

Policy Guidance on the Identification, Designation and Management of Quiet Areas

Environmental Noise (Northern Ireland) Regulations 2006

20 September 2016

Executive Summary

This Policy Guidance sets out the Department's criteria for identifying, designating and protecting Quiet Areas.

Noise is any sound which is intrusive, disturbing or annoying. It can be one of the most pervasive pollutants and is capable of causing annoyance, stress, sleep disturbance and other serious conditions.

The World Health Organisation states that noise can seriously harm human health and interfere with people's daily activities at school, at work and during leisure time. Depending on the level of noise and its duration, the main health risks identified by the World Health Organisation include pain and hearing fatigue, impaired hearing, altered behaviour (such as aggression or feelings of helplessness), interference in speech and communication, sleep disturbance, cardiovascular effects, reduced academic and professional performance and altered hormonal responses (including increased hormone levels, altered metabolism and weakened immune system).

Noise pollution is a growing concern in Europe. The Environmental Noise Directive (END) (Directive 2002/49/EC relating to the assessment and management of environmental noise) acknowledges the need for preventing or reducing environmental noise levels that may negatively affect human health, including annoyance and sleep disturbance. In addition, it highlights the need to preserve 'environmental noise quality where it is good'. This is done through the designation of quiet areas.

The END has three objectives:

- To determine the noise exposure of the population through noise mapping;
- To make information on environmental noise available to the public; and
- To develop Action Plans based on the mapping results, to reduce noise levels where necessary, and to preserve environmental noise quality where it is good (which includes protecting Quiet Areas).

1 Introduction

1.1 The need for quiet

There is growing policy and emphasis on the positive role of open space, especially green space, in helping to ameliorate some of the problems of urban living. In a survey carried out by the charity Environmental Protection UK, 91% of respondents felt that quiet areas needed protection¹. This is understandable given the wide array of medical conditions that can arise due to noise exposure. Conditions include pain and hearing fatigue, impaired hearing, altered behaviour (such as aggression or feelings of helplessness), adverse cardiovascular effects, and altered hormonal responses (including increased hormone levels, altered metabolism and weakened immune system).

It is generally accepted in research and policy communities that open spaces in cities can enhance quality of life by contributing to the physical, psychological and social health of citizens, as well as helping to sustain ecosystems and conserve biodiversity.

A glossary of the acoustic technical terms used in this Policy Guidance is set out in **Annex A**. **Annex B** lists the current noise policy and guidance and **Annex C** identifies the policy and legislation relating to noise control in Northern Ireland.

1.2 Quiet Areas - Legislative Scope and Purpose of Policy Guidance

One aim of the END is “to preserve environmental noise quality where it is good”. The Directive also emphasises the need to protect or limit noise in designated Quiet Areas². Action Plans, which are to be prepared to manage noise, should also protect areas that are already quiet against an increase in noise³. They should set out the extent to which Quiet Areas are to be protected from an increase in environmental noise and how the protection is to be delivered.

The END is transposed in Northern Ireland through the Environmental Noise Regulations (Northern Ireland) 2006 (the Regulations). Regulation 40 requires the Department of Agriculture, the Environment and Rural Affairs (DAERA) to prepare maps identifying Quiet Areas within agglomerations⁴. At the time of publication, the only agglomeration in Northern Ireland is Belfast. The Belfast agglomeration includes parts of Carrickfergus, Newtownabbey, Lisburn, Holywood, Dundonald, Carryduff and Bangor. The agglomeration boundary is shown in the maps in Annex D.

Article 3(l) of the END defines a quiet area in an agglomeration as meaning:

“an area, delimited by a competent authority, for instance, which is not exposed to a value of Lden⁵ or another appropriate noise indicator greater than a certain value set by the Member State, from any noise source”.

Thus, a Quiet Area is not one that is silent, but rather one that is undisturbed by unwanted or harmful outdoor sound created by human activities (i.e. environmental noise) from any source, and not just the noise sources referred to in END. Harmful sounds are those that negatively affect human health, such as through annoyance or sleep disturbance.

As there is no prescriptive definition of what constitutes a Quiet Area, the Department has developed criteria and a methodology for the identification and designation of Quiet Areas based on

¹ Environmental Protection UK, Survey for Noise Action Week (2009). See www.environmental-protection.org.uk/news/detail/?id=2009

² Article 8² and annex V²

³ Article 8(1)(b)

⁴ For round one an agglomeration is an area with a population exceeding 250,000 persons and a population density equal to or greater than 500 people per km² and which is considered urbanised. For round two an agglomeration is an area with a population exceeding 100,000 persons and a population density equal to or greater than 500 people per km² and which is considered urbanised.

