

Title of Report:	TECHNICAL GUIDANCE: PLANNING AND NOISE: ASSESSMENT OF NOISE FROM DOG KENNELING AND BOARDING ESTABLISHMENTS
Committee Report Submitted To:	ENVIRONMENTAL SERVICES COMMITTEE
Date of Meeting:	11th February 2020
For Decision or For Information	FOR DECISION

Linkage to Council Strategy (2019-23)	
Strategic Theme	Protecting and Enhancing our Environments and Assets
Outcome	To provide guidance to all stakeholders in the assessment of noise from the operation of dog kennelling and Boarding Establishments
Lead Officer	Head of Health & Built Environment

Budgetary Considerations	
Cost of Proposal	N/A
Included in Current Year Estimates	N/A
Capital/Revenue	N/A
Code	N/A
Staffing Costs	N/A

Screening Requirements	Required for new or revised Policies, Plans, Strategies or Service Delivery Proposals.		
Section 75 Screening	Screening Completed:	Yes/No N/A	Date:
	EQIA Required and Completed:	Yes/No N/A	Date:
Rural Needs Assessment (RNA)	Screening Completed	Yes/No N/A	Date:
	RNA Required and Completed:	Yes/No N/A	Date:
Data Protection Impact Assessment (DPIA)	Screening Completed:	Yes/No N/A	Date:
	DPIA Required and Completed:	Yes/No N/A	Date:

1.0 Purpose

The purpose of this report is to consider the adoption of technical guidance for all interested parties in respect of issues arising from the operation of proposed or established Dog Kennelling and Boarding establishments.

2.0 Background

- 2.1 The Environmental Health Department are internal advisors to the Planning Department with regard to applications proposing the development of dog kennels/boarding establishments.
- 2.2 A critical aspect of such development proposals is the consideration of noise emissions, and the potential for adverse impacts on amenity.
- 2.3 Noise emissions from such establishments are chiefly associated with dog vocalisations: barking, but may also include whining, howling and yelping. The potential for adverse impacts has been documented (EPA Victoria, 2008) with barking audible over extended distances and nuisance conditions at up to 500metres.
- 2.4 A UK noise attitude survey (1999-2000) conducted by the BRE, cites barking dogs as the fourth most common source of noise nuisance.
- 2.5 Noise is a material planning consideration as determined under the Strategic Planning Policy Statement (SPPS)
- 2.6 The Noise Policy Statement (NPS) for NI, (DOE, September 2014), stated aims are to:
- Avoid significant adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise. Entertainment noise is an example of neighbourhood noise.
 - Mitigate and minimise adverse impacts on health and quality of life from environmental, neighbour and neighbourhood noise.
 - Where possible, contribute to the improvement of health and quality of life through the effective management and control of environmental, neighbour and neighbourhood noise.
- 2.7 A role of the Environmental Health Department is to consider technical/noise impact assessment submissions and advise the Planning Department/Council as to whether the proposed development may be acceptable at the location, ensuring that the SIGNIFICANT impacts of noise are obviated and adverse impacts are addressed via adequate mitigation as per Noise Policy Statement.
- 2.8 At present there is an absence of specific guidance which defines a methodology to assess the impact of noise from dog kennelling/boarding establishments, which undermines due consideration and full demonstration of achievement of objectives under the Noise Policy Statement.

- 2.9 In the absence of a defined methodology there is lack of a clear, consistent and robust approach which exacerbates delays in the processing of consultation responses and threatens sustainable development objectives.
- 2.10 It is essential that proposed developments within this category do not cause adverse amenity impacts in order to fulfil policy objectives within the SPPS and the NPS NI.

