

Draft Guidance on the Identification and Designation of Quiet Areas

Environmental Noise (Northern Ireland) Regulations 2006

September 2015

Executive Summary

Noise pollution is a growing concern in Europe. Of particular importance is noise from transport and industrial sources, which are addressed by Directive 2002/49/EC relating to the assessment and management of environmental noise, otherwise known as the Environmental Noise Directive (END).

The END has a clearly stated aim: to 'define a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise'. Thus, the END 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', as well as to preserve 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. 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. Whilst the adverse impacts of high levels of noise on health and quality of life are relatively well understood, the beneficial effects of access to quietness are less well understood and rarely explicitly acknowledged in policy documents.

A glossary of the acoustic technical terms used in this 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 Guidance

The main policy goal of the END and action planning is “to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise”. Another aim is “to preserve environmental noise quality where it is good”. Article 8² and annex V³ also emphasise the need to protect or limit noise in designated Quiet Areas. Article 8(1)(b) states that Action Plans shall protect areas that are already quiet against an increase in noise. Thus, Action Plans 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, which was transposed in Northern Ireland through the Environmental Noise Regulations (Northern Ireland) 2006 (the Regulations), has three main 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).

Regulation 40 of the Regulations requires the Department 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

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

² Noise Action Plans for first round agglomerations shall “aim to protect quiet areas against an increase in noise”.

³ States that Action Plans should include “actions which the competent authorities intend to take in the next five years, including any measure to preserve quiet areas”.

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.

outdoor sound created by human activities (i.e. environmental noise). Harmful sounds are those that negatively affect human health, such as through annoyance or sleep disturbance.

The QUADMAP EU project has defined Quiet Areas as an urban area whose current or future use and function require a specific acoustic environment which contributes to the wellbeing of the population.

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 an extension of established good practice across the UK and Europe. This Guidance sets out the criteria and methodology for the identification of Quiet Areas and highlights the mechanisms by which Quiet Areas shall be protected against an increase in noise.

In Northern Ireland it is for the Department of the Environment as the Competent Authority to identify Quiet Areas. Once the Department identified possible areas for designation as Quiet Areas (Candidate Quiet Areas (CQA)), it shall undertake a full public consultation on the list of CQA, prior to formal adoption by the Minister for the Environment. This Guidance has been used to identify the areas included in Annex D and shall be used to designate further Quiet Areas following future rounds of noise mapping.

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. A staged approach was used for the identification of CQA in Northern Ireland. Filters (criteria) were 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 Department used the following criteria which are similar to those adopted by the other parts of the UK and the Republic of Ireland.

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

An interactive GIS App was developed specifically for the purpose of applying these filters and identifying Quiet Areas.

Land Type Filter

Only publically available open spaces within an agglomeration can be considered for designation as a Quiet Area. Such areas include public parks or paths to which the public have access. It was expected that such open spaces will already be valued by local communities and they may already be managed so as to maintain quietness. The Department used GIS shape files of public parks and open spaces provided by the district council's whose areas fall within agglomerations.

The resulting list of public open spaces in agglomerations could include:

- Recreational areas/play parks;
- Playing fields;
- Town/city public parks and gardens;
- Residential/pedestrianised areas with seating/paved areas where people can congregate;
- Squares;
- Cemeteries/the grounds of places of worship;
- River banks/canals;
- Seafronts/promenades/beaches; and

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

- Other open areas such as national parks, AONB, country parks, nature reserves and beaches, should any fall within the agglomeration.

Noise Level Filter

The Department then used the consolidated noise map to identify the areas of open space within the agglomeration which have noise levels below 55 dB Lden⁷.

Minimum Area Filter

Following this, the Department of the Environment applied a minimum area filter of 5 hectares to the public parks and open spaces database that have noise levels less than 55 dB Lden. This ensures that smaller areas are considered for designation.

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

3. Consultation and Designation

The Department will undertake a full public consultation on the list of Candidate Quiet Areas and will aim to allow 8 weeks for the general public to have sufficient time to participate in the process.

District Councils have a particular role in the consultation process. As the noise maps indicate modelled noise levels (not measured levels) and to ensure the accuracy of the land types selected as Candidate Quiet Areas, district council should consider the appropriateness of each Candidate Quiet Area for designation and revert to the Department with comments by the end of the consultation period. If the Department does not receive a response from a district council, the Candidate Quiet Areas will be put forward for designation by the Minister.

District council Environmental Health Officers may wish to visit Candidate Quiet Areas to ensure that the public have access to the land, that it remains open space and that it does not experience high levels of noise which are not reflected in the noise maps. Environmental Health Officers can check that there are no new noise sources that have been introduced since 2011 (when the round two noise maps were created). Officers can also check that there have been no changes in buildings or topography which may have increased the noise experienced within the area.