⁵ A weighted sound level for a 24 hour period.

an extension of established good practice across the UK and Europe and following a public consultation including key stakeholders in Northern Ireland. This Policy Guidance sets out the criteria and methodology for the identification of Quiet Areas in Northern Ireland and highlights the mechanisms by which Quiet Areas shall be protected against an increase in all sources of noise.

In Northern Ireland DAERA as the designated Competent Authority, is required to identify and designate Quiet Areas. This Policy Guidance, along with a full public consultation and discussions with district councils, has been used to identify the Quiet Areas listed in **Annex D**.

Due to a lack of a precise definition of a Quiet Area in the Directive, DAERA may undertake or consider further research or developments elsewhere and may amend this Policy Guidance in the future.

2. Criteria and Process for Identifying Quiet Areas

The Department reviewed European suggested good practice on the designation of Quiet Areas⁶, other research and the criteria and procedures that have been adopted by other Member States. This Policy Guidance sets out a staged approach for the identification of Quiet Areas in Northern Ireland. Filters (criteria) are applied to open spaces within the Belfast agglomeration (and will be applied to any future agglomerations) to ensure that the most appropriate areas are designated. This approach provides evidence of a clear and traceable decision making process.

The selection criteria are similar to those adopted by the other parts of the UK and the Republic of Ireland. The criteria are:

1. Land Type Filter - Publically available parks and open space within an agglomeration;
2. Noise Level Filter - Noise level less than 55Lden; and
3. Minimum Area Filter - Minimum area of 5 hectares.

The noise level data is publically available on Open Data NI via the following link <https://www.opendatani.gov.uk/dataset/environmental-noise-directive-noise-mapping>

Combined with GIS software, this data can be used by District Councils or other interested parties when applying the criteria to consider the appropriateness of further areas for designation as Quiet Areas by DAERA.

Land Type Filter

Only publically available open spaces within an agglomeration should be considered for designation as a Quiet Area, as the public, generally do not have the same access to privately owned land and it important that all individuals have the right to access these areas equally. Such areas include public parks or paths to which the public have access. Such open spaces will already be valued by local communities and they may already be managed so as to maintain quietness.

Noise Level Filter

The consolidated noise map is used to identify the areas of publically owned open space within the agglomeration which have noise levels below 55 dB Lden consolidated⁷.

Minimum Area Filter

Following this, apply a minimum area filter of 5 hectares to the public parks and open spaces database that have noise levels less than 55 dB Lden.

⁶ EEA Technical Report No. 4/2014 Good practice guide on quiet areas. European Environment Agency 2014.

⁷ An averaged noise level based on day, evening and night noise levels

Application of the criteria using the procedure set out above generated a list of Quiet Areas which is included in **Annex D**.

3. Consultation and Designation of Quiet Areas

As noise maps indicate modelled noise levels (not measured levels) and as land use can change, district councils will be given the opportunity, if they considered it necessary, to visit Candidate Quiet Areas and consider the appropriateness of an area for designation.

Any further areas put forward for designation by district councils or the Department will be reviewed in light of this Policy Guidance and any measured noise levels taken by District Councils. Any additional Candidate Quiet Areas will be subject to a public consultation prior to designation by the Minister.

Within 28 days of adoption by the Minister, the Policy Guidance, including list of designated Quiet Areas, will be published by the Department in an electronic format.

4. Protection of Quiet Areas

Once formally designated, district councils will manage the local noise environment within Quiet Areas to avoid increases in noise from any source. They can monitor the noise levels within Quiet Areas to identify increases in noise. Alternatively, councils can rely on noise maps which are published every 5 years pursuant to the requirements of END. Based on noise levels, Councils should coordinate or undertake any necessary mitigation activities, such as noise barriers and take enforcement action in situations where noise levels have become unacceptable. It is for the district councils to determine what is considered 'unacceptable' in light of the nature and use of the area and users of the space. However, Lden consolidated levels should remain below 55dB.

Councils can protect Quiet Areas by:

1. bringing forward bespoke policy in their local development plans; and
2. managing development through determining planning applications.

When preparing local development plans, councils can ensure, insofar as possible, that land zoned for uses which are likely to generate significant levels of noise are located an appropriate distance from Quiet Areas. Where this is unavoidable, local development plans should seek to mitigate the noise through the application of appropriate key site requirements to new zonings.