3.0 Discussion

- 3.1 No agreed standard or noise assessment methodology currently exists specific to dealing with the prediction of noise impacts from dog kennelling/boarding establishments, this is due to the lack of UK specific guidance, the uncertainty surrounding the applicability of British Standard 4142: 2014 + A1 2019 to the assessment of dog barking noise, and the discrepancy surrounding applicability of World Health Organisation criteria to unsteady distinctive noise.
- 3.2 Such developments create challenging and often contentious consultation work due to the highly characterful nature of dog barking noise. Barking is designed to attract attention, it is highly distinguishable against background. Barking is deemed unpredictable and intermittent, consisting of short bursts which last seconds but will recur repeatedly.
- 3.3 The maximum level of noise from larger animals has been measured: L_{AFmax} of **98dB** and collective maximums of **107dB**.
- 3.4 The issues which arise within assessment methodologies at present is that the L_{Aeq} which is a time-integrated measure, is deemed to be of limited benefit in predicting the annoyance impact.
- 3.5 Effectively the L_{Aeq} parameter does not characterise or represent the highly intermittent and impulsive nature of dog barking sound, as these are “smoothed” out over longer duration measurements.
- 3.6 There are uncertainties and inconsistencies with regard to the noise source data, with wide variances adopted, and uncertainty as to whether representative of noise emitted.
- 3.7 Approaches are put forward which suggest limiting the on-time of the barking to a 5 minutes in a 1 hour reference period. Such methods can have a dramatic effect on the overall predicted noise impacts.
- 3.8 The applicability of applying acoustic feature corrections for impulsivity, intermittency and the distinct nature of noise and the deemed source noise level are subject to recurring challenges, with acoustic experts unable to agree and concerned receptors where such proposals may impact upon their amenity objecting due to uncertainties.

- 3.9 A lack of a robust and consistent assessment method for noise emissions and impacts for such developments, results in uncertainty regarding impact on amenity.
- 3.10 Applicants assisted by their acoustic consultants due to the lack of clarity on the method of approach, challenge planning decisions, and sensitive noise receptors communicate significant concerns over consequences of such developments, in terms of adverse noise impacts.
- 3.11 The lack of consistent approach has not gone without recognition and has been the subject of a published Article within the Institute of Acoustics Bulletin, however the guidance vacuum although raised by practitioners dealing with such developments (Councils/Local Authorities in UK/Noise Consultants) has not been addressed.
- 3.12 Where challenges proceed against the refusal of planning permission due to differing opinions on the assessment and the magnitude of noise impacts, the Environmental Health Department are faced with scrutiny and further disagreements at planning appeal stage, without relevant grounds to counter the methodology adopted.
- 3.13 There is a risk without adoption of a clear noise impact methodology that such developments will proceed based upon inadequate noise impact assessments.
- 3.14 The proposed development may operate potentially with insufficient safeguards and inadequate levels of noise control which could give rise to noise emissions seriously impacting amenity and/or a further recourse under statutory nuisance.
- 3.15 In order to provide a robust and consistent approach, in the absence of UK Guidance/British Standards, a document containing a proposed method to predict the effect of noise from such developments has been drafted from the out workings of a small group composed of practicing Environmental Health Practitioners in this field within Northern Ireland (2019).
- 3.16 The document is aimed to provide technical guidance to Environmental Health Practitioners, with relevant key objectives:
1. In the absence of specific guidance to propose a method to predict the annoyance effect of characteristic barking from proposed dog kennels/boarding establishments.
 2. To prescribe key requirements that may be discussed with applicants/prospective applicants on what measures may be adopted to minimise noise impacts from dog kennels/boarding establishments.
 3. Promoting the engagement of applicants/prospective applicants at key stages and advocate the adoption of noise management plans.

4.0 Proposal

In the absence of a UK specific guide and/or adoption of a Regional Standard it is proposed that the **Technical Guidance: Planning and Noise: Assessment of Noise from Dog Kennelling and Boarding Establishments** detailed at Appendix 1 to this report, forms an open, transparent approach, with the opportunity for this to form additional technical guidance to assist key parties.

