

Briefing Note

Environmental Protection Agency Implementation of Environmental Noise Directive 2002/49/EC Contract Ref Noise/06/01

Title: Briefing Note for Action Planning Authorities on Noise Action Plans
Date: 7 March 2008
Status: Draft for Discussion

Aims & Objectives

This briefing note aims to provide an overview of the requirements of the Environmental Noise Regulations, S.I. No. 140 of 2006, particularly with regard to the requirements for the development of Noise Action Plans by the Local Authorities designated under the Regulations as the Action Planning Authorities. This document sets out the background context of the Directive, Reporting Mechanism and Regulations before presenting an initial discussion regarding the proposed approach to Noise Action Planning under the first round.

1. Background

As part of the first phase of work under the Environmental Noise Regulations, 2006 (Regulations) the designated Noise Mapping Bodies were required to undertake the assessment of noise levels from roads, railways, airports and industry within the agglomeration of Dublin, and from major roads across Ireland.

Using these noise level results with population distribution information derived from census data the noise exposure of the population living within the assessment areas was estimated.

The EPA was required to report to the European Commission relevant information on population exposure to noise. This information was delivered to the EC in December 2007.

The second phase of the work under the Regulations requires certain designated Action Planning Authorities to produce Action Plans no later than 18 July 2008. The EPA is required to submit summaries of the Action Plans to the EC no later than 18th January 2009.

2. EC directive 2002/49/EC

Directive 2002/49/EC of the European Parliament and of the Council relates to the assessment and management of environmental noise.

The aim of the Directive is:

“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”

and to that end three stages are set out:

- Undertake strategic noise mapping to determine exposure to environmental noise;
- Ensure information on environmental noise and its effects are made available to the public;
- Adopt action plans, based upon the noise-mapping results, with a view to 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.

Strategic noise mapping was undertaken during 2007 by the designated noise mapping bodies. Information on environmental noise, including the results of the strategic noise mapping, and its effects will be made available to the public by the EPA in the near future. Noise action plans need to be developed and adopted during the forthcoming 10 months.

3. Reporting Mechanism

The Member States within the EC need to submit the results of the strategic noise mapping and action planning to the commission. To this end the EC have published the recommended Electronic Noise Data Reporting Mechanism (ENDRM) which sets out 11 Data Flow templates covering the Member State's (MS) reporting obligations set out in the Directive. The Data Flows cover the first and second round implementations of the END with deadlines ranging from 2005 to 2014.

The reporting mechanism may be downloaded from the CIRCA website:
http://circa.europa.eu/Public/irc/env/d_2002_49/library?l=/reporting_mechanism/reporting_mechanism&vm=detailed&sb=Title

The summaries of noise action plans are to be submitted by 18th January 2009 using Data Flow 7 (DF7).

- DF7 by 18 January 2009
Action plans related data as listed in annex VI for major roads,

railways, airports and agglomerations concerned by 1st round + Any criteria used in drawing up action plans

- Per agglomeration $\geq 250,000$ inhabitants, including:
 - Agglomeration Roads
 - Agglomeration Rail
 - Agglomeration Airports
 - Agglomeration Industry
- Per major airport $\geq 50,000$ movements/y
- For overall major roads ≥ 6 millions vehicles/y
- For overall major railways $\geq 60,000$ trains/y

The EPA and DoE will therefore be liaising with the Action Planning Authorities in order to collate the Action Planning information required to report under DF7.

Appendix 1 of this briefing note includes extracts from the ENDRM which sets out the reporting requirements for DF7.

4. Regulatory Requirements

EC Directive 2002/49/EC has been transposed to the Environmental Noise Regulations 2006, S.I. No. 140 of 2006. These Regulations set out to designate the competent authorities and define their responsibilities.

Selected extracts of the Regulations are set out in Appendix 2 as relevant to the Action Planning process. Some of the key aspects will be reviewed here as material to the discussion set out below.

