BY

FUTURE MUSIC GROUP PTY LTD

222 YORK STREET, SOUTH MELBOURNE 3205

Prepared by:

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Member Australian Acoustics Society
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Ref 1668
18 Oct 2013

Acoustic Monitoring & Noise Management for Future Music Festival, Randwick 2014

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Summary

Noise Consulting & Management Pty Ltd has been engaged to analyse and prepare recommendations and controls regarding the control of music noise from the proposed Future Music Festival to be held at Randwick Racecourse on Sat 8 March 2014.

This noise management plan contains the abatement measures that will ensure Future Music Festival adheres to the applicable noise limits and causes minimal disturbance in residential areas.

It should be noted that stage music levels will have to be controlled at approximately Leq 95 dB(A) and Leq 110 dB(C).

There were 2 noise complaints that were received and investigated at the 2013 event. The additional measures that have been adopted since 2012 event, including an improved complaints hotline, remote sound level monitoring system and sophisticated music limiters, have been recommended to help address noise related problems.

There are no further practicable engineered noise controls that can be applied to an event this size at this venue, so management controls that effectively limit the music level must be relied upon to ensure the noise limit is adhered to.

General Information

Event Details

The proposed festival will be held on Saturday 8 March 2014 between noon and 10:00pm. It is estimated that up to 50,000 people will attend. There may be brief rehearsals or line checks intermittently between 10:00am and noon on the day of the event.

The stage layout of the infield will be similar to 2013 and utilise the infield for the three main stages. Two of these stages will face north, the other stage faces west and is in a marquee. The main Future stage will have a delayed speaker system. There will be a marquee stage north of the infield walkway.

Smaller stages will be located at the northeast and southwest end of the grandstand facing southeast on the infield walkway facing northeast (x2) and in the infield at the end of the marquee stage. The stage closest to Doncaster Avenue will be in a marquee this year. There will be an additional stage near Doncaster Ave and Alison Road.

There will also be sponsors stages with low-level music and a small sound system.

A 10EaZy Type 1 sound level system will be installed on the main stages. This system continually monitors remotely in real time the music level at the sound desks. It displays the music level, the music limit and the sound level reduction required were displayed above the sound console at each stage at all times. The data is available in real time via the internet.

The stage layout is shown on the map in Appendix A.

The nearest residences to the outdoor stages are in:

- Doncaster Avenue - 330m west of the main stages and 80m west of smaller marquee stage 5
- Kings Street – 210m north of the small Grandstand stage
- Alison Road - 330m north of the main marquee stages and
- Wansey Road - 380m east of main marquee stage.

Applicable Regulations and Proposed Noise Limits

For open-air concert venues with EPA prevention notices, a limit of L_{Amax} 70 dB(A) and L_{max} 90 dB(C) applies for concerts over 5,000 people, except for Centennial Park, which has a limit of L_{Amax} 65 dB(A) and L_{max} 85 dB(C).

It is proposed that an achievable limit of L_{Amax} 70 dB(A) and L_{max} 90 dB(C) is adopted, when measured with the meter set to fast response over any 15-minute period during the festival or sound test. An exceedance of no more than 5 dB during a 5 minute period in the first 15 minutes of each new act is also proposed. This is the same as last year.

To minimise the impact of noise on nearby residences during the event, stringent noise abatement measures will be applied. These are explained in further detail within this report.

Design Mitigation Measures and Prediction of the Noise Expected from the Proposed Festival

Music will play at levels upto Leq 110 dB(A) if uncontrolled when measured 5m from the speakers. Controlled levels of Leq 95-100 dB(A) have been found to be adequate for patrons.

Compression and limiting will be required at all times on all sound systems to avoid uncontrolled high maximum levels.

Main Infield Stage – Future Stage 1

This outdoor stage is in a similar location as last year and will play predominantly music mixed by DJ's and a few band acts. The stage will operate from 12 noon until 10:00pm. Three high shipping containers will be required to the south, west and east.

The stage will face north at the south end of the racecourse with a small delay speaker stack (or series of delays) behind the sound desk. Distance to the northern residents (Alison Road & King St) and shipping containers to the east (Wansey Rd) and west (Doncaster Ave) provide adequate noise reduction in residential areas.

The top of the speaker arrays should be hung below the height of the top of the shipping containers.

Music at this stage will be able to play at approximately 95 dB(A), 111 dB(C) and still achieve the proposed limits.

Main Infield Stage – The Likes of You Stage 3

This outdoor stage is inside a marquee. Music mixed by DJ's will play from 12 noon until 10:00pm.

It is recommended that the speakers be faced towards the northwest, pointing at the grandstand. This will avoid facing speakers directly at the closest residents to the north or west and the Grandstand will provide shielding to the closest residents to the northwest (Doncaster Ave).

It is recommended the main array speakers be set as low as possible and a small delay speaker stack (or series of delays) behind the sound desk.

Music at this stage will be able to play at approximately 95 dB(A) , 111 dB(C) and still achieve the proposed limits.

Main Infield Stage – Stage 2

This outdoor stage is in a similar location as last year. Music mixed by DJ's will play from 12 noon until 10:00pm.

