

ACOUSTIC TECHNICAL NOTE



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To:	Lambeth Events
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Subject:	Music Noise Monitoring and Management Audit (Draft)

1. INTRODUCTION

RBA Acoustics were commissioned to support Lambeth Events in relation to noise associated with the 5 days of the Brockwell Live 2026 music festivals in Brockwell Park, SW2 between the 29th May to 6th June 2026.

RBA's main role was to audit the noise monitoring and management systems and processes used by the Independent Acoustic Consultancy appointed by the event organiser¹, to determine if the noise limits applied to the event under the London Borough of Lambeth event noise policy and the Noise Management Plan (NMP) required by the premises licence were complied with.

RBA also undertook sample noise monitoring independent of the organiser's consultants as a cross-check to ensure data being reported was reliable.

RBA staff also visited locations from where noise complaints were received during the event by the community communication "hot lines" to determine whether the London Borough of Lambeth event noise policy and the premises licence requirements were complied with.

2. CRITERIA

The events in Brockwell Park are subject to music noise limits (MNLs) as prescribed in the LB Lambeth Event Policy, with the same MNLs adopted in the Noise Management Plan for the Brockwell live events required by the Premises Licence², of:

- 75 dBA Leq, 15 min - to control overall sound,
- And;
- 90 dBC Leq, 15 min - to provide a cap on how loud low frequency "bass" noise can be.

The above MNLs apply outside any noise sensitive premises under "free-field"³ conditions.

When monitoring for compliance with the above requirements typically several consecutive 1 minute measurements or a single 5 minute measurement is made to allow rapid adjustments in MNL to be requested

¹ A requirement of the premises licence and a typically arrangement for virtually every outdoor music festival in the UK.

² Similar limits apply at several other parks in London e.g. Victoria Park, Queen Elizabeth Park, Hyde Park and Gunnersbury Park.

³ "Free-field", in acoustics, is a situation in which sound is assessed with no or only minimal sound reflections from the vertical plane e.g. building facades or boundary walls or fences.

should these data indicate a risk that a measurement over a 15 minute period as stipulated in the NMP might exceed the limits.

The NMP for the events required by the premises licence included several fixed monitoring locations where noise levels would be monitored during each event by the acoustic consultants appointed by the event organisers (Electric Star). These locations are illustrative of where music noise levels were anticipated to be highest based on previous experience of events in the park, and noise modelling of the specific events; and are considered representative of the most impacted communities around the park. These locations are listed in the table below.

Table 1: Noise monitoring locations identified in the noise management plan

Location	MNL limit LAeq,15 min dB	MNL limit LCeq,15 min dB
MP1 – Meath Estate	75	90
MP2 – Rosedale Rd/Norwood Rd	75	90
MP3 – Brockwell Park Gardens	75	90
MP4 – Lido/Dulwich Rd	75	90
MP5 – Brockwell Park Row	75	90
MP6 – Brailsford Road	75	90

The above are residential locations near to the park, consequently they are likely to receive the highest MNLs from events in the park. These locations therefore become Critical Control Points (CCPs), because due to increased distance and screening by topography and buildings, the MNLs further from the event are normally lower than those at CCPs near to the event. Consequently, managing and monitoring sound from the events regarding the permitted MNL limits at the CCPs ensures levels elsewhere will normally be lower. This is what occurred at all the Brockwell Live events in 2026.

In between the large music festival type events a series of smaller community focussed events and activities took place. As in previous years the following noise limits applied to these events:

“As the midweek events are smaller in scale and scope they can successfully operate at reduced levels off site as fewer arenas will be used, the nature of much of the entertainment/activities means a lower audience/participant MNL is adequate, and attendance will be significantly less than for the large events. Consequently, we advise that the maximum Music Noise Levels (MNL) [off site] shall be no more than:

65 dB L(A)eq 15 minutes (free field) outside any noise sensitive premises.

And,

75 dB L(C)eq 15 minutes (free field) outside any noise sensitive premises.

In locations where the above levels are already exceeded e.g. by traffic noise, the noise from the event shall cause no more than a 3 decibel increase in the typical LAeq,15 min or LCeq,15 min (free field) outside any noise sensitive premises.”

The above levels are equivalent to a halving of loudness overall and a more than three times reduction in the loudness of low frequency “bass” sound compared to the large events. In practice the noise from the mid-week events was comfortably below the above limits.

3. EFFECTS OF WIND ON PROPAGATION OF NOISE

As in previous years wind direction had a significant influence on the propagation of music noise beyond the receptors closest to the park.

Wind speed and direction can influence the propagation of sound from outdoor music events. Wind closer to the ground can move more slowly than wind at greater heights because of obstacles on the surface, such as buildings, trees and hills etc. The difference in velocity can create a wind gradient with a rapid change in wind speed over a small difference in altitude, this results in refraction of the sound wave causing sound travelling downwind from a source to bend towards the ground, while the sound traveling upwind will bend upwards. Consequently, under these conditions compared to neutral wind conditions, a person downwind of a sound source can hear more sound, while a person standing upwind will hear less sound. The effect is not symmetrical with the upwind suppression of noise propagation being greater than any downwind increase. Consequently, the amount of noise from an outdoor event heard can vary, sometimes substantially, depending on whether the listener is up or down wind of the event. The effect of wind direction on noise propagation is minimal close to an event but strengthens as distances from the venue increases.

In addition, under a minority of weather and atmospheric conditions an “inversion” can occur where in a reverse of the normal situation as altitude increases the air temperature is warmer compared to at ground level and then returns to normal by rapidly cooling as altitude increases. This can produce a “trapped” layer of warm air that can cause parts of the sound waves emitted from an outdoor event that would normally not be heard at ground level to refract down to ground level. The radius of this curvature of the sound wave is normally at least a kilometre or so. This can mean people at a distance from an event who hear nothing or very little when there is no inversion condition, hear something or hear a little more when an inversion occurs.