Section 3 – Interpretation

- “Acoustical planning” is defined as a “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”;
- “Action plan” is defined as “a plan designed for the purpose of managing noise issues and their effects, including noise reduction if necessary”;
- “Quiet area in an agglomeration” is defined as “an area, delimited by an action planning authority following consultation with the Agency and approval by the Minister, where particular requirements on exposure to environmental noise shall apply”; and
- “Quiet area in open country” is defined as “an area, delimited by an action planning authority following consultation with the Agency and approval by the Minister, that is undisturbed by noise from traffic, industry or recreational activities”.

Section 4 – Objectives and Scope

- (1) These Regulations provide for the implementation in Ireland of a common approach within the European Community intended to avoid,

prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise.

Section 7 – Action Planning Authorities

- The following shall be designated action planning authorities for the purpose of making and approving action plans, in consultation with the Agency and the noise-mapping body for the noise-map involved.

Section 11 – Action Plans

- (3) (b) Each action plan shall address priorities which: (i) may be identified on the basis of exceedances of any relevant noise limit value or other relevant criteria established by the Agency in accordance with sub-article 4, and (ii) shall, in the first instance, address the most important area or areas, as the case may be, established by strategic noise mapping.
- (4) Without prejudice to any relevant statutory limit value for noise, the Agency may, following consultation with noise-mapping bodies and action planning authorities, establish other relevant criteria for action plan priorities for road-traffic noise, rail-traffic noise, aircraft noise around airports and noise on industrial activity sites, and shall, no later than 18 July 2013, inform the Minister, the Minister of Transport and the Commission of such criteria.

These elements of the Regulations result in the following requirements:

- The action plans need to include a means of determining when noise reduction is necessary, or outline an approach for how the relevant criteria may be developed (Section 3);
- Definitions for quiet areas are required to enable the delineation of quiet areas to be consistent between authorities, and enable approval by the EPA and Minister (Section 3);
- An order of priority for “avoid, prevent or reduce” should be agreed and form part of the Action Plans, along with a framework within which these objectives may be met (Section 4(1));
- The Noise Mapping Bodies have a statutory obligation to collaborate with the Action Planning Authorities during the development of the Action Plans (Section 7);
- The EPA is required to identify “any relevant noise limit value or other relevant criteria” (Section 11 (3)(b)(i) which are to be developed in consultation with the NMBs and APAs and submitted to the Minister by 18 July 2013 (Section 11(4));
- A means of interpreting the strategic noise maps needs to be developed which identifies “the most important area or areas” (Section 11 (3)(b)(ii);

5. Acoustical Planning

The Regulations define the term “acoustical planning”, therefore it is considered appropriate to review current national guidance and practice in this area, as such provisions could become the tools available for assessment and protection within the scope of an action plan.

The I-INCE publication “A Global Approach to Noise Control Policy” classifies three areas which require noise policies:

- Occupational Noise
 - Unwanted sound in the workplace, indoors or outdoors, caused by sources in the vicinity of a workplace;
- Community Noise (also referred to as environmental noise)
 - Unwanted sound in a non-occupational setting, indoors or outdoors, caused by sources over which an individual has little or no control, including sounds produced by neighbours; and
- Consumer Product Noise
 - Unwanted sound at the position of a user or bystander of a noise-producing product over which an individual may have some control, including noise in passenger compartments of vehicles, but excluding occupational and community noise.

As the Regulations are concerned only with Community Noise, there will be no further discussion on occupational or consumer product noise.

Within Community Noise there are a number of individual items which require consideration and management:

- Community Noise (also referred to as environmental noise)
 - Within the planning process:
 - New roads, railways, airports, industry or recreational activities adjacent to residential properties, noise sensitive premises such as schools or hospitals, or recreational spaces;
 - New residential properties or noise sensitive premises such as schools or hospitals, adjacent to existing roads, railways, airports, industry or recreational activities;
 - The development of mixed residential/commercial use buildings, and multi-part residential buildings;
 - The management of noise levels within noise sensitive properties, such as schools and hospitals, to address external noise break-in, as well as room to room transmission and noise levels within public spaces;
 - Outside the planning process:
 - Noisy neighbours, barking dogs
 - Gardening machinery, construction activities, ice cream vans and street cleaning
 - Air-conditioning equipment

- Public house, night clubs, restaurants or other recreational activities;
- Industrial operations, workshops and factories.