It is recommended that the speakers be faced towards the northwest, pointing at the grandstand. This will avoid facing speakers directly at the closest residents to the north or west and the Grandstand will provide shielding to the closest residents to the northwest (Doncaster Ave). Three high shipping containers will be required to the south, west and east. The top of the speakers must be below the top of the shipping containers.

Music at this stage will be able to play at approximately 95 dB(A), 110 dB(C) and still achieve proposed limits. This is a lower music level than the other stages.

Rear of Grandstand – Stage 4

This is a new stage for 2014, 150m east of Doncaster Ave north dwellings. There is building structures between the stage and the nearest dwellings.

Music at this stage may be able to play at approximately 95 dB(A), 110 dB(C) and achieve proposed limits.

North Walkway Stage –Stage 6

This stage is on the northern infield walkway, 230m and facing away from the northern King Street dwellings. Tent walls on the rear and halfway down each side will be installed on the marquee.

Music at this stage may be able to play at approximately 95 dB(A), 110 dB(C) and achieve proposed limits.

North Walkway Stage –Stage 8

This outdoor stage is a small foam pit stage with a low power sound system. Music at this stage may be able to play at approximately 93 dB(A), 107 dB(C) and achieve proposed limits.

South Walkway Stage –Stage 7

This outdoor stage is in the same location as last year, facing away from and using buildings to protect the nearest residents. Music at this stage may be able to play at approximately 95 dB(A), 110 dB(C) and achieve proposed limits.

North Grandstand Stage –Stage 9

This small outdoor stage faces southwest, away from the nearest residents. Music at this stage may be able to play at approximately 95 dB(A), 110 dB(C) and achieve proposed limits.

South Grandstand Stage –Stage 5

This outdoor stage faces southeast, away from the Doncaster Road residents, 80m to the west. Three high shipping containers will be required behind and to the southwest side of this stage. Music at this stage may be able to play at approximately 90 dB(A), 105 dB(C) and achieve proposed limits.

Predicted Noise Levels at Dwellings

Based on last year's measurements and combining the contribution of music from all the 2013 stage positions at the stated level, the noise levels predicted are:

- Doncaster Ave (rear of Ascot Street) residences of L_{Amax} 68 dB(A) and L_{max} 88 dB(C)
- Doncaster Ave (rear of Darling Street) of L_{Amax} 65 dB(A) and L_{max} 85 dB(C)
- Alison Road and King Street of L_{Amax} 67 dB(A) and L_{max} 87 dB(C)
- Wansey Road residences of L_{Amax} 62dB(A) and L_{max} 82 dB(C)

The recommended music levels will provide just acceptable music levels for patrons at the festival at most areas, while maintaining complying noise levels for residents. These predictions are for neutral or calm noise propagating conditions. Under certain light to moderate wind conditions, it is possible that these levels may increase by 3 dB for the closer Doncaster Avenue and Alison Road residents and 6 dB for the residents further away. In this case, the music levels will need to be reduced correspondingly.

As the sound system will be capable of producing levels far higher than this (and the music from the 2013 event was louder than the above levels), the following '**Noise Abatement Measures**' should be adhered to in order to ensure that the noise limits are achieved and to minimise the impact of noise on nearby residences.

Acoustic Monitoring Plan and Noise Abatement Measures

The following measures will be implemented:

- **Contractual arrangements with artists and sound system suppliers advising them of the predicted music levels on their stage and imposing significant financial penalties if the limit is breached.** This is vital as the levels were exceeded last year and this is a control that relies on effective management.
- A formal warning system/method to ensure that penalties will apply to acts if a noise breach warning is not acted upon within the specified time.
- The promoter will provide a dedicated member of staff to control the music levels on the stages. This staff member will have the automatic authority and technical ability to reduce the music levels at the desk for all acts where required.
- The noise limit at affected residences will be L_{Amax} 70 dB(A) and L_{max} 90 dB(C), when measured with the meter set to fast response over any 15 minute period during the concert or sound test. All music will cease at 10:00pm
- A central complaints hotline will be established for the duration of the event. Complaints on the Racecourse number should be diverted to the event hotline. A 1800 number was used effectively last year. The following procedure will be adopted by hotline staff:

PROCEDURE FOR RECORDING AND ACTIONING NOISE COMPLAINTS

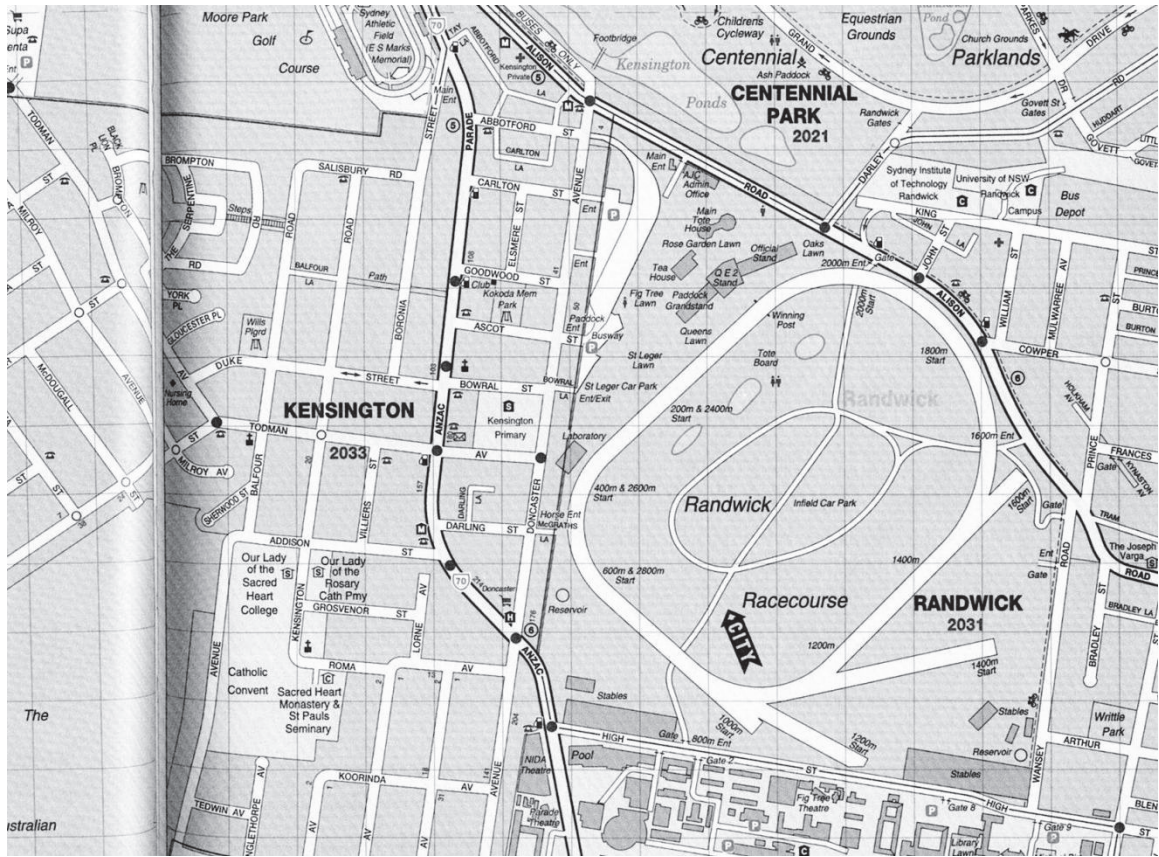
1. Hotline will record name, address, number and nature of complaint

2. Complaint details will be forwarded by phone call or radio to noise monitoring staff
 3. At the property, the monitoring person will record measurements, and discuss levels with resident if requested
 4. Noise monitoring staff will radio the Production Manager to reduce sound level as appropriate
 5. Noise monitoring staff will radio Hotline with the monitoring results and actions taken
 6. Hotline will record results and actions against complaint
- A notice informing nearby residents/apartment body corporates of the event and the hotline number will be sent out at least 4 days prior to the event. A copy of the notice will be forwarded to Council. The area to be letter dropped has been increased since 2010 and is shown in Appendix A. This includes the areas that the music is likely to be the dominant noise source and additional areas in Kensington based on previous complaints.
 - The speakers of the outdoor stages will be set up as outlined above.
 - A sound check will be performed prior to the event. During the sound check, appropriate music levels will be set on compressors at each of the stages to ensure they are started at appropriate levels.
 - It is recommended that the APEX noise limiters and 10EaZy remote display loggers be used on all main stages. Sound level meters indicating the actual and allowed music levels will be displayed at each stage and sound system engineers will be required to monitor and maintain advised music levels. The sound system suppliers will be advised in writing of this requirement prior to the event.
 - All sound systems will include a level limiter (or compressor) so music levels can be locked down. Artists and sound engineers will be advised that music limiting will be used and settings are not to be tampered with. The sound system suppliers will be advised in writing of this requirement prior to the event.
 - Noise Consulting & Management Pty Ltd will continuously monitor throughout the entire event, the pre-determined noise sensitive locations and any additional locations that may become necessary based on the conditions and any complaints encountered. Two acoustic consultants will be required to provide effective monitoring and complaint investigation.
 - The acoustic consultants will be in two way radio and mobile phone contact with the sound desk staff, production manager, sound engineers, event organiser, and hotline staff throughout the event.