In managing development, planning authorities will treat noise as a material consideration in the determination of planning applications where appropriate. Where noise is identified as a significant issue, consultation with the Environmental Health Department of the local council will be necessary. Planning Authorities have the power to attach conditions to a grant of planning permission to mitigate the increased noise generated by a development proposal or use planning agreements to overcome obstacles to the grant of a planning permission where these cannot be overcome by the use of conditions. Such conditions or agreements should preserve the noise climate within a Quiet Area. In determining applications, planning authorities strive to reach balanced decisions which consider noise issues alongside other relevant material considerations, including the wider benefits of a particular proposal.

The Strategic Planning Policy Statement for Northern Ireland (SPPS)⁸ provides additional strategic planning guidance on noise as a material consideration in the determination of planning applications and will inform the preparation of local development plans.

Planning authorities should also give due regard to the Noise Policy Statement for Northern Ireland⁹. The third aim of the Statement is "where possible, contribute to the improvement of health

⁸ Strategic Planning Policy Statement for Northern Ireland 2015– Planning for Sustainable Development (DOE)

⁹ Noise Policy Statement for Northern Ireland, September 2014

and quality of life.” The protection of Quiet Areas assists in delivering this aim as noise is known to seriously harm human health.

In addition to the protection afforded to Quiet Areas through the planning system, Competent Authorities, who have responsibility for the noise sources covered by the END¹⁰, may adopt measures, such as noise limits or traffic management systems, to prevent noise increases having an adverse affect on Quiet Areas. Many of these measures have been set out in the Competent Authority Noise Action Plans which have been adopted by the Minister and are now policy. Competent Authorities may also need to review their Action Plans following the designation of Quiet Areas to ensure that there is no conflict and that they are taking sufficient action to prevent an increase in noise from the sources for which they have responsibility. Where a conflict exists, Competent Authorities should liaise with the relevant distinct councils to resolve any issues and ensure that Quiet Areas are not compromised.

5. Review of Quiet Areas

The Department aims to review Quiet Areas every 5 years based on the results of noise mapping. This will ensure that where noise levels are increasing, the appropriate bodies can take the necessary action.

Should a council request that the Department revokes a Quiet Area, the Department will consider this request. In doing so, the Department will consider the results of the most recent round of noise mapping, any noise monitoring data available, the reasons for any increase in noise, the proportion of the Quiet Area which exceeds 55 dB Lden consolidated, the extent of the exceedance, the noise levels in the vicinity of the Quiet Area, the options for reducing noise in the quiet area, the availability of an alternative Quiet Area and any other relevant factors.

¹⁰ Department for Regional Development for road noise, Translink for railway noise, Belfast International and George Best Belfast City Airports for airport noise and the Department of the Environment for industrial noise within agglomerations.

Annex A - Glossary of Acoustic and Technical Terms

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| Action Plan | <p>Plans designed to manage noise issues and effects, including noise reduction if necessary. An Action Plan must include:</p> <ul style="list-style-type: none"> • A description of the agglomeration, major roads, major railways and major airports and other noise sources taken into account; • The authority responsible; • The legal context; • Any limit values in place in accordance with Article 5 of the END; • A summary of the results of the noise mapping; • An evaluation of the estimated number of people exposed to noise, identification of problems and situations to be improved; • A record of the public consultations organised in accordance with Article 8(7) of the END; • Any noise-reduction measures already in force and any projects in preparation; • Actions which the Competent Authorities intend to take in the next five years, including any measures to preserve quiet areas; • Long-term strategy; • Financial information (if available): budgets, cost-effectiveness assessment, cost-benefit assessment; and • Provisions envisaged for evaluating the implementation and the results of the Action Plan. <p>The actions which the Competent Authorities intend to take in the fields within their competence may include:</p> <ul style="list-style-type: none"> • Traffic planning; • Land-use planning; • Technical measures at noise sources; • Selection of quieter carriages or rails; • Reduction of sound transmission; • Regulatory or economic measures or incentives. <p>Each Action Plan should contain estimates in terms of the reduction of the number of people affected (annoyed, sleep disturbed, or other).</p> |
| Agglomeration (first round) | A part of a territory, delimited by the Member State, having a population in excess of 250 000 persons and a population density such that the Member State considers it to be an urbanised area. The population density must exceed 500 persons per square kilometre. |
| Agglomeration (subsequent rounds) | A part of a territory, delimited by the Member State, having a population in excess of 100,000 persons and a population density such that the Member State considers it to be an urbanised area. The population density must exceed 500 persons per square kilometre. |
| Attributable Data | A trait, quality, or property describing a geographical feature, e.g. vehicle flow or building height |
| Attributing (Data) | The linking of attribute data to spatial geometric data |
| ASL | Above Sea Level |
| Competent Authority | The Competent Authorities will be responsible for aspects such as making and where relevant, approving noise maps and Action Plans for agglomerations, major roads, major railways and major airports; delimiting quiet areas within agglomerations and collecting noise maps and Action Plans. |