A fully encompassing noise management policy needs to provide guidelines, targets, and possibly limits for each of these aspects, backed up by legislative powers and Regulations as appropriate.

6. Current Community Noise Management Situation

The following section provides a brief overview of the situation as it currently stands within Ireland.

Community Noise

There are a number of measures currently in place which address particular aspects of community noise:

- ***Environmental Protection Agency Act 1992***
The existing statutory provisions have primarily come about under the Environmental Protection Agency Act of 1992. Sections 106 to 108 of the Act are of direct relevance, and may be summarised as follows:
 - 106 gives the relevant Minister certain powers to regulate noise that may give rise to a nuisance or be harmful to health or property ;
 - 107 gives powers to local authorities and the EPA to take steps to control noise;
 - 108 sets out a process whereby noise issues may be taken to the District Court, which may make an order requiring that the person or body responsible for the noise take steps to eliminate or ameliorate the noise in question.

It is considered appropriate that all Action Planning Authorities should include a policy statement regarding their aims and objectives when utilising the provisions within the EPA Act. This will help to promote implementation of the Act.

It is noted that at present there is no clear official or statutory guidance which could help promote the effectiveness or clarity of the provisions within the Act, however within the framework of the Regulations the EPA may consider it appropriate to develop guidance in the future.

- ***Planning***
Whilst Local Authorities 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 tends to lead to inconsistencies between planning applications, and between Local Authorities.

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*”.

Notwithstanding this statement with regard to the document’s application, the lack of other guidance means that the approach and limits outlined therein are applied to other scenarios. For example, the Consultants have seen a number of planning conditions for new residential developments alongside existing roads that call for the façade level to be limited to the design goal given in the NRA document. This is not the correct approach and has led to significant difficulties. The Consultants have also seen the NRA’s construction noise and vibration limits reproduced extensively. The concern is that they are becoming a *de facto* standard in the absence of other relevant guidance, and are thus likely to be used out of context, and unlikely to lead to the ends required or envisaged.

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, are carefully considered and suitable conditions applied to ensure that they do not just produce an increase in the population exposed to high level 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.

- ***IPPC Licensing***
 Certain activities that are required to be licensed may be subject to noise conditions. The relevant guidance is set out in the EPA publication “*Guidance Note for Noise in Relation to Scheduled Activities*”. This document contains suggested noise limits of 55 dB(A) $L_{Ar,T}$ for daytime and 45dB(A) $L_{Aeq,T}$ for night-time; said limits to be applied to “*sensitive locations*”. Of note is that in the absence of any other form of official guidance, these limits have appeared in many different contexts and often formed the basis for conditions in planning permissions, without there necessarily being any thorough test for their appropriateness in each situation.

- ***Building Regulations***
 The current Irish Building Regulations call for certain constructions to offer “reasonable resistance” to both airborne and impact sound. In the absence of any form of objective criterion, reference is often made to the “Similar Construction” method described in Technical Guidance Document E; in fact, many people incorrectly believe that the guideline values given as part of this method are in fact required by the Regulations themselves. This confusion and lack of concrete guidance

has contributed to the problems where properties are constructed in high noise level environments, frequently arising as a result of flawed construction techniques and/or poor workmanship.

For buildings constructed in the vicinity of noise sources it would be appropriate for specific façade noise insulation values to be a stated 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.

Summary

This brief overview of the current coverage of legislation, Regulations, and guidance suggests that whilst there is not a cohesive national policy managing the approach to environmental noise. Similarly there are many situations for which there are currently no direct guidelines or legislation.

Whilst the EPA and the NRA have made progress in certain areas, the guidance or limits which do exist only cover a restricted number of the possible situations where noise is an issue to be addressed, and this increasingly means that these existing measures are being quoted out of context.

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.

7. A Possible Framework for Noise Action Planning

The aims and objectives of the Directive state that the adoption of action plans should be concerned with:

“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 statement creates responsibility to act in two scenarios which are to be addressed by the action plans:

- Protection of the future noise climate
- Reduction of the existing noise climate where necessary

If the elements of these two scenarios are considered, the stages and actions within each can be seen to be quite different:

- Protection of the future noise climate
 - Quiet areas are to be defined, identified and designated
 - What constitutes a quiet area?