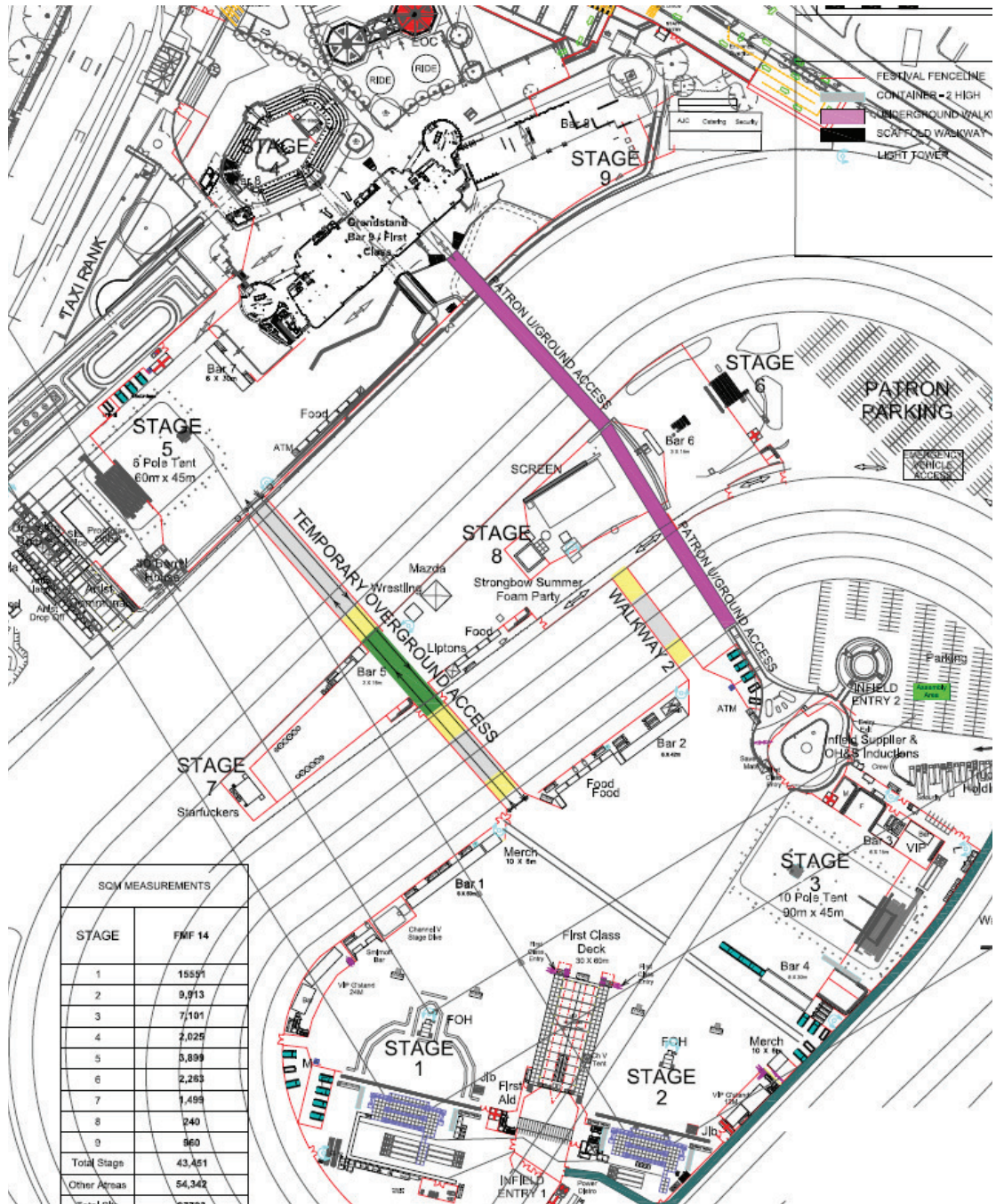
- The production manager and sound engineers will be briefed on the importance of reducing music levels as requested by the acoustic consultant.
- Procedures will be implemented to allow for a quick reduction of the music levels of all stages if required. The production manager will ensure that sound engineers reduce music levels when instructed. The main stage sound desk will be manned by staff under the direct supervision of the acoustical consultant.
- A report containing the results of the monitoring, any complaints and the noise control measures will be presented to Council within 30 days of the event.
- Security guards will assist patrons in leaving quietly and avoiding passing through the nearby residential areas where possible. Security guards will be stationed in the residential areas to ensure noise is kept to a minimum.

To ensure the event is operated in a responsible manner, Future Music Festival has made a commitment to abide by this Noise Management Plan.

Appendix A Map of area showing letter drop area



Site plan showing stage layout.



Appendix B Results of 2013 Event Monitoring

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NOISE IMPACT ASSESSMENT

FUTURE MUSIC FESTIVAL 2013

RANDWICK RACECOURSE

SYDNEY, NSW

SAT 9 MARCH 2013

COMMISSIONED BY

FUTURE EVENTS PTY LTD

222 YORK STREET, SOUTH MELBOURNE, VIC 3205

Prepared by:

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Acoustical Consultant

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Acoustic Consultant

Noise Consulting & Management Pty Ltd

Ref 1591
24 March 2013

Acoustic Monitoring & Noise Management for Future Music Festival, Randwick 2014

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Summary

An outdoor music festival was held on Sat 9 March 2013 at Randwick Racecourse, Randwick between 12:00 and 22:22. The weather conditions on the day were overcast with a mild ENE breeze typically less than 3m/s.

Noise Consulting & Management was contracted by Future Events Pty Ltd to monitor, control and report on noise levels in the vicinity for the duration of the event.

The event exceeded the 22:00 time limit by approximately 22 minutes.