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| | <p>The Competent Authorities are as follows:</p> <ul style="list-style-type: none"> • Agglomerations – Department of the Environment • Major roads – Department for Regional Development • Major railways – Northern Ireland Transport Holding Company • Major airports – Airport Operator |
| Data | Data comprises information required to generate the outputs specified, and the results specified. |
| Decibel (dB) | <p>The human ear can detect sound waves exerting pressures ranging from 20 micropascals up to 100,000,000 micropascals. Because these numbers are so unwieldy, we don't use this linear pressure scale to describe how loud a sound is, but rather convert it to a logarithmic scale (the decibel scale).</p> <p>The typical threshold of human hearing, 20 micropascals, is set as 0 decibels. It follows from this that the loudest sounds we can hear before suffering immediate hearing damage (around 100,000,000 micropascals) corresponds to around 130-140 decibels.</p> <p>Typically, an increase/decrease of ten decibels is perceived by listeners as a doubling/halving in loudness. (Doubling/halving the sound power of the source, however, only results in an increase/decrease of three decibels. The response of the human ear is non-linear in energy terms.)</p> |
| dB(A) | <p>The human ear is most sensitive to sound waves with frequencies of a few thousand Hz. A sound wave outside this range will sound noticeably quieter than one in this range with the same sound pressure amplitude. Describing the loudness of a sound purely in terms of decibels based on sound pressure is therefore misleading.</p> <p>When measuring sound, it is therefore standard practice to break it down into frequency bands and apply a correction to each band depending on the sensitivity of the typical human ear to the frequencies in that band, before combining them into an overall 'A-weighted' sound pressure level.</p> <p>A-weighted decibels are a good indication of perceived loudness for broadband noise (noise covering a broad range of frequencies), but they sometimes underestimate the effect of low-frequency noise.</p> |
| END | Directive 2002/49/EC of the European Parliament and Council relating to the assessment and management of environmental noise, otherwise known as the Environmental Noise Directive. |
| GIS | Geographical Information System |
| ISO | International Standards Organisation |
| L _{Aeq,T} | The A-weighted equivalent continuous sound pressure level which is a notional continuous level that, at a given position and over the defined time period, T, contains the same sound energy as the actual fluctuating sound that occurred at the given position over the same time period, T. |
| L _{day} | The L _{Aeq} over the period 0700 – 1900, local time (for strategic noise mapping this is an annual average). |
| Levening | The L _{Aeq} over the period 1900 – 2300, local time (for strategic noise mapping this is an annual average). |
| L _{night} | The L _{Aeq} over the period 2300 – 0700, local time (for strategic noise mapping this is an annual average). |
| L _{Aeq,16h} | <p>The L_{Aeq} over the period 0700 – 2300, local time (for strategic noise mapping this is an annual average).</p> <p>The World Health Organisation's Guidelines for Community Noise 2000</p> |

