



# **Sidney Myer Music Bowl Noise Management Plan**

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## Document History

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3.0	13 April 2012	Glen Hirst	Update to ARUP plan
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## 1 Introduction

The Sidney Myer Music Bowl (SMMB) is operated by Arts Centre Melbourne and is used as a venue for a wide range of live outdoor events. Events tend to occur in a set season, during the summer months, between October – April.

These events usually use large specialist sound systems to provide amplified music. This music has the potential to break-out of the venue and cause disturbance at nearby noise sensitive receivers, including residences.

Music Noise from the venue is required to comply with section 166 of the Environment Protection Act 2017, as well as the Environment Protection Regulations 2021, which sets the 'standard operating hours', the duration of individual events and maximum 'average' noise levels that can be generated at Noise Sensitive areas.

This Noise Management Plan (NMP) is designed to assist Arts Centre Melbourne to manage noise from the SMMB and meet the requirements of the Environment Protection Regulations 2021. This NMP has been developed using data from previous Noise Abatement Plans (NAPs), noise measurements and management of past events, and detailed on-site sound-system testing.

This NMP specifies the practicable noise controls that shall be applied to all types of events held at the Bowl, and is to be used in consultation with acts and Presenters to clarify their responsibilities in respect to noise emission.

### 1.1 Site Description

The SMMB was built in 1959 and is located in the King's Domain adjacent to St. Kilda Road. The Bowl is used for outdoor events and can seat around 2000 people under cover, with a further 10,000 on the grassed berm. A control location is positioned at the rear of the seated area, and is connected to the back-of-house via an access and services tunnel.

Concessions areas are usually located at the southern end of the venue, and sides of the berm. The berm has a primary entry point located on the south-western corner.

A site and environs plan is shown in Figure 1.



Figure 1: SMMB site and environs plan.

## 2 Legislative Framework

In Victoria, music noise from public premises is regulated by the Environment Protection Authority Victoria (EPA) under the Environment Protection Act 2017 (the Act), and the Environment Protection Regulations 2021 (the Regulations)

Under section 166 of the Act a venue must not emit unreasonable noise or permit unreasonable noise to be emitted.

Under the Regulations music noise emitted from an outdoor entertainment venue or event is unreasonable if:

- the level of the music noise exceeds the noise limit that applies to that venue or event at the time the noise is emitted; or
- the music noise is audible within a noise sensitive area outside the 'standard operating hours'

The Regulations apply specifically to music noise generated from public venues, including outdoor venues such as the SMMB. The Regulations provides requirements for allowable music noise levels, duration of events, and the number of events that may occur in any financial year.

The specific requirements that apply to the SMMB are as follows:

- The noise limit for outdoor venues is 65 dB(A) when the measurement point is located outdoor
- The effective noise level for outdoor venues is the  $L_{Aeq}$  measured in dB(A).
- The measurement duration is 15 minutes.

Where the level of music noise exceeds the limit, the occupier (in the specific case of the SMMB this is Arts Centre Melbourne) is required to undertake steps to reduce noise levels to the limits.

With regards to the timing and number of events the Regulations state:

- Events may only take place between the hours of noon and 11pm and must not exceed 8 hours in duration
- No more than six (6) concerts may be conducted in any financial year unless a permit is obtained

Arts Centre Melbourne will apply a permit to operate more than six concerts in a financial year at the commencement of the season, based on the anticipated demand for concerts. In the past additional concerts have been readily granted by the EPA.

Non-compliance with the requirements of the Regulations may result in the issuance of a range of notices and/or fines by the EPA.

## 3 Noise Management Procedures

### 3.1 Residents Information

An up to date event schedule, and the Bowl complaints 'hotline' contact details shall be available from Arts Centre Melbourne's website:

<https://www.artscentremelbourne.com.au/visit/theatres-and-spaces/sidney-myer-music-bowl/information-for-residents>

This schedule will include:

- Name and date of the concert
- Presenter details
- Proposed commencement and finishing times of the concert, sound checks and rehearsals
- Contact details for the complaints hotline, and operating hours.
- Event Classification

At the commencement of each season ACM will provide a "letter drop" to nearby potentially impacted residents advising them of the upcoming season and the location residents page on ACMs website, which will continue to provide up to date information

### 3.2 Event Classification

The individual concerts and events in the schedule shall be classified by Arts Centre Melbourne as either 'red' or 'green', based on their potential to result in unreasonable noise

**Red Events** are events that have been categorised as *having potential to create noise up to 65 dB(A) at the nearest affected residents*. These events typically include electronic dance, festival and rock type concerts. Required actions for Red Events include:

- Independent noise monitoring and noise control by a qualified acoustic consultant (contracted by Arts Centre Melbourne) and detailed reporting for the entire event.
- Noise monitoring at pre-determined noise sensitive locations including the rooftop of the Melbournian Apartments, and any additional locations that may become necessary based on the ambient conditions and complaints encountered. 15-minute LAeq Music noise levels shall be monitored continuously throughout the event, if practical, or at least once per hour as a minimum.
- Investigation of noise related complaints by the independent acoustic consultant.
- Direct phone, radio or email contact between the acoustic consultant and the production manager/event coordinator, sound engineers, event organiser and the complaint hotline throughout the event.
- Implementation of procedures to allow for the timely reduction of music noise levels. The production manager/event coordinator shall ensure that sound engineers reduce music levels when instructed.
- Sound level testing prior to the event, where practicable.