The event generally complied with the Consent conditions for noise limits and the permitted 5 dB exceedance at all times and all locations measured.

The Consent permits an exceedance of no more than 5 dB during a 5 minute period in the first 15 minutes of each new act.

The $L_{A_{Max}}$ noise limit was exceeded once at Wansey Street between 21:00 and 21:15. The cause of this exceedance was due to Stage three and requests to reduce the noise levels were sent through to production immediately following the noise measurement at this time. The $L_{C_{Max}}$ noise limit was exceeded six times between 18:00 and 19:45, and two times between 21:00 and 21:30. These exceedances were no more than 5 dB as allowed within a 5 minute period in the first 15 minutes of each new act.

The event exceeded the $L_{C_{Max}}$ noise limit by 7dB at 22:00.

There were 2 noise complaints that were received and investigated. All complaints were investigated and measurements show that the event complied with the noise limits at these locations.

Immediately following an exceedance the venue promoters were notified of the exceedance by SMS.

It is vital that artists be contracted to play at the specified desk level to ensure that the external noise limit is achieved.

General Information

Measurements were performed near the closest affected dwellings in each direction from the event and at the site of complaints.

If the noise levels approached the A weighted noise limits, the APEX limiters on stages 1 and 3 or maximum threshold and compression settings on other stage amplifiers would reduce the music level automatically. If the C weighted limits were approached, type 1, 10EaZy remote display sound level meters on the stages could help identify which stage was likely to be causing the increase and the sound engineer of that stage could be contacted to adjust the music level.

In general, 5 minutes of music noise was measured. However, this was not possible in Alison Road due to the almost continuous traffic noise that was louder than the noise limits.

Measurement locations were taken within 3m of the boundary of the affected properties, usually on the driveway crossover or lanes to avoid reflections off any fences.

The measurement locations were determined to be representative of the most affected dwellings in each direction. In addition to the above, measurements were also taken at the site of reported complaints.

Personnel Present:

Andrew Rogers
Matthew Fishburn
Noise Consulting & Management

Jason Ayoubi
Brett Robinson
Future Events Pty Ltd

Instrumentation:

Svan 955 Type 1 precision octave band sound and vibration analyser Serial No. 23045.

Bruel & Kjaer Type 1 precision octave band sound and vibration analyser Serial No. 245 9227.

A field calibration is performed before and after the analyser is used. Full calibration traceable to the national standard is completed annually for all instrumentation.

Approximately 50,000 patrons attended the event.

Results

Noise Limits

The noise limits specified by the permit at affected buildings are given below:

Time	Location	Noise Limit, L_{Amax} dB(A)	Noise Limit, L_{Cmax} dB(C)
10:00-22:00	All	70	90

The Consent permits an exceedance the above limits of no more than 5 dB during a 5 minute period in the first 15 minutes of each new act.

Noise Levels

In general the noise levels were between L_{Amax} 60-69 dB and L_{Cmax} 82-89 dB at the closest and most affected dwellings in Alison Road, Wansey Road and Doncaster Avenue.

However between 18:00 and 20:00 the noise levels at the nearest and most affected residences were exceeding the L_{Cmax} noise limit by between 1 and 4 dB(C). Although this exceedance of no more than 5 dB during a 5 minute period in the first 15 minutes of each new act is allowed, the promoters were notified of the exceedances when they were measured and reductions in the noise levels were made.

During the final act a noise exceedance of 7dB(C) was recorded at the corner of Wansey Street and Alison Road at 22:00. This was due to the closest stage (stage 3) to this location.

Noise level measurements and observations were taken throughout the event. Results are given in Appendix A.

Logged noise levels at the main stages have been archived.

Complaints

Two complaints were received along Cottenham Avenue (number 3 and number 7) and measurements at these locations shortly after the complaint was received showed that the noise levels at these locations were complying with the noise limits.

Recommendations

Given the size of the stages, the type of music and the music levels that can be achieved at the sound desk, it is recommended that the APEX noise limiters and 10EaZy remote display loggers be used in future on all main stages. As automatic limiting is disliked by the artists, they should be informed prior to the event that limiters will be utilised.

Conclusion

The music festival held at Randwick Racecourse on Sat 9 March 2013 generally complied with the consent conditions relating to noise except for one instance. Two

noise complaints were logged and the noise levels measured at these locations were shown as complying with the noise limits

However, the event went approximately 22 minutes over time and one measurement was 7 dB(C) above the noise limit.

