

Submission for Ireland 2040 Our Plan

A proposal to establish statutory guidelines on the assessment of noise impact within the planning process for new noise sensitive premises, and for new noise sources.

The Environmental Noise Regulations 2006, S.I. No. 140 of 2006 (Regulations) transpose into Irish Law the EC Directive 2002/49/EC (END) on the assessment and management of environmental noise.

The Environmental Noise Regulations are designed to cover environmental noise as defined as:

“unwanted or harmful outdoor sound created by human activities, including noise emitted by means of transport, road traffic, rail traffic, air traffic, and from sites of industrial activity”

Within the Regulations, acoustical planning is defined as:

“controlling future noise by planned measures, such as land-use planning, systems engineering for traffic, traffic planning, abatement by sound-insulation measures and control of noise sources”

The Environmental Protection Agency (EPA) is the designated national competent authority under the Regulations, and has issued a Guidance Note for Noise Action Planning, July 2009. Available here:

<http://www.epa.ie/pubs/advice/noisemapping/epaguidancenotefornoiseactionplanning.html>

Within the guidance note there is a review of the current situation regarding planning and noise on Page 11.

“Whilst Local Authorities currently have it within their powers to set conditions relating to noise as part of a planning permission, there is currently no national policy or guidance which addresses the issue of noise during planning. This can lead to inconsistencies in relation to both the assessment and conditioning of planning applications.

The National Roads Authority has published the document “Guidelines for the Treatment of Noise and Vibration in National Road Schemes”, which sets out the procedure to be followed in respect of “the planning and design of national road schemes”. Given the lack of detailed planning guidance relating to other sources of noise, the approach and noise level targets set out by the NRA have been applied to other scenarios. For example, planning conditions relating to new residential developments alongside existing roads may call for the façade level to be limited to the design goal given in the NRA document. This is not the correct approach and does not represent the optimum approach for ensuring good residential amenity. The NRA’s construction noise and vibration limits have also been reproduced extensively in quite unrelated contexts. In the absence of other relevant guidance the NRA guidelines are becoming a de-facto standard, albeit one likely to be used out of context.

The Department of the Environment, Heritage and Local Government (DEHLG) has previously published the following documents relating to sustainable development in the urban environment:

- Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities), September 2007;
- Sustainable Residential Development in Urban Areas: Consultation draft guidelines for Planning Authorities, February 2008; and
- Urban Design Manual: A best practice guide (A companion document to the Draft Planning Guidelines on Sustainable Residential Development in Urban Areas), February 2008.

The document dealing with Design Standards for New Apartments calls for “attention at the design and construction stages to prevent undue noise transmission between units”. There is no mention of appropriate design goals or the methodology to be employed, other than reference to Part E of the Building Regulations (see below).

The consultation draft guidelines for Sustainable Residential Development highlight the need to “Deliver a quality of life which residents and visitors are entitled to expect, in terms of amenity, safety and convenience”. They go on to state that “Privacy is an important element of residential amenity”. Whilst they are not mentioned specifically, environmental noise and noise transfer between dwellings are both key considerations in respect of amenity and privacy.

The Urban Design Manual lists Privacy & Amenity as one of twelve key issues, with specific reference to the need to prevent sound transmission in homes by way of appropriate acoustic insulation or layout. There is some comment in relation to the use of appropriate building materials and also the zoning of dwellings to minimize the potential for excessive noise transfer.

If the overall aims of noise action plans are to be realised, it is important that the planning of new residential properties, or other noise sensitive buildings, is carefully considered and suitable conditions applied to ensure that they do not just produce an increase in the population exposed to high levels of environmental noise. Aspects such as façade orientation, room usage, façade construction, window construction, use of passive or active air vents, site boundary noise mitigation, creation of quiet gardens or courtyards, could all be imposed as conditions during planning to help reduce the exposure of the population.

It is suggested that the framework of the Regulations and the Action Plans creates an opportunity to set out design targets and guidance at national or local level in order to help ensure that future developments include provisions to protect the population from the effects of environmental noise. Planning guidance relating to noise would help to support the aims of the Environmental Noise Regulations and Noise Action Plans by providing tools for the planners to use when assessing and granting new developments.”

The EPA guidance then sets out an approach for the long-term management of exposure to environmental noise in line with the aims and objectives of the END and the Regulations:

“preventing and reducing environmental noise where necessary and particularly where exposure levels can induce harmful effects on human health and to preserving environmental noise quality where it is good.”

This implies two scenarios which are to be addressed by the noise action plans developed under the Regulations:

- Protection of the future noise climate; and
- Reduction of the existing noise climate where necessary.

Reduction of the existing noise climate is addressed by noise reduction measures which will not be discussed further. However, the future noise climate is protected via a combination of the existing noise control measures, and any further actions proposed as part of the Action Plan.