- The noise maps can be used to help indicate candidate quiet areas;
 - Quiet area status should be confirmed prior to designation;
- Prevent increasing noise levels
 - Where exposure is above “quiet area” status, and below “harmful” levels noise level increases should be prevented;
 - Planning policy and practice
 - Noise to people
 - People to noise
 - Sound insulation
 - Noise nuisance
- Reduction of the existing noise climate where necessary
 - At what extent of noise exposure is action necessary?
 - Do the noise maps indicate that this exposure has been exceeded?
 - Is the population exposed to these indicated noise levels?
 - Where necessary, what measures may be undertaken to reduce population exposure?

In the following two sections these two scenarios are discussed further.

8. Protection to the future noise climate

a. Quiet Areas inside agglomerations

Under the Regulations it is required to delimit quiet areas within agglomerations.

The current strategic noise maps offer complete coverage inside an agglomeration, and therefore may assist with the identification of quiet areas. However there is no accepted definition of what constitutes a quiet area within an agglomeration, and thus a policy approach and some form of definition needs to be developed.

There are a number of possible means of defining quiet areas within agglomerations, from purely noise related criteria, to wider definitions which take into account related aspects such as land use, local amenity value, accessibility and historic usage.

It is suggested at this stage that consideration is given regarding a means of defining quiet areas within agglomerations. In order to prompt discussion, the following approach may be considered as one possible option.

The areas of the noise maps below 55 dB L_{day} could be cross referenced to a dataset of public open spaces to produce a list of candidate quiet areas. This list

could then be taken to public and authority consultation before a final list is drawn up for submission to the EPA and Minister for designation.

Once designated an accompanying policy statement would be required within the action plan setting out to what extent they are to be protected from noise, and now this protection could be delivered e.g. whether future noise reductions are proposed, or whether planning controls will be exercised to prevent any increase in environmental noise.

b. Quiet Areas in open country

Under the Regulations it is required to delimit quiet areas in the open country.

It is suggested that at present the open countryside requirement for an area “that is undisturbed by noise from traffic, industry or recreational activities” is more in line with a definition of tranquillity, rather than having any relationship with quiet areas inside agglomerations.

Furthermore whilst the current strategic noise maps offer complete coverage inside an agglomeration, and therefore may assist with the identification of quiet areas, they only offer partial coverage of the open countryside, and by definition it is areas in the vicinity of major roads.

It is proposed at this stage that previous work on the identification of tranquil areas in Ireland is reviewed and possibly extended in the future, and be cross referenced with other work on tranquillity being undertaken across the EU.

It is the view of the Consultants that it will not be possible to clearly identify quiet areas in the open country from the results of the first round of strategic noise mapping, and therefore it will not be possible to identify such areas within the first versions of the action plans. Although as an understanding of the means of identification, and the policy requirements for quiet areas in the country develops, it may be possible to include such areas in later revisions of action plans.

c. Planning

As discussed above in section 5, there is currently little in the way of detailed advice, guidance or regulation regarding the management of noise during the Planning process. If the future noise environment is to be protected, there is a requirement for setting out national guidelines for noise management for two types of scenarios:

- Bringing people to noise
 - New housing, hospital, school, nursing home etc developments near to existing road, rail, industrial or airport noise;
 - Noise levels outside the façade, in gardens, in public open spaces;
 - Noise levels inside the building.

- Bringing noise to people
 - New or altered roads, railways, industrial sites or airports which would alter the noise environment in the vicinity of noise sensitive locations.

Experience in other EU countries suggests that the guidance and limit values for the two types of scenarios are not necessarily the same, and that extent of change has as much importance as the final absolute level.

d. Sound Insulation

To complement the planning guidelines on exterior noise levels, it would be appropriate to introduce façade noise insulation requirements into the Building Regulations, and possibly follow the example of other EU countries where some form of pre-completion testing is mandatory for new and change of use developments.

e. Noise Nuisance

It may be appropriate to extend the applicability of the Environmental Protection Agency Act and clarify its application and use for situations where members of the public feel forced to take action against a local source of noise impact.