Appendix A – Summary of Noise Measurements

Address	Notes	Start Time	Finish Time	L _{Aeq} , Max. 5min	L _{Cen} , Max. 5min	Complaint
158 Doncaster Ave	some traffic noise	12:30	12:45	67	87	
29 Wansey Street		12:45	13:00	58	84	
5 Wansey street		13:00	13:15	61	86	
90 Alison Road	some traffic noise	13:15	13:30	67	84	
168 Doncaster Ave		14:30	14:45	63	85	
5 Wansey street		14:45	15:00	63	83	
150 Doncaster Ave		15:00	15:15	66	82	
90 Alison Road	can hear beat	16:15	16:30	69	87	
3 Cottenham Ave	Just audible	16:15	16:25	57	72	
11 Wansey Street		16:30	16:45	60	90	
148 Doncaster Ave		16:45	17:00	69	85	
11 Wansey Street		17:00	17:15	58	85	
148 Doncaster Ave		17:15	17:30	67	88	
11 Wansey Street		17:30	17:45	66	87	
90 Alison Road	sms sent requesting noise reduction	18:00	18:05	67	91	
90 Alison Road	sms sent requesting noise reduction	18:05	18:15	67	94	
98 Doncaster Ave	sms sent requesting noise reduction	18:15	18:30	69	91	
98 Doncaster Ave	sms sent requesting noise reduction	19:00	19:15	65	91	
15 Wansey Street		19:15	19:30	65	85	
90 Alison Road	sms sent requesting noise reduction	19:30	19:45	66	94	
Corner Prince & Holkam		19:45	20:00	56	76	
90 Alison Road		20:00	20:15	65	90	
98 Doncaster Ave		20:15	20:30	64	88	
3 Cottenham Avenue	measure on footpath	20:30	20:45	59	78	Complaint
5 Wansey street		20:45	21:00	63	84	
90 Alison Road		21:00	21:10	64	90	
5 Wansey street	21:00 Levels over caused by stage 3 and stage manager and promoters notified requesting noise reduction, 21:15 Stage 2 also causing exceedance, promoters notified to reduce noise levels	21:10	21:15	73	95	
3 Cottenham Avenue	measure on back deck of house	21:45	21:50	65	82	re-measure
7 Cottenham Avenue	measure on footpath	21:50	21:51	59	71	Complaint
Cnr Alison & Wansey	requested noise reduction	22:00	22:02	68	97	
	event finishes at 22:22					



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NOISE MANAGEMENT PLAN

GOODLIFE FESTIVAL 2013

SUN 9 MARCH 2014

RANDWICK RACECOURSE

COMMISSIONED BY

FUTURE EVENTS PTY LTD

222 YORK STREET, SOUTH MELBOURNE 3205

Prepared by:

Andrew Rogers B App Sci
Member Australian Acoustics Society
Acoustic Consultant
Noise Consulting & Management Pty Ltd

Ref 1646
27 Aug 2013

Summary

Noise Consulting & Management Pty Ltd has been engaged to analyse and prepare recommendations and controls regarding the control of music noise from the proposed Goodlife Festival to be held at Randwick Racecourse on Sunday 9 March 2014.

This noise management plan contains the abatement measures that will ensure Goodlife Festival adheres to the applicable noise limits and causes minimal disturbance in residential areas.

It should be noted that stage music levels will have to be controlled at approximately Leq 95 dB(A) and Leq 110 dB(C).

Management controls that effectively limit the music level must be relied upon to ensure the noise limit is adhered to.

General Information

Event Details

The proposed festival will be held on Sunday 9 March 2014 between 13:00 and 20:00. It is estimated that up to 20,000 people will attend. There may be brief rehearsals or line checks intermittently from noon onwards on the day of the event.

The main stage layout of the infield will be similar to the 2013 event and utilise the infield for the two main stages. These stages will face north, will have a delayed speaker system. There will be two smaller stages, one facing west in a marquee and one facing southwest on the walkway. All stages are in the infield area, although the walkway stage is in a different position for 2014.

The stage layout is shown on the map in Appendix A.

The nearest residences to the outdoor stages are in:

- Doncaster Avenue - 330m west of the main stages
- Kings Street – 500m north of the main stage. 300m north of the smaller stage
- Alison Road - 500m north of the main stage. 300m north of the smaller stage
- Wansey Road – 500m east of main stage.

Applicable Regulations and Proposed Noise Limits

For open-air concert venues with EPA prevention notices, a limit of L_{Amax} 70 dB(A) and L_{max} 90 dB(C) applies for concerts over 5,000 people, except for Centennial Park, which has a limit of L_{Amax} 65 dB(A) and L_{max} 85 dB(C).

It is proposed that an achievable limit of L_{Amax} 70 dB(A) and L_{max} 90 dB(C) is adopted, when measured with the meter set to fast response over any 15-minute period during the festival or sound test. An exceedance of no more than 5 dB during a 5 minute period in the first 15 minutes of each new act is also proposed. This is the same as previous events at this venue.

To minimise the impact of noise on nearby residences during the event, stringent noise abatement measures will be applied. These are explained in further detail within this report.

Prediction of the Noise Expected from the Proposed Festival

Music will play at levels upto Leq 110 dB(A) if uncontrolled when measured 5m from the speakers. Controlled levels of Leq 95-100 dB(A) have been found to be adequate for patrons.

Compression and limiting will be required at all times on all sound systems to avoid uncontrolled high maximum levels.

Main Infield Stage –Stage 1

This outdoor stage will play predominantly music mixed by DJ's and a few band acts. The stage will operate from 1:00pm until 8:00pm. Two high shipping containers will be required to the west and east.