In order to avoid harmful effects of environmental noise in the future it is necessary to put actions in place which will provide adequate protection from existing noise sources on proposed noise sensitive developments, and from the potential impacts of new developments on existing noise sensitive premises, including dwellings, schools, hospitals, places of worship etc.

In the context of planning and sustainable development it is relevant to consider the potential noise impact of a proposed future development in the context of the existing environmental noise climate, and have relevant guidance in place on control of noise exposure for noise sensitive premises. In the majority of cases it would be expected that this would most appropriately be managed through the planning process, including existing provisions for Environmental Impact Assessments, but may also include the provision of licenses for some operations. It is important to recall that environmental noise impact may not be assessed in isolation, rather taken into consideration and balanced with other relevant factors including sustainability, need, economic and social benefits etc.

Over the course of the past 10 years, and the lifecycle of the first two rounds of noise action plans under the Regulations, it has become apparent that the objective of protecting the future noise climate through consideration of noise within the planning process is currently failing to achieve the required results. The primary reason is the lack of national guidance on assessment of noise within the planning process. Whilst a number of local authorities have established their own guidelines, this has led to an inconsistent approach across Ireland, and the use of existing national guidance, such as the NRA documents referenced above, being used out of context. This has led to a situation where the inconsistent and insufficient consideration of existing noise levels when determining planning decisions relating to new noise sensitive developments, such as dwellings or schools, and apart from national roads there is inconsistent consideration of noise from proposed developments impacting existing noise sensitive areas.

Recent publications from the World Health Organisation (WHO) and European Environment Agency (EEA) have set out the case for long term exposure to environmental noise having a significant detrimental effect on human health, and being directly linked to health effects including annoyance, stress and cardiovascular disease resulting in a significant burden of disease resulting in lost productivity and reduced active life years.

- WHO Night Noise Guidelines for Europe 2009
- WHO - Burden of Disease from Environmental Noise 2011

- WHO Methodological Guidance for Estimating the Burden of Disease from Environmental Noise 2012
- EEA & DG JRC - Environment and Human Health 2013

As the National Planning Framework is to set out the strategic vision for managing expansion of the national housing stock, strategic transportation infrastructure and improvements to health and well-being, the issue of environmental noise sits firmly within the centre of these three areas. The potential impact on health and well-being from inappropriately developed residential areas near to existing sources of noise, or transport infrastructure near to existing noise sensitive locations, could be significant. Whilst it may be possible to introduce noise mitigation measures after the fact, these tend to be significantly more expensive than management of development as a means of avoiding the problem at source.

There are many examples around the world of implementing consideration of environmental noise within the planning process, and solutions range from the use of noise limit values, to development zoning, through layered guidance to consider the degree of noise impact within the development.

On foot of the NPF it is recommended that due consideration is given to establish statutory guidelines on the assessment of noise impact within the planning process for new noise sensitive premises and for new noise sources. This could support the NPF aims to manage expansion of the strategic transport network and residential capacity whilst also helping to maintain and improve the long-term health and well-being of the citizens.

Some examples of the existing measures in place across the UK are linked below:

Northern Ireland:

Noise policy statement for Northern Ireland: <https://www.daera-ni.gov.uk/publications/noise-policy-statement-northern-ireland>

Scotland:

Planning Advice Note 1/2011: Planning and Noise:
<http://www.gov.scot/Publications/2011/02/28153945/0>

And accompanying Technical Advice Note: Assessment of Noise:
<http://www.gov.scot/Publications/2011/03/02104659/0>

Wales:

Technical Advice note 11: noise (1997): <http://gov.wales/topics/planning/policy/tans/tan11/?lang=en>

And updates from November 2015:
<http://gov.wales/topics/planning/policy/policyclarificationletters/2015/cl-01-15/?lang=en>

England:

Noise policy statement for England: <https://www.gov.uk/government/publications/noise-policy-statement-for-england>

DCLG Guidance on noise: <https://www.gov.uk/guidance/noise--2>

Acustica Limited

Acustica have been working with the EPA in Ireland providing technical support under the Environmental Noise Regulations since 2006. During this time, we have provided technical and policy support to the EPA, noise mapping bodies and action planning authorities in connection with strategic noise mapping and noise action plans. This support has included policy advice and training on implementing noise action plans, and the role of planning policy, planning decisions and planning conditions in order to preserve environmental noise quality where it is good, and help to avoid creating additional noise exposure through inappropriate development.

Acustica have over 25 years experience of environmental noise monitoring, management and control in Ireland, UK, Malta, Turkey and Romania in connection with transportation infrastructure, industry and the development of noise sensitive premises, including dwellings, schools and hospitals.