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| | recommend a guideline limit for L _{night} of 45 dB(A) outside an open bedroom window to avoid sleep disturbance. |
| L _{den} | The LA _{eq} over the period 0000 – 2400, but with the evening values (1900 – 2300) weighted by the addition of 5 dB(A), and the night values (2300 – 0700) weighted by the addition of 10 dB(A). |
| Limit Values | Member States are required to inform the Commission of existing limit values or limit values in preparation (Article 5, paragraph 4 of the END). These must be expressed in terms of the noise indicators L _{den} and L _{night} . Limit values are defined as meaning 'a value of L _{den} or L _{night} , and where appropriate L _{day} and L _{evening} , as determined by the Member State, the exceeding of which causes competent authorities to consider or enforce mitigation measures' (Article 3 (s) of the END). |
| Major Airport | The END defines a major airport as: a civil airport, designated by the Member State, which has more than 50,000 movements per year (a movement being a take-off or landing), excluding those purely for training purposes on light aircraft (Article 3(p)). In the UK a light aircraft is generally considered to be one with a maximum take-off weight authorised (MTWA) of less than 5,700 kilogrammes. In the UK a civil airport is one operated by civil authorities and so excludes those operated by the military. In any event, military activity in a military area is excluded from the END (Article 2, paragraph 2). |
| Major Railway | The END defines a major railway as: a railway designated by the Member State which has more than 30,000 train passages per year' (approximately 80 train passages per day) (Article 3(o)). However, for the first round of mapping in 2007 the qualifying figure is 60,000 train passages per annum (Article 7, paragraph 1). The END required that, no later than 30 June 2005 (and thereafter every five years), Member States shall inform the Commission of the major railways that have more than 60,000 train passages per year (Article 7, paragraph 1). |
| Major Road | The END defines a major road as: a regional, national or international road, designated by the Member State, which has more than 3 million vehicle passages per annum' (approximately 8,200 vehicles per day) (Article 3(n)). However, for the first round of mapping the qualifying threshold is 6 million vehicle passages per annum (Article 7, paragraph 1). |
| Noise Bands | Areas lying between contours of the following levels (dB): L _{den} <55, 55 – 59, 60 – 64, 65 – 69, 70 – 74, ≥75 L _d <55, 55 – 59, 60 – 64, 65 – 69, 70 – 74, ≥75 L _e <55, 55 – 59, 60 – 64, 65 – 69, 70 – 74, ≥75 L _n <45, 45-49, 50 – 54, 55 – 59, 60 – 64, 65 – 69, ≥70 Notes: 1) It is recommended that class boundaries be at .00, e.g. 55 to 59 is 55.00 to 59.99. 2) The assessment and reporting of the 45 – 49 dB band for L _{night} is optional under the Regulations. |
| Noise Levels | Free-field values of L _{den} L _d , L _e , L _n , and LA _{10,18h} at a height of 4m above local ground level. |
| Noise Mapping | The presentation of data on an existing or predicted noise situation in terms of a noise indicator, indicating breaches of any relevant limit value in force, the number of people affected in a certain area, or the number of dwellings exposed to certain values of a noise indicator in a certain area. |
| Noise Mapping (Input) Data | Two broad categories: (1) Spatial (e.g. road centre lines, building outlines). (2) Attribute (e.g. vehicle flow, building height – assigned to specific spatial data). |
| Noise Mapping Software | Computer program that calculates required noise levels based on relevant input data. |

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| Noise Model | All the input data collated and held within a computer program to enable noise levels to be calculated. |
| Noise Model File | The (proprietary software specific) project file(s) comprising the noise model |
| Output Data | The noise outputs generated by the noise model |
| Processing data | Any form of manipulation, correction, adjustment factoring, correcting, or other adjustment of data to make it fit for purpose (includes operations sometimes referred to as 'cleaning' of data). |
| Quiet Area | Article 3(l) and 3(m) of the END define a 'quiet area in an agglomeration' as an area, delimited by the Competent Authority, for instance which is not exposed to a value of L_{den} or of another appropriate noise indicator greater than a certain value set by the Member State, from any noise source. |
| Round One | <p>The noise mapping and action planning process is to be taken forward on a five-year rolling programme. The first round of mapping and action planning applies to the largest of the agglomerations (including the industries and ports within them), the busiest major roads and railways and all major airports. The thresholds determining which agglomerations, major roads, major railways and major airports should be mapped during the first round are set out in Article 7 paragraph 1 and are as follows:</p> <ul style="list-style-type: none"> • Agglomerations - only those which have a population in excess of 250,000 persons; • Major roads - only those which more than 6 million vehicle passages a year; • Major railways - only those that have more than 60,000 train passages per year; • All airports within round one agglomeration and major airports. |
| Round Two | <ul style="list-style-type: none"> • Agglomerations - only those which have a population in excess of 100,000 persons; • Major roads - only those which more than 3 million vehicle passages a year; • Major railways - only those that have more than 30,000 train passages per year; • All Airports within round one and any which have since expanded and meet the criteria of the END. |
| Spatial (input) Data | Information about the location, shape, and relationships among geographic features, for example road centre lines and buildings. |
| WG - AEN | Working Group – Assessment of Exposure to Noise |

Annex B - List of Current Noise Policy and Guidance

Air Navigation Order 2005

Air Navigation (Environmental Standards) Order 2002

The Airports (NI) Order 1994

Aeroplane Noise Regulations 1999

Clean Neighbourhoods and Environment Act (Northern Ireland) 2011

Land Acquisition and Compensation (Northern Ireland) Order 1973

Noise Insulation Regulations (NI) 1995

Aeroplane Noise Regulations 1999

Aeroplane Noise (Amendment) Regulations 1999

Air Navigation (General) Regulations 1999

The Aerodromes (Noise Restrictions) (Rules and Procedures) Regulations 2003

The Pollution Prevention and Control Regulations (Northern Ireland) 2013

The Environmental Assessment of Plans and Programmes Regulations (NI) 2004

The Civil aviation Act 2006

Environmental Noise Regulations (Northern Ireland) 2006

Relevant Policy and Guidance Publications.