The stage will face north at the south end of the racecourse with a small delay speaker stack (or series of delays) behind the sound desk. Distance to the northern residents (Alison Road & King St) and shipping containers to the east (Wansey Rd) and west (Doncaster Ave) provide adequate noise reduction in residential areas.

The top of the speaker arrays should be hung below the height of the top of the shipping containers.

Music at this stage will be able to play at approximately 95 dB(A), 111 dB(C) and still achieve the proposed limits.

Main Infield Stage – Stage 2

Music mixed by DJ's will play from 1:00pm until 8:00pm.

It is recommended that the speakers be faced towards the northwest, pointing at the grandstand. This will avoid facing speakers directly at the closest residents to the north or west and the Grandstand will provide shielding to the closest residents to the northwest (Doncaster Ave). Two high shipping containers will be required to the west and east. The top of the speakers must be below the top of the shipping containers.

It is recommended the main array speakers be set as low as possible and a small delay speaker stack (or series of delays) behind the sound desk.

Music at this stage will be able to play at approximately 95 dB(A), 110 dB(C) and still achieve proposed limits.

Infield Stage –Stage 3

This stage is in a marquee. It is recommended that the speakers be faced towards the northwest, pointing at the grandstand. This will avoid facing speakers directly at the closest residents to the north or west and the Grandstand will provide shielding to the closest residents to the northwest (Doncaster Ave).

It is recommended the main array speakers be set as low as possible and a small delay speaker stack (or series of delays) behind the sound desk.

Music at this stage will be able to play at approximately 95 dB(A) , 111 dB(C) and still achieve the proposed limits.

Infield Stage –Stage 4

This stage is facing south west towards the university.

Music at this stage may be able to play at approximately 95 dB(A), 110 dB(C) and achieve proposed limits.

Noise Levels

Based on measurements of festivals at this venue and the modelling for 2013 Future Music Festival, the noise levels predicted are:

- Doncaster Ave (rear of Ascot Street) residences of LAmax 67 dB(A) and Lmax 87 dB(C)
- Doncaster Ave (rear of Darling Street) of LAmax 66 dB(A) and Lmax 86 dB(C)
- Alison Road and King Street of LAmax 70 dB(A) and Lmax 90 dB(C)
- Wansey Road residences of LAmax 64dB(A) and Lmax 84 dB(C)

Note that it is likely that the noise levels will be lower than this. Modelling of this event has not been performed. These results are based on the modelling for Future Music Festival 2013, which uses the same main stage layout but has 4 additional stages.

The recommended music levels will provide just acceptable music levels for patrons at the festival at most areas, while maintaining complying noise levels for residents. These predictions are for neutral or calm noise propagating conditions. Under certain light to moderate wind conditions, it is possible that these levels may increase by 3 dB for the closer Doncaster Avenue and Alison Road residents and 6 dB for the residents further away. In this case, the music levels will need to be reduced correspondingly.

As the sound system will be capable of producing levels far higher than this, the following '**Noise Abatement Measures**' should be adhered to in order to ensure that the noise limits are achieved and to minimise the impact of noise on nearby residences.

Noise Abatement Measures

The following measures will be implemented:

- **Contractual arrangements with artists and sound system suppliers advising them of the predicted music levels on their stage and imposing significant financial penalties if the limit is breached.**
- A formal warning system/method to ensure that penalties will apply to acts if a noise breach warning is not acted upon within the specified time.
- The promoter will provide a dedicated member of staff to control the music levels on the stages. This staff member will have the automatic authority and technical ability to reduce the music levels at the desk for all acts where required.

- The noise limit at affected residences will be L_{Amax} 70 dB(A) and L_{max} 90 dB(C), when measured with the meter set to fast response over any 15 minute period during the concert or sound test. All music will cease at 8:00pm
- A central complaints hotline will be established for the duration of the event. Complaints on the Racecourse number should be diverted to the event hotline. A 1800 number was used effectively at previous events at this venue. The following procedure will be adopted by hotline staff:

PROCEDURE FOR RECORDING AND ACTIONING NOISE COMPLAINTS

1. Hotline will record name, address, number and nature of complaint
 2. Complaint details will be forwarded by phone call or radio to noise monitoring staff
 3. At the property, the monitoring person will record measurements, and discuss levels with resident if requested
 4. Noise monitoring staff will radio the Production Manager to reduce sound level as appropriate
 5. Noise monitoring staff will radio Hotline with the monitoring results and actions taken
 6. Hotline will record results and actions against complaint
- A notice informing nearby residents/apartment body corporates of the event and the hotline number will be sent out at least 4 days prior to the event. A copy of the notice will be forwarded to Council. The area to be letter dropped has been increased since 2010 and is shown in Appendix A. This includes the areas that the music is likely to be the dominant noise source and additional areas in Kensington based on previous complaints.
 - The speakers of the outdoor stages will be set up as outlined above.
 - A sound check will be performed prior to the event. During the sound check, appropriate music levels will be set on compressors at each of the stages to ensure they are started at appropriate levels.
 - It is recommended that the APEX noise limiters and 10EaZy remote display loggers be used on all main stages. Sound level meters indicating the actual and allowed music levels will be displayed at each stage and sound system engineers will be required to monitor and maintain advised music levels. The sound system suppliers will be advised in writing of this requirement prior to the event.
 - All sound systems will include a level limiter (or compressor) so music levels can be locked down. Artists and sound engineers will be advised