During the consultation process district councils should consult their Local Development Plans to determine whether or not any of the Candidate Quiet Areas or areas close to them have been identified for future development. Where conflict with a plan proposal arises, it may not be appropriate to designate the area as a Quiet Area.

The Department will examine and reflect upon the comments received during the consultation and may alter the list of Candidate Quiet Areas which is put forward to the Minister for adoption. Once the list is adopted it will be published by the Department as a public document in an electronic format within 28 days of being informed that the Quiet Areas have been designated.

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 the sources covered by the END⁸. They should monitor the noise levels within Quiet Areas and coordinate or undertake any necessary mitigation activities, such as noise barriers and take enforcement action in situations where noise levels have become unacceptable.

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

⁸ Road, rail, airports and industry within agglomerations

In addition to this, 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 forthcoming Strategic Planning Policy Statement for Northern Ireland (SPPS)⁹ will provide additional strategic planning guidance on noise as a material consideration in the planning process. When published in final form the SPPS will be 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 Ireland¹⁰. The third aim of the Statement is “where possible, contribute to the improvement of health and quality of life.” The protection of Quiet Areas assists in delivering this aim.

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 END¹¹, may adopt measures, such as noise limits or traffic management systems, to prevent noise increases having an adverse affect on Quiet Areas. Competent Authorities may also need to review their Action Plans following the designation of Quiet Areas to ensure that there is no conflict. 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.

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.

⁹ Strategic Planning Policy Statement for Northern Ireland – Planning for Sustainable Development (DOE) (under development)

¹⁰ Noise Policy Statement for Northern Ireland, September 2014

¹¹ 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

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 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.
Agglomeration (subsequent rounds)	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.
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

	<p>Plans.</p> <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).
L _{evening}	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}	The L _{Aeq} over the period 0700 – 2300, local time (for strategic noise mapping this is an annual average).

	The World Health Organisation's Guidelines for Community Noise 2000 recommend a guideline limit for L_{night} of 45 dB(A) outside an open bedroom window to avoid sleep disturbance.
Lden	The LAeq 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 actually 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 LA10,18h 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.

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 Section3 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 Noise & Vibration Control on Construction and Open Sites

Part 1 1997 - Code of Practice for basic info and procedures for noise & vibration control

Part 2 1997 - Guide to noise & vibration control legislation for construction and demolition including road construction and maintenance

Part 3 1997 - Code of Practice applicable to surface coal extraction by open cast methods

Part 4 1992 - Code of Practice for noise and vibration from piling operations

Part 5 1997 - Code of Practice applicable to surface mineral extraction (except coal) sites

BS 4142: 1997 - Method of rating industrial noise affecting mixed residential and industrial areas

BS 6472 1992 - Guide to Evaluation of human exposure to vibration in buildings (1Hz to 80 Hz)

BS 7385 Part 1 1990 – Evaluation and Measurement for Vibration in Buildings – Guide for measurement and evaluation of their effects on buildings
BS 7385 Part 2 1993 - Evaluation and Measurement for Vibration in buildings - Guide to damage levels from ground borne vibration

BS 7445 Part 1: 1999 - Description and measurement of environmental noise
BS 7445 Part 2: 1999 - Guide to the acquisition of data pertinent to land use
BS 7445 Part 3: 1999 - Guide to the application of noise limits.

BS 8233 1999 - Sound Insulation and noise reduction for buildings – Code of Practice

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.