Consequently, in urban and suburban areas controlling music noise levels at noise sensitive CCPs nearest to the event so they are below the licence requirements, also means the levels elsewhere normally comply with the licence requirements further from the event, even if weather and atmospheric conditions are influencing propagation, as the increased distance still means the levels are lower than at the CCPs closer to the event where the effects of weather on propagation are usually negligible to minor.

4. AUDIT FINDINGS

The Electric Star team undertaking the management of noise from the events performed well under the leadership of an experienced and effective senior acoustician.

The continuity of teams and staff working in noise management roles from previous years meant the accrued knowledge and experience of similar events in the park and the distribution of receptors in the locality was valuable to the overall noise management process. For example, the likely areas of most impact off-site and the probable most significant sources of impact on site were anticipated in advance and confirmed for priority scrutiny early once each event started.

Coordination and collaboration between the noise management team, the promoter and sound engineers was effective. Communications were rapid and any necessary proactive adjustments to levels on site were made promptly and with full effect.

Noise complaints relating to Brockwell Live events were received via a multi-topic complaints hotline. These were directly fed to the Electric Star and RBA teams at the same time, and in general it was the RBA team

which was the first responder (as the Electric Star team was engaged in monitoring on site and at the CCPs off site).

Between the 17th May to 5th June 2026 Lambeth events received 28 noise complaints on event day's and a further 12 noise complaints on non-event days.

In all cases noise monitoring was carried out in response to the complaint and where possible face to face or call back conversations took place. This direct contact with complainants was generally well received by residents.

Noise data were collected and a qualitative opinion formed, both of which were fed back via the WhatsApp group to the event and noise management staff on site and the complaints hotline staff. This allowed:

- A real time record of the response to be collected.
- The hotline staff to have immediate access to results if repeat complaints were made, or complaints arose from nearby areas.
- As necessary, assisting the Electric Star noise team to intervene to control noise at source via their on-site staff.

RBA and Electric Star staff also attended two 'noise' meetings on site during each event day, also attended by Brockwell Live and Lambeth Council staff. These were opportunities to discuss:

- Numbers and distribution of complaints and responses to them.
- On-site noise level management.
- Curfew times, which were often discussed with off-site residents and inquisitive pedestrians.

Throughout all events communication was maintained with the Electric Star team, and appropriate opportunities to apply noise control measures discussed.

Where requested, most complainants received a visit within an hour, often less, with noise data collected outside but near to their property.

Face to face conversations took place where callers wanted this to happen. In other cases, these conversations took place on the phone. The information provided included the following:

- The fact that events were licensed and a summary of noise limits in the licence.
- The results of the monitoring and the fact that the event was complying with licence conditions (which in all cases it was).
- A reminder of the number of events and the licenced and voluntary (earlier) curfew times.

As in previous year whilst RBA staff were offsite monitoring noise, there were multiple unsolicited positive conversations with passing interested residents. RBA staff were not approached to say how bad the noise was, but how good the events were, and how supporting as individuals they were about the use of Brockwell Park in this way, although the absence of the Lambeth Country Show this year was widely regretted.

The location of complaints was largely driven by wind direction, with areas downwind of the park on any day generating the most complaints. This reflects the broad trend discussed above for the spread of noise from the events to be suppressed upwind of the site and moderately increased down wind. Easterly winds on the first four days of events confirmed that the weather plays a significant role in determining offsite noise levels at receptors beyond those closest to the park. For example, complaints were not received from the Herne Hill area east of the park until the second day of the final Mighty Hoopla festival under westerly winds.

The number of noise complaints both overall and on average per day included a minority of repeat complaints by the same person or household.

Normally where a venue or event is subject to campaigns and objections covered in local, regional or national media, as was the case for Brockwell Live this year with an unsuccessful judicial review, there is a marked increase in the number of noise complaints compared to previous years. However, despite the high profile of the campaign and objections against Brockwell Live the number of complaints this year was similar to previous years.

Compliance with the licence noise limits at CCPs was 100%. Noise levels measured in response to complaints were all below the licence noise limits.

RBA noted that compared to previous events the removal and rearrangement of some of the smaller stages resulted in a reduction in music noise level at the Meath Estate on Dulwich Road (MP1) which historically has tended to be the most impacted location.

The widespread use of the cardioid Audioteknic D&B sound systems across the main stage and most other arenas made a difference compared to previous years by focusing the sound energy onsite more precisely and reducing impacts offsite, as designed. The greatest effect was on noise affecting the MP1 and MP4 monitoring locations which being to the rear of the main stage and a substantial supplementary arena benefitted from the reduced rejection of sound backwards from these stages. Similarly, the removal of the stage right distribution/delay hang of main stage PA helped reduce noise affecting these locations.

Compliance with the pre-agreed curfew times (slightly earlier than the licence requires) was good, apart from around about five minutes on Saturday 23 May. This over-run led to complaints between 22:30 and 22:35. Whilst this was an over run of the scheduled end time it was within the terminal hour authorised by the premises licence.

5. CONCLUSIONS

RBA was appointed by Lambeth Events to audit the management of noise by the independent acoustic consultancy appointed by the event organiser for the Brockwell Live run of events as required by the premises licence.

Noise monitoring and management by the independent acoustic consultancy appointed by the event organiser was effective and ensured that the music noise level limits derived from Lambeth event policy and imposed by the noise management plan required by the premises licence were not exceeded.

The distribution of noise complaints, as in previous years, reflected the prevailing wind direction on each day with most complaints coming from locations downwind of the park.

Numbers of noise complaints overall and on each day were comparable to previous years.



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