Control of Noise (Code of Practice for Construction and Open Sites) Order (NI) 2002

Calculation of Road Traffic Noise, Department of Transport 1998 - NI Modification

Design Manual for Roads and Bridges Volume 11 Section 3 Part 7 Traffic Noise and Vibration

Land Compensation - Your Rights Explained DOE (NI)

Land Compensation Your rights explained - Insulation against Traffic Noise 1995

BS 5228-1:2009+A1:2014, Code of practice for noise and vibration control on construction and open sites. Noise.

BS 5228-2:2009+A1:2014, Code of practice for noise and vibration control on construction and open sites. Vibration.

BS 5821-3:1984, Methods for rating the sound insulation in buildings and of building elements. Method for rating the airborne sound insulation of façade elements and façades

BS 4142:2014, Methods for rating and assessing industrial and commercial sound

BS 6472:2008-1, Guide to evaluation of human exposure to vibration in buildings. Vibration sources other than blasting.

BS 6472:2008-2, Guide to evaluation of human exposure to vibration in buildings. Blast-induced vibration.

BS 7445-1:2003, Description and measurement of environmental noise. Guide to quantities and procedures.

BS 7445-2:1991, Description and measurement of environmental noise. Guide to the acquisition of data pertinent to land use.

BS 7445-3:1991, Description and measurement of environmental noise. Guide to application to noise limits.

BS 8233:2014, Guidance on sound insulation and noise reduction for buildings

BS EN ISO 717-1:2013, Acoustics. Rating of sound insulation in buildings and of building elements. Airborne sound insulation.

BS EN ISO 717-2:2013, Acoustics. Rating of sound insulation in buildings and of building elements. Impact sound insulation

DEFRA - Low Frequency Noise 2002

Delivering the goods – a toolkit for improving night time-deliveries Freight Transport Association in consultation with Department for Transport

Calculation of Railway Noise 1995 Department of Transport

Environment Agency IPPC Draft Noise Guidance Part 1 Regulation and Permitting 2001
Environment Agency Horizontal Guidance for Noise Part 2 - Noise Assessment and Control 2001

The Noise Insulation (Railways and other Guided Transport Systems) Regulations 1996

DEFRA – A Review of Published Research on High Freq. Noise and It Effects – May 2003

National Planning Policy Framework 2012

Revised DCAN 10: Environmental Impact Assessments, September 2012

DMRB Screening Method Spreadsheet Version 1.02 November 2003

Noise Policy Statement for Northern Ireland 2014

Transport Assessment; Guidelines for Development Proposals in N. Ireland Nov 06 DRD/DOE

Annex C - Policy and Legislation relating to the Control of Noise in Northern Ireland

Noise Act 1996

Councils in Northern Ireland have discretion whether or not to adopt the Noise Act 2006 which provides them with additional powers to deal with noise at night from domestic premises. Such powers include issuing warning and fixed penalty notices and in certain circumstances seizing noise making equipment.

Noise Policy Statement for Northern Ireland 2014

This document seeks to clarify current policies and practices to enable noise management decisions to be made within the wider context, at the most appropriate level and in a cost-effective and timely manner. It also seeks to compliment and build upon current legislative and regulatory regimes which apply at the international, European, national and local levels for all sources and types of noise.

Regional Transportation Strategy for Northern Ireland 2002 – 2012

This requires the environmental impact including noise to be assessed for noise improvement schemes and the effects of any noise to be considered when determining the feasibility of any such scheme.

Clean Neighbourhoods and Environment Act (Northern Ireland 2011)

This Act gives district councils the power to deal with noise from premises, including land, which they consider is prejudicial to health or amounts to a statutory nuisance. Where a council is satisfied that a nuisance exists, it can serve an Abatement Notice requiring the noise to be stopped altogether or limited to certain times of the day. The Act also introduced new powers for district councils to designate all or part of their district as an alarm notification area and extended the range of premises against which a council can take action under the Noise Act 1996 as well as extending the Noise Act 1996 to all district councils in Northern Ireland from April 2012.

Planning

When proposing the construction of a new road or additional carriageway, a noise impact assessment must be carried out as part of the Environmental Statement, which is issued in accordance with EC Directive 85/337 EEC (as amended). The potential noise impact should be assessed for all properties within 300m of each new road or proposed alteration or carriageway.