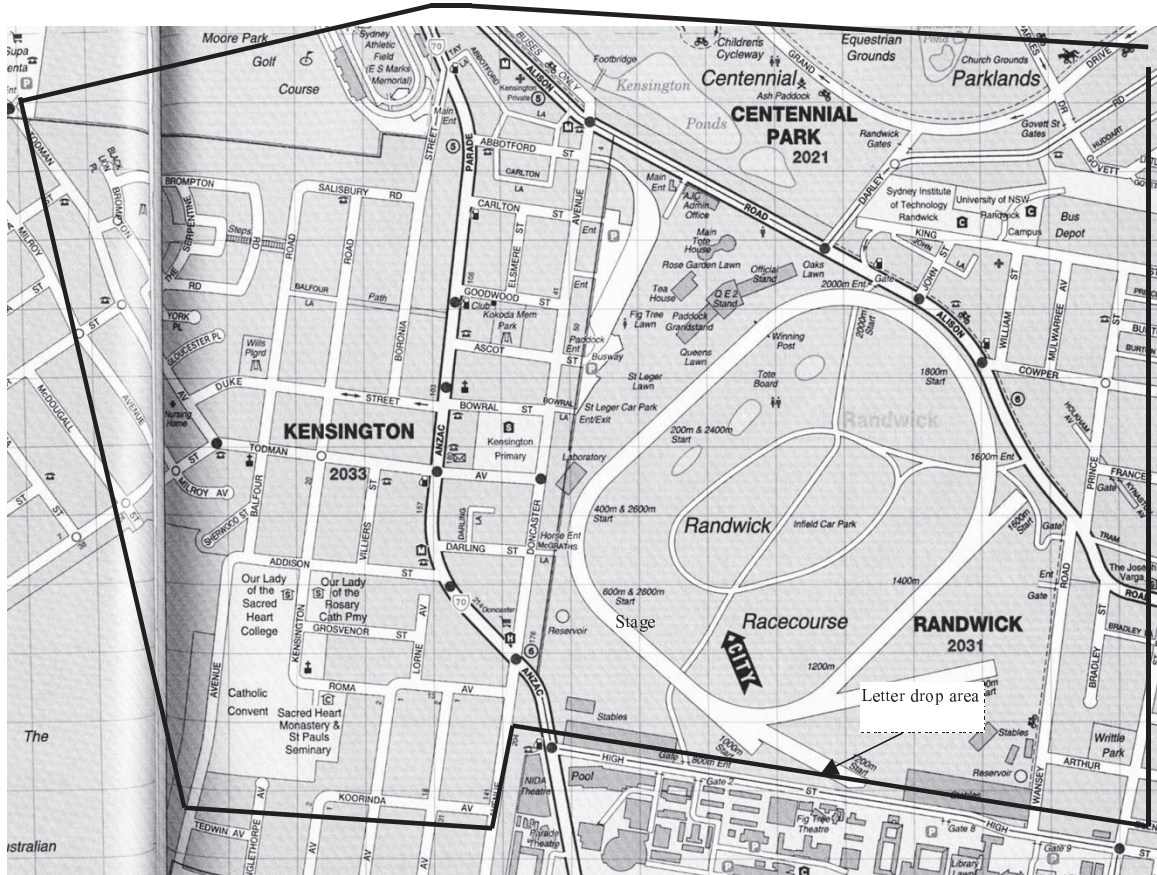
Noise Management Plan for Goodlife Festival, Randwick 2014

that music limiting will be used and settings are not to be tampered with. The sound system suppliers will be advised in writing of this requirement prior to the event.

- Noise Consulting & Management Pty Ltd will continuously monitor throughout the entire event, the pre-determined noise sensitive locations and any additional locations that may become necessary based on the conditions and any complaints encountered. Two acoustic consultants will be required to provide effective monitoring and complaint investigation.
- The acoustic consultants will be in two way radio and mobile phone contact with the sound desk staff, production manager, sound engineers, event organiser, and hotline staff throughout the event.
- The production manager and sound engineers will be briefed on the importance of reducing music levels as requested by the acoustic consultant.
- Procedures will be implemented to allow for a quick reduction of the music levels of all stages if required. The production manager will ensure that sound engineers reduce music levels when instructed. The main stage sound desk will be manned by staff under the direct supervision of the acoustical consultant.
- A report containing the results of the monitoring, any complaints and the noise control measures will be presented to Council within 30 days of the event.
- Security guards will assist patrons in leaving quietly and avoiding passing through the nearby residential areas where possible. Security guards will be stationed in the residential areas to ensure noise is kept to a minimum.

To ensure the event is operated in a responsible manner, Goodlife Festival has made a commitment to abide by this Noise Management Plan.

Appendix A Map of area showing letter drop area



Site plan showing stage layout.