9. Reduction of the existing noise climate where necessary

Reducing the existing environmental noise climate where necessary requires the development of a policy on how the requirements for action will be assessed, and carried out where appropriate.

a. At what extent of noise exposure is action necessary?

The first step is probably the most significant as there is currently no existing precedence to indicate a suitable point of action. It is therefore necessary to firstly develop policies, and/or limits, which produce an indication of when it is deemed necessary to reduce noise levels.

i. National limits

Probably the most straightforward approach would be the introduction of noise limit values. These may seem simplistic, but it is first important to understand what values may be appropriate for the level of population and activity within the country, or county. What may be appropriate in The Netherlands, Finland, Sweden or Denmark may not be appropriate for Ireland.

Noise limits in other countries have often resulted from extensive field studies and the assessment of population noise dose/response relationships.

Should national noise limits be introduced, it is recommended that these are clearly for use within noise action planning for the assessment of existing noise climates, and should complement

the noise criteria proposed for Planning controls in section 7c above.

It should also be considered that noise limit exceedence alone is not necessary a problem if there is no population actually exposed to those noise levels. Therefore any noise limit values should be tested against façade noise level values of sensitive buildings.

ii. Nuisance assessment

A second approach could be to base the assessment for action upon an assessment of noise nuisance. This would combine the noise levels, with the dose response relationships and the population distribution. There are some examples of this type of assessment resulting in nuisance distribution maps, although they are not currently robustly tested.

iii. Noise scoring

Noise scoring has been suggested as another means of assessing noise impact upon the populations, and is often used to compare two scenarios, or two differing sites. Using the noise mapping results and the population distribution information, it provides a single number order of merit which supposedly makes decision making more straightforward.

This approach may be appropriate where there are multiple areas which appear to have high noise exposure however time or budget constraints require some form of ranking to be undertaken in order to determine which locations are addressed initially.

It is possible that any selected approach may well combine elements of each into several stages, and should probably be developed in an iterative manner which includes testing against the results indicated from the strategic noise maps in order to gain an understanding of the regulatory impact.

b. Do the noise maps indicate that this exposure has been exceeded?

The approach set out within the Directive is to first undertake strategic noise mapping within cities, and for major sources outside cities, and then assess the numbers of people exposed to noise within 5 dB bands. The strategic noise mapping process is a predominantly technical process requiring an array of different input datasets across large geographical areas. These datasets are combined to form 3D models, through which an assessment of noise propagation is undertaken using specialist computer software systems.

The noise level is assessed on a regular grid pattern across the model, and these results are used with an estimated population distribution model to assess the numbers of people exposed. The nature and extent of the

various datasets required, coupled with the fact that 2007 was the first time this had been attempted on such a large scale, inevitably means that the results provide a best estimate, rather than a complete and wholly accurate account.

Within the context of the Directive and its requirement for the strategic noise maps to “*provide a representation of the noise levels perceived within that area*” (Para 10), and the development of strategic policy it is important to understand the scale of the uncertainties inherent within the results at this stage, rather than strive for an unachievable goal of total accuracy. Knowledge of the strategic noise mapping process and uncertainties will be beneficial during the development and execution of noise action plans.

The results of the strategic noise mapping process help to gain an understanding of:

- where environmental noise is located;
- the approximate magnitude of noise levels within the assessment area; and
- approximately how many people are exposed to differing levels of environmental noise.

c. Is the population exposed to these indicated noise levels?

i. And how many people are exposed in these areas?

With knowledge of the population distribution it would be possible to determine the number of people exposed above the criteria. Indeed this information may be present as part of the assessment criteria if the approach utilised includes population.

ii. Are the population actually experiencing these indicated noise levels?

Prior to the design of noise mitigation measures and the commitment of budget to undertake any necessary actions, it is considered advisable to confirm that the noise levels indicated by the strategic noise maps are being experienced by the population within the study area.