- Limitations on ground stacked speakers for additional stages.

**Green Events** are events that have previously been measured to, or are expected to result in, noise levels less than 55 dB(A) at the nearest affected residents, or have a history of not generating noise complaints. These events typically include events such as Carols by Candlelight and Melbourne Symphony Orchestra concerts. Depending on latent weather conditions and wind direction, this would generally correspond to a noise level of approximately 90 dB(A) at the usual mixing desk location.

Actions for Green Events are as follows:

- Arts Centre Melbourne shall conduct sample self-monitoring and implement controls where breaches of 55 dBL<sub>Aeq</sub> at the nearest sensitive receiver are identified.
- Self-monitoring shall take place on at least two occasions during an event.
- The event shall be upgraded to a Red Event if music levels continue to exceed pre-determined limits (typically a music noise level of > 90 dBL<sub>Aeq,15min</sub> at the sound mixing location), and Red Event actions shall then be followed.

### **3.3 Contractual Responsibilities**

There is a complex hierarchy of responsibility between the venue, Presenter, sound supplier sound operator, and act that varies depending on the contractual arrangement between the act and the Presenter of the event.

Arts Centre Melbourne's responsibility to comply with the Regulations noise and time limits is transferred to the Presenter through the 'the venue hire contract – known as the Master Licence Agreement ("MLA")'. It must be understood that Arts Centre Melbourne reserves the right to withhold ticket receipts to cover the cost of fines and any other damages should there be any breach of the legislative requirements by Presenter who hire the venue.

As well as fines that may be issued by the EPA for non-compliance with the Regulations, Arts Centre Melbourne may suffer additional damages due to any Abatement Notices that may be issued to the venue.

The Presenter, the act, and the sound operator, shall demonstrate their awareness of the music noise and time limits in the legislation and the noise control procedures documented in this Noise Management Plan.

Arts Centre Melbourne requires Presenters to confirm their understanding of the noise and time limits, the accepted control procedures, and their responsibility to comply with the limits. To assist, the noise limits and specific requirements for hirers are provided in Appendix A of this NMP.



### 3.4 Sound System Design & Installation

The design and installation of sound systems installed into the venue is a key factor in minimising noise break-out from the venue, and potential noise impacts on the community.

Highly directional line-array sound systems are recommended for use within the SMMB to minimise noise spill, for example:

- L-Acoustics K-Series
- D&B Audiotechnik SL Series
- Meyer LEO
- Clair Brothers i-series

Presenters and their sound equipment hire providers are required to provide evidence that the sound system is designed and installed to minimise noise spill from the venue. In this respect, they are required to provide, in advance, a venue layout indicating the sound system type and orientation. All of the systems must be modeled with the appropriate array calculator software related to the equipment (eg. L-Acoustics *SoundVision*, d&b *ArrayCalc*) to demonstrate that the orientation and directivity characteristics of the array have been optimised to the SMMB's dimensions.

Modeling and on-site testing undertaken within the venue indicates that best opportunities to minimise noise spill to the environment are to be achieved through careful orientation of any delay arrays.

In particular, the best outcomes are achieved when the delay arrays are downward and inward oriented, and gain shaped as necessary to provide appropriate coverage on the grassed audience area *without* undue noise spill over the top of the berm. Delay arrays shall be flown as low as practicable to achieve an even coverage. Delay subs (particularly flown delay subs) are not to be used in any system.

Stage sound and foldback can sometimes cause issues with FOH sound levels, and in-ear foldback is encouraged at all times.

Where practicable, the Presenter and Arts Centre Melbourne's independent acoustic consultant shall undertake pre-concert sound checks to assist in setting appropriate noise levels within the venue.

Measurements undertaken on site have established that music noise levels should typically not exceed  $L_{Aeq}$  100 dB(A) at the mixing desk location in order to comply with the noise limits at the nearest sensitive receivers, depending on ambient weather conditions.

### 3.5 Noise Monitoring

Independent noise monitoring is to be undertaken for 'red' classified events in accordance with Section 3.2. As noted above, noise monitoring is usually undertaken on the rooftop at the most critical residential receiver, the Melbournian, 250 St. Kilda Road. Access to this measurement location is provided by the Melbournian Concierge, who provides the consultant with a master-key to the building. Other locations, including within the SMMB itself may be used, as required, to guide the noise management process.