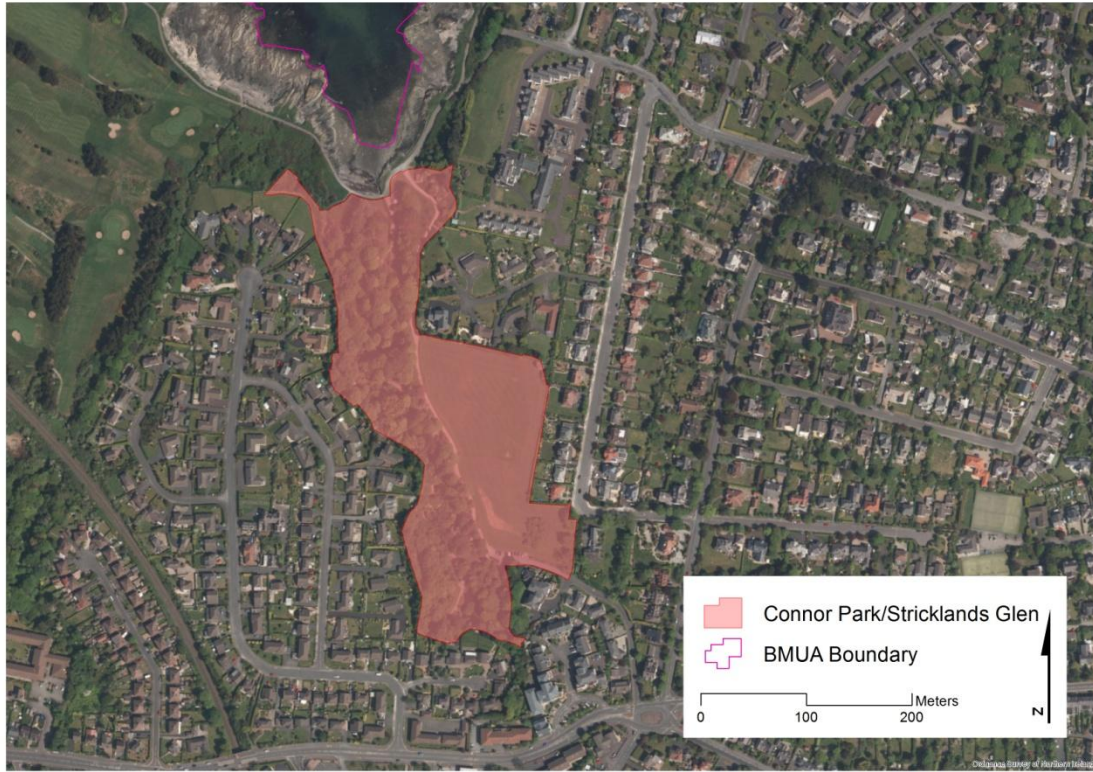
Annex D - Candidate Quiet Areas - subject to public consultation and adoption

Belfast Agglomeration showing Quiet Areas



Conor Park/Stricklands Glen,

Bangor West, North Down
5.37 hectares



Tullycarnet Park and Bowling Green,

Gilnahirk, Castlereagh
6.05 hectares



Ligoneil Park

Ligoneil Road, Belfast
7.69 hectares



Bashfordlands

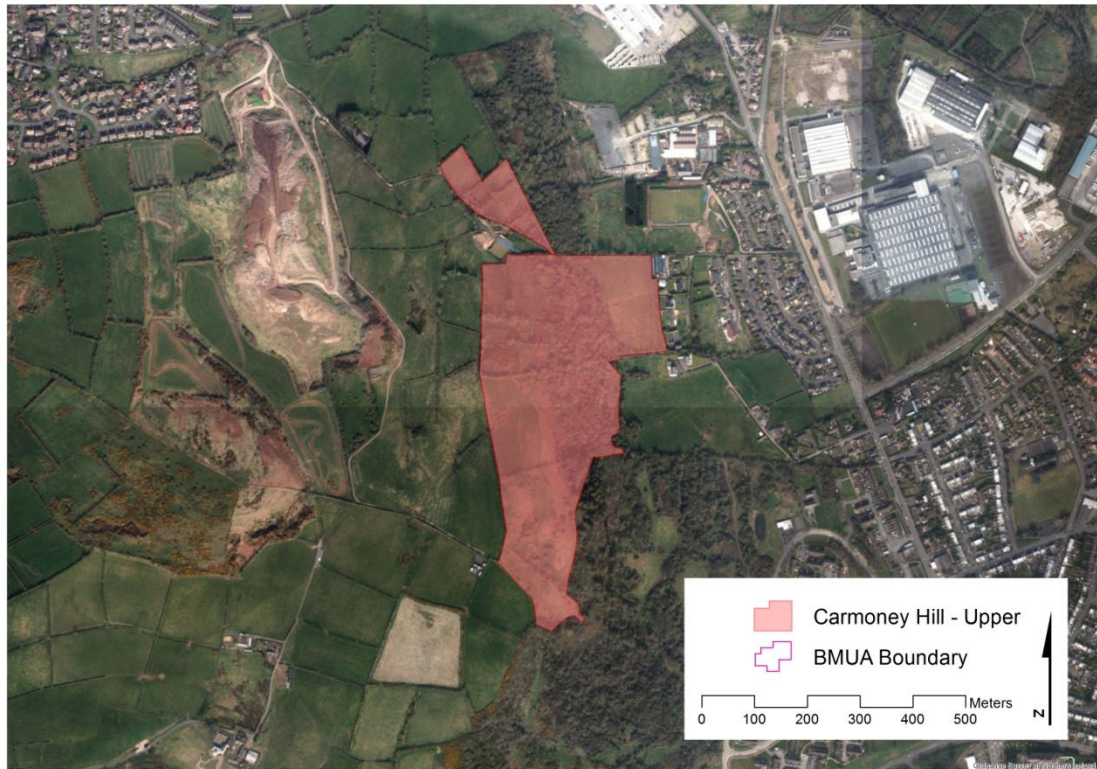
Carrickfergus

10.93ha



Carmoney Hill – Upper

Newtownabbey
16.70 hectares



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