Current policy also requires an impact assessment to be carried out if there is an expected increase of 1dB $_{LA10,18h}$ from the existing road when alterations are carried out (Design Manual for Roads and Bridges, Vol 11, Section 3, Part 7, (HA 213/08 (August 2008))). The process which tends to be followed is set out in the Design Manual for Roads and Bridges (Design Manual for Roads and Bridges, Vol 11, Section 3, (HA 213/08, August 2008)). Mitigation such as optimising the route alignment and the use of noise barriers, either through landscaping or purpose built walls or fences, should be included in the road design to minimise any adverse noise impact. The impact assessment process also has regard to the protection of tranquil areas in general, through consideration of the impact on landscape.

Transport Analysis Guidance

This is published by the Department for Transport (available at www.webtag.org.uk). The guidance assists in setting objectives, identifying problems, developing solutions, creating a transport model to appraise solutions and providing general advice on the appraisal of major transport schemes.

Design Manual for Roads and Bridges Volume 11 (Environmental Assessment) (Highways Agency, 1994).

Please see above for more information.

Noise Insulation Regulations (Northern Ireland) 1995

These Regulations apply to all Department of Regional Development proposals and enable a resident, subject to increased noise from a new or altered road, to benefit from a reduction in noise level inside their homes by means of double windows, supplementary ventilation and where appropriate venetian blinds and double doors.

Land Compensation Act 1973

This provides for monetary compensation to those homeowners affected by the new or improved highway to account for any loss in value of the property that has occurred as a result of the road. The assessment, which is carried out by surveyors, is purely subjective and claims for compensation must be made within a certain period of time.

Building Regulations

The Buildings Regulations, which are administered by District Councils in Northern Ireland, ensure the safety, health and welfare of people working in and around buildings. The Department of Finance and Personnel has prepared technical guidance on their implementation.

For buildings constructed in the vicinity of noise sources such as roads, it would be appropriate for specific façade noise insulation to be a requirement of the construction, potentially with a pre-completion sound insulation test required prior to habitation. This would help to ensure that the design targets of the construction are met in practice.

British Standard 8233:199 (BS8233:1999, Sound Insulation and Noise Reduction in Buildings – Code of Practice) provides design advice for various buildings, including dwellings and offices in order to mitigate the effects of noise from road traffic. Advice is provided on what constitutes reasonable or good standard in terms of internal noise levels and on what mitigation might be used to achieve those levels.

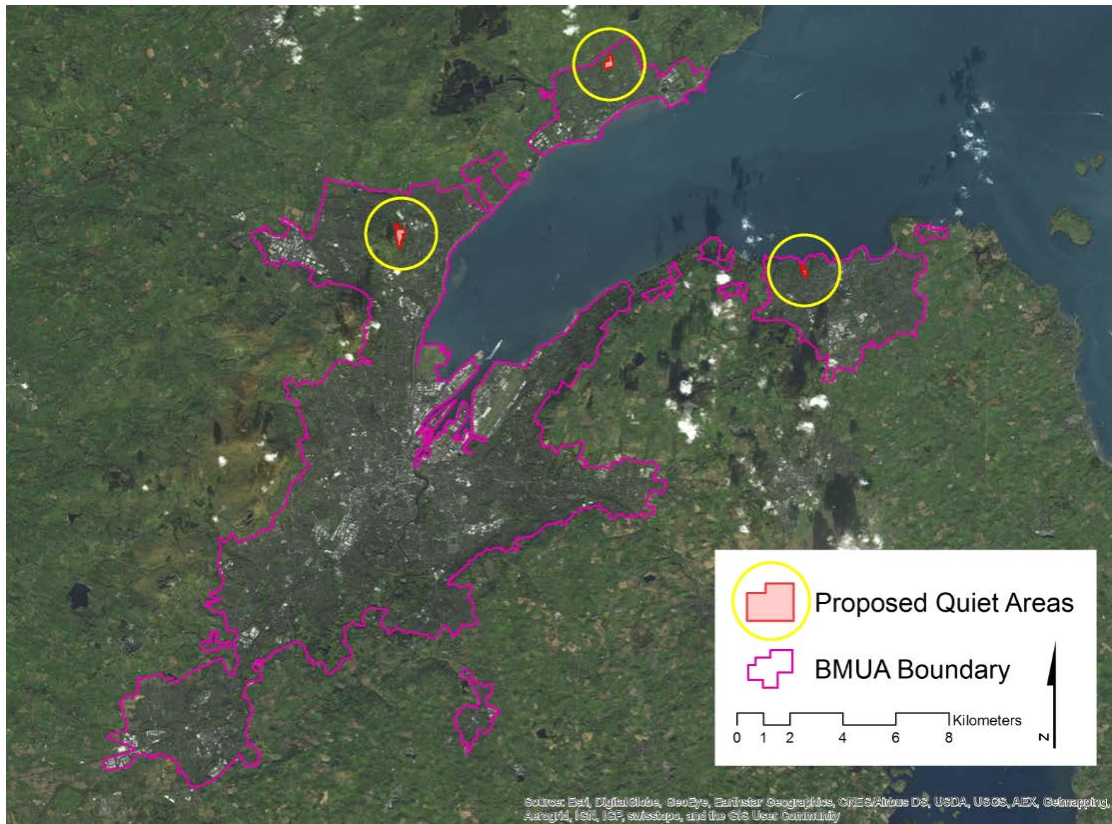
Building Bulletin 93 (BB93 Acoustics Design of Schools, A Design Guide, 2003) provides guidance on acoustics in schools including target noise levels for the indoor and outdoor environment in order to secure an appropriate acoustic environment for teaching. Following the guidelines in BB93 is one way of ensuring that new schools comply with the requirements of the Building Regulations (Northern Ireland) 2000.