Noise monitoring shall be undertaken with a Class 1 Precision Sound Level Meter capable of measuring the A- and C-weighted overall sound pressure level. The Sound Level Meter shall hold a current calibration certificate from a NATA certified laboratory, and be pre and post calibrated using a portable Sound Level Calibrator that is also within current NATA calibration.

The noise measurements shall be carried out in accordance with the requirements the *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues* i.e. music noise shall be measured as 15 minute A-weighted equivalent noise levels, LAeq,15min. Measurements shall be undertaken continuously at the primary measurement location, if practicable, or at least once an hour as a minimum.

The Presenter is responsible for providing the independent acoustic consultant with direct contact details (mobile phone, email) for their event managers and the sound operators and/or for the provision of site event radios. The consultant shall be provided with Access All Areas accreditation to all locations.

When noise level exceedances are measured, the acoustic consultant is to liaise *directly* with the sound operator. This type of arrangement is preferable, as it provides for the most direct level of control over the resultant noise levels.

It is noted that the independent acoustic consultant is responsible only for *advising* noise levels in relation to the established criteria, and that it is the sound operators' responsibility for *reducing noise levels* in accordance with the requirements of the Regulations, acting under the pre-agreed direction of the Presenter's representative.

The independent acoustic consultant will provide a post event close out report to Arts Centre Melbourne. This will be made available to the Presenter and EPA upon request.

Appendix A provides a formal and explicit agreement from the Presenter, act and sound operator that noise levels shall be reduced, as necessary, to comply with the requirements.

For information, the dB(C) noise level should also be measured to assist Arts Centre Melbourne in minimising disturbance and complaints in future.

### **3.6 Complaints Handling**

Arts Centre Melbourne shall maintain a complaints Hotline to receive and respond to noise complaints from the community. The hotline shall operate during all events.

A standard database shall be developed to ensure a consistent approach to recording complaints from the hotline, email or in person. This shall include

- Date and time of the complaint
- How the complaint was made (telephone, email, in person)
- Contact details
- Location of the complainant
- Event
- Nature of the complaint
- Details of any response or proposed follow up.

## Appendix A - Information for the Presenter and Sound Engineer

### A1 Summary Information for the Presenter and Sound Engineer

The Sidney Myer Music Bowl (SMMB) operates under strict noise control limits and legislation placed upon the venue and its operators by the Victorian Environmental Protection Authority (EPA).

This appendix outlines the requirements of the detailed Noise Management Plan (NMP) that has been prepared for the venue. The detailed NMP has been prepared to allow Arts Centre Melbourne and users of the SMMB to comply with their environmental obligations, minimise the potential for noise disturbance in the community, and allow the ongoing operation of the SMMB in a sustainable manner.

#### A1.1 Noise and Time Limits

Music noise from events at the SMMB must not exceed an 'average' noise level measured over 15 minutes of:

**65 dB(A) (LAeq,15min)**

outside any potentially affected receiver. This will generally restrict music noise levels to Leq 100 dB(A) at the mixing desk location.

The venue may only operate within the following times:

**12 Noon – 11pm**

**Maximum Duration of 8 hours**

#### A1.2 Other Requirements

The Presenter, act and sound system provider must:

- Read and understand the detailed Noise Management Plan for the SMMB.
- Design the event sound system to minimise noise spill to the environment, in particular by using highly directional sound systems designed to provide coverage of the required audience area only.
- Provide details of the sound system type and orientation, and noise modeling for the equipment proposed to be used, modeled with the appropriate array calculation software related to the equipment to demonstrate that the sound system minimises noise spill to the environment.
- Liaise with the Arts Centre Melbourne's Management and Arts Centre Melbourne's independent acoustic consultant.
- Provide Arts Centre Melbourne and independent acoustic consultant with direct contact details for the event manager, sound manager and mixing desk operators.
- Comply with directions from Arts Centre Melbourne and/or noise consultant to

reduce noise levels, where measured noise levels exceed the criteria and a reduction is necessary to come into compliance with the legislative requirements.

### **A1.3 Acknowledgement**

By signing the Master Licence Agreement, the Presenter acknowledges that they have read and understood the Noise Management Plan, and take responsibility for the Act and sound system provider to comply with the noise and time limits.

### **A1.4 Compliance**

Failure to comply with the requirements of the legislation may result in a substantial fine or damages. Arts Centre Melbourne reserves the right to withhold ticket receipts under the 'security bond' requirements in the venue hire contract to cover the cost of fines and other damages, should there be any breach of the legislative requirements by the *hirers* of the venue.

**For further information refer to the Sidney Myer Music Bowl Noise Management Plan.**