1. The Technical Guidance document may form part of additional advice and guidance which may be referred to within the consultation responses issued as internal advice to prospective applicants/developers, and noise consultants.
2. The Technical Guidance may be issued in response to Pre-Application Discussions to assist the applicant by providing key advice specific to the sector.
3. The Technical Guidance may be referred within planning appeal submissions as adopted.
4. The Technical Guidance may be accessible through the Council Website.
5. The Technical Guidance will be reviewed, amended and superseded in the event of UK specific Guidance/Published Regional Guidance.

5.0 Recommendation

It is recommended that the Environmental Services Committee recommends to Council the adoption of this internal technical guidance as detailed at Appendix 1 to this report in order to provide an open and transparent method to assess and consider noise impacts from dog kennelling/boarding establishments.

APPENDIX 1



TECHNICAL GUIDANCE: PLANNING AND NOISE:

ASSESSMENT OF NOISE FROM DOG KENNELLING AND BOARDING ESTABLISHMENTS

Drafted 25th February 2019.

Adopted: INSERT

Objectives:

1. In the absence of specific guidance it is intended that this document details a method to predict the annoyance effect of characteristic barking from proposed dog kennels / boarding establishments to aid Environmental Health staff in considering planning consultations.
2. The approach includes key aspects which require to be discussed with applicants / prospective applicants on how to minimise noise impact from kennels / boarding establishments.
3. The approach will require applicants / prospective applicants, to adopt the use of noise management plans within dog kennelling and boarding establishments to avoid adverse barking impacts and as a means of first addressing local concerns.

N.B. This document provides technical guidance to assist in the formation of a robust methodology, to assist in addressing potential noise impacts from dog kennelling establishments. It does not form planning policy in relation to these types of development.

Background:

Noise impacts due to barking from commercial dog kennelling / boarding premises.

Any application for Dog kennelling / boarding establishments must demonstrate that the impacts of dog noise have been considered.

The applicant will be required to demonstrate that the impact of dog barking is at an acceptable level.

The following measures in combination may be considered:

- A reasonable separation distance to receptors thereby reducing the resultant noise level of barking;
- A good structure (typically purpose-built) capable of insulating against noise breakout;
- A layout which limits the disturbance/agitation of the dogs and which uses barriers and shielding to minimise impacts upon nearby receptors; and
- Excellent management practices to ensure the minimal barking during, arrival, feeding, exercise and pick-up times.

Dog Barking Noise

1. Noise from barking is highly characteristic.
2. It is designed to attract attention and gives rise to fear or at least considerable annoyance in a large proportion of the population.
3. Barking is a very common source of noise complaint to Councils.
4. Barking tends to be unpredictable and intermittent.
5. Barking tends to consist of short bursts lasting a few seconds but recurring repeatedly.
6. Barking also tends to be taken up by other dogs when started by one, leading to several barking animals at the one time.

The need for this Technical Guidance

No agreed standard exists specifically to deal with the prediction of noise impacts from commercial-scale dog kennelling / boarding operations.

1. It is not considered appropriate to use BS 4142 + A1 2019, "Methods for rating and assessing industrial and commercial sound" because of the inability of the reference-time periods to represent such highly characteristic noise.
2. The applicability of BS 4142:2014 + A1 2019, "Methods for rating and assessing industrial and commercial sound" to such development is uncertain.
3. Section 1, 1.3 states, the standard is not intended to be applied to the rating and assessment of sound from: paragraph (e) states "domestic animals".
4. Currently there is ambiguity as to the intention or weight attributable to the wording in BS4142 I.E. "is not intended" and whether dogs as domestic animals but within a commercial setting should be included.

Current Assessment Standards

1. Standards which use a time-integrated measure such as L_{Aeq} are considered of limited benefit in predicting the annoyance response, due to barking dog noise source being highly intermittent and impulsive impact.
2. The representation of dog barking noise by L_{Aeq} tends to "smoothe" out over longer duration measurements and is not deemed to represent the character of the noise.

Proposed Assessment Standard

It is considered that an appropriate design standard for a new kennelling / boarding operation is one based on control over the **maximum barking level**.