IPPC Licensing

This regime applies to installations involved in energy, metal production and processing, the mineral and chemical industries and waste management. Installations require permits before operations can commence and operators must demonstrate use of Best Available Technologies. Certain activities that are required to be licensed may be subject to noise conditions. Whilst these limits have a very specific application, they have appeared in many different contexts and often form the basis for conditions in planning permissions.

Annex D - Quiet Areas

Belfast Agglomeration showing Quiet Areas



Conor Park/Stricklands Glen,

Bangor West, North Down
5.37 hectares



Bashfordlands

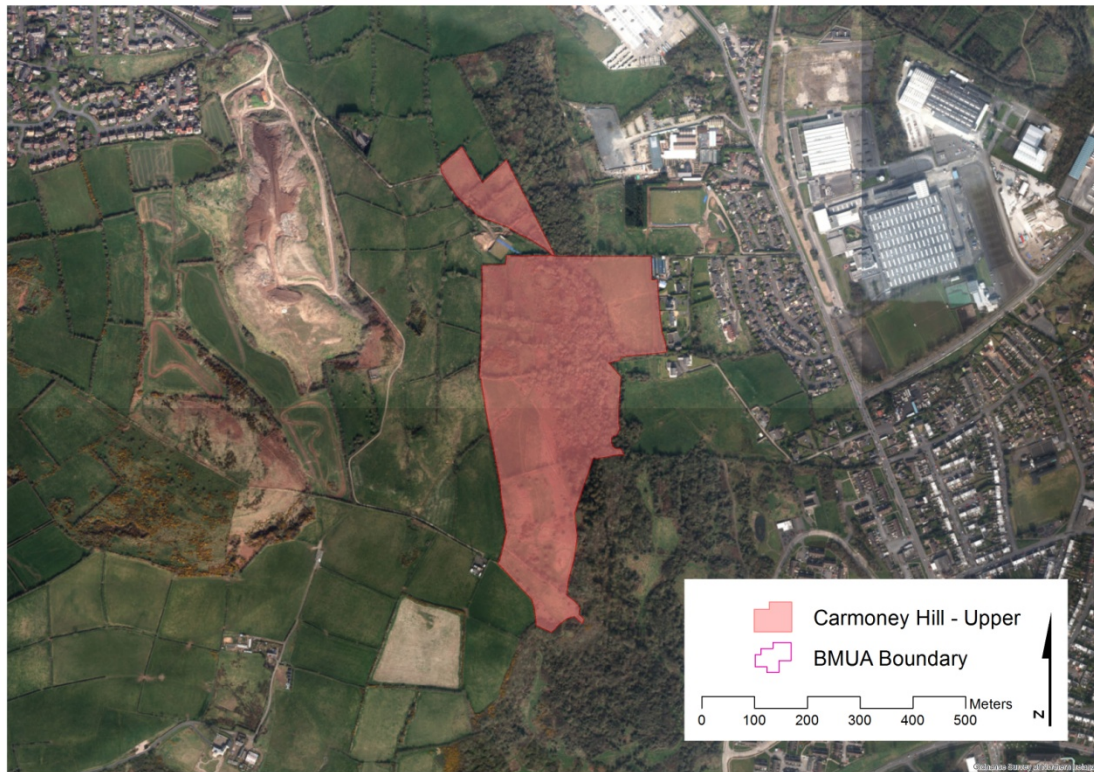
Carrickfergus

10.93ha



Carmoney Hill – Upper

Newtownabbey
16.70 hectares



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