This could be undertaken by reviewing and refining the noise models, if appropriate, or by undertaking field survey work to measure noise levels prior to the commencement of any works. In a best practice situation both would probably be done, with measurements repeated after any actions are carried out in order to confirm the delivered results.

d. Where necessary, what measures may be undertaken to reduce population exposure?

At this stage a review of potential noise mitigation schemes should be undertaken, and a cost benefit analysis undertaken.

This would probably involve scenario testing using the noise models to determine estimates of the noise reduction from design options. However there are a number of potential noise reduction measures which can be difficult to assess within the current calculation models, such as enhanced barrier design, quiet pavement surfaces and rail grinding for example.

10. Possible Noise Mitigation Measures

There are a wide range of potential noise mitigation measures, some of which may act at a national or regional level, others which may be purely localised. Likewise there are a number of levels of authority which may be capable of making actions.

For example:

- vehicle noise emissions and tyre noise regulations would be set at EU level;
- national planning guidance or noise regulations would be set at national level;
- transport policy objectives may be set at regional level;
 - improved public transport
 - getting people out of cars
 - increasing bus, train, bicycle journeys
- at local authority level there are powers to act:
 - Replace diesel vehicles with Compressed natural gas / electric;
 - Truck routes;
 - Night time delivery restrictions or limits;
 - Planning permissions;
 - Enforcement of speed limits;
 - Road closures / traffic routing;
 - Road re-surfacing;
 - Planning zones;
 - Façade insulation requirements;
 - Noise barriers;
 - Public liaison groups; and
 - Long term targets.

There are various examples of possible noise mitigation measures within the EC funded projects EffNoise and QCity.

11. Requirements for Noise Action Plans

Annex V of the Directive and Schedule 4 of the Regulations set out the same minimum requirements for noise action plans, see Appendix 2.

Set out below is the list of minimum requirements, along with some explanatory notes where appropriate:

- a description of the agglomeration, the major roads, the major railways or major airports and other noise sources taken into account,
- the authority responsible,
 - the designated competent authority under the regulations who have made the Action Plan
- the legal context, including:
 - Regulations
 - National noise management regulations, laws or guidance
 - Regional / local noise management regulations, laws or guidance
- any statutory limit values in place,
 - as reported to the EC previously
- a summary of the results of the noise mapping,
 - tables of statistics reported to the EC, along with the >55 and >65 dB contours reported to the EC
- an evaluation of the estimated number of people exposed to noise, identification of problems and situations that need to be improved,
 - estimated number of people exposed above the reported limit values, or
 - estimated number of people exposed above any EPA set threshold level; or
 - estimated number of people exposed based upon noise scoring matrix.
- a record of the public consultations organised in accordance with article 11(6),
- any noise-reduction measures already in force and any projects in preparation,
- actions which the action planning authorities intend to take in the next five years, including any measures to preserve quiet areas,
 - these could be physical on the ground actions e.g. build a barrier, or
 - legislative and management actions e.g. introduce defined noise limits within the planning process, or mandatory testing of façade insulation, or introduction of planning zones etc
- long-term strategy,
 - key aims and objectives of the action plans over the next 20 (for example) years
- financial information (if available): budgets, cost-effectiveness assessment, cost-benefit assessment,
 - if available
- provisions envisaged for evaluating the implementation and the results of the action plan.
 - Current planned processes for evaluating to what extent the Action Plans have produced change.

As the noise action plan will be a strategic policy document of the Local Authority, it is also important that it integrates and supports other strategic policies such as:

- Air Quality
- Sustainable Transport
- Climate Change
- Open Spaces
- Spatial Data Infrastructure
- Regional / City Development Plans
- Regeneration Plans
- Energy Action Plans
- Refurbishment Policy for Council housing stock
- Planning Control
- Noise Abatement Policy

It is also appropriate to investigate the possible synergies and conflicts which will exist between the different policy areas. Some actions may produce lower noise but be detrimental to air quality objectives, whilst some synergies in areas such as climate change and sustainable transport may provide funding sources and political backing.

12. Summary and Conclusions

At this stage it is suggested that noise action plans could be umbrella strategic policy documents which contain a number of key goals and objectives regarding the protection of the future noise climate and a decision matrix for the used to assess the possible reduction of existing noise levels.