1. Applying control to the maximum barking level places reliance upon good design, layout and insulation within the kennels and reduces the reliance upon assumptions of noise impact due to controlled behaviour of the dogs. Even with excellent facility management it is not always possible to prevent dogs responding in their natural way to external stimuli.
2. Measurements must be undertaken over a sufficient period of time to reflect the variations in operating practice (e.g. peak capacity, high external stimuli, high amenity periods (weekends) etc.).

3. This technical guidance proposes the use of the LAF max parameter as a proxy for the Sound Power Level Lw of barking. Alternative parameters such as LAeq 100ms and L peak could provide a similar proxy measure, however LAF max was chosen as published reference values are much more readily available.
4. In determining the likely noise impact, no on-time correction should be applied but this is balanced by the fact that no additional penalties for intermittency nor impulsiveness should be applied.

Dog Barking Noise

Sales et al. (1997) as cited in Garvey M. et al (2016) 'Auditory Stress: Implications for Kennelled Dog Welfare' published in Purdue Extension reported that the bark of a single dog can reach 100dB and recorded sound levels in kennels can range between 85dB and 112dB.

An impact assessment available on the NI Planning Portal under LA08/2018/1222/F cites typical LAeq values of 90dB and maximums of 95dB with 6 Alsatian dogs being measured at LAeq 98dB and a collective maximum of 107dB.

Other impact assessments publically available cite LAeq 80dB, LAFmax 96dB (Park Cottage, St Helens) and LAeq 80-92dB, LAFmax 80-97dB (Aberdeen Pet Resort).

In the absence of site-specific measured data which represents the expected use of the development, the impact assessment shall substantiate with evidence of source from which the figures have been derived. The figure used will have to be justified by the author of the impact assessment report.

It is considered that it would be unusual to accept a LAFmax of less than 95dB as being typical of dog barking noise. If larger dogs are to be or could be housed at the development then a value of LAFmax 100dB should be used.

Proposed standard to prevent adverse noise impacts:

This should be considered the source noise level.

1. A LAFmax of 95dB is acceptable, however where larger dogs are to be housed or could be housed, then a value of LAF max of 100dB should be used.

2. During the daytime between 08:00hrs and 20:00hrs such developments should be designed such that the L_{Amax} noise impact at nearest receptors should not exceed the background sound level L_{A90}.

(BS 4142 provides an appropriate method for the determination of representative background sound levels L_{A90}). This should minimise barking from the kennels to a low impact level during these hours.

3. During early morning (07:00hrs to 08:00hrs), evening (20:00hrs to 23:00hrs) and night-time hours (23:00hrs to 07:00hrs) the presence of any noticeable dog barking will give rise to an impact upon amenity. Accordingly, such developments should be designed to ensure the L_{Amax} remains 10 dB below a representative night-time background sound level L_{A90}. In effect, unless otherwise demonstrated, this is likely to mean that dogs need to be inside within an insulated building during these periods.

Noise Management Plan

A noise management plan is required as a supporting submission:

Details shall include:

- Capacity for animals/ maximum number of dogs
- Operational Arrangements/Noise Control Measures: including times for feeding, exercise - locations for external activity/walking
- A complaint response system.

Control Measures to be Included are:

- Design and layout must mitigate noise where dogs are kept outside or have free access to outside areas during daytime hours.
- Consideration of areas for the walking of dogs as part of the kennelling / boarding activity, should be demonstrated as having effective management measures in place to negate adverse noise impacts.

Depending on context/ site location it may be acceptable to include 2 periods no longer than 30 minutes each where the noise level between 08:00hrs and 20:00hrs may exceed the background sound level. This may be suitable to accommodate feeding times or other such activity.

The applicant shall include this within the noise management plan.

Where a planning application is submitted to retain a kennelling / boarding operation, it is preferable that measurements be undertaken at and within the nearest sensitive receptor locations during the representative operation of the business.

The proposed standard shall apply.

Measurements must be undertaken over a sufficient period of time to reflect variation in operating practice (e.g. peak capacity, high external stimuli, high amenity periods (weekends etc)).