As discussed above many of the key building blocks required to protect the future environmental noise climate need to be developed, and will not be in place for the initial action plans, however the necessary guidelines could be developed in time for the EPA report to the Minister due no later than 18 July 2013.

Following this review, and outline of a potential approach to action planning it can be seen that the following policies need to be developed:

- The type and extent of support which the Noise Mapping Bodies will extend to the Action Planning Authorities;
- Means by which the Dublin agglomeration action plan shall be developed;
- Assessment criteria for quiet areas within an agglomeration;
- Assessment criteria for quiet areas within open country;
- Protection to be afforded to quiet areas;
- An order of priority for “avoid, prevent or reduce” environmental noise;

- Means by which the future noise climate will be protected, possibly including:
 - Guidance under the Environmental Protection Agency Act;
 - Assessment of relevant noise limit values or other relevant criteria;
 - Planning guideline;
 - Building regulations; and
 - Noise nuisance legislation.
- Means of assessing whether noise reduction is necessary;
 - Means of interpreting the strategic noise maps which identifies the most important area or areas;
 - Noise limits or noise scoring criteria;
 - Process of reviewing indicated noise levels;
 - Range of potential noise mitigation measures;
 - Cost benefit analysis; and
 - Budgets for action.
- Aims and objectives for noise action plans.

Simon Shilton and Chris Dilworth
7 March 2008

Appendix 1: Extract from ENDRM section 5.2 Reporting Major Road Information

5.2.7 Data Flow 7 (and 10) – Action Plans

Name	Data Flow 7 (and 10), Action Plan Summary - Major Roads
Reporting Naming Convention	<CountryCode>_<Reporting Entity Unique Code>_DF7_Summary_MRoad (or <CountryCode>_<Reporting Entity Unique Code>_DF10_Summary_MRoad for the second implementation and thereafter)
Short Description	Data Flow 7 (and 10), Action Plan summary, allows Member States to report the document detailing the action plan summary.
Methodology for obtaining data	<p>European Parliament and Council Directive 2002/49/EC, relating to the assessment and management of environmental noise requires data and reports from Member States to be supplied to the European Commission.</p> <p>In Data Flow 7 (and 10), Member States must report action plan related data. Data Flow 7 (and 10) detailed in this data specification is related to the Action Plans summary document. This data specification details the table structure for Member States to supply this information. The table in this specification must contain the name of the associated written summary report, which must be supplied electronically with the submission. A Microsoft template is provided separately to cover this (see 6.1.4).</p> <p>The table must be supplied with supporting xml metadata compliant with the current European Environment Agency, Dublin Core Metadata Element Set (http://cr.eionet.europa.eu/dcmes.jsp).</p>

Columns in table:

Field Name	Field Definition	Methodology	Data Specification
Reporting Entity Unique Code	A single character Unique code assigned by the Member State to each Reporting Entity.	The same code as defined in DF0_MRoad	Datatype: string Minimum size: 1 Maximum size: 1 Minimum value: a Maximum value: z
Name of Action Plan Summary report	The full name of the action plan, the author/publisher of the summary report and date of production of the summary report.	Name formatted as 'fullname_author(publisher)_DD_MM_YYYY' An electronic copy of the summary report must be supplied separately with the submission to the European Commission	Datatype: string Minimum size: 1 Maximum size: 255
Cost of Action Plan	The total implementation cost of the noise action plan	Cost in EUROS	Datatype: integer
Date of adoption	The date of adoption of the action plan	Date formatted as 'DD_MM_YYYY'	Datatype: string Minimum size: 10 Maximum size: 10
Date of Completion	The date of completion of the action plan	Date formatted as 'DD_MM_YYYY'	Datatype: string Minimum size: 10 Maximum size: 10

Number of people experiencing an improvement in environmental noise	The number of people experiencing an improvement in their environmental noise situation	Number of people living in the dwellings which have actually benefited from noise reductions	Datatype: integer
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Appendix 2: Selected extracts from the Environmental Noise Regulations 2006, S.I. No. 140 of 2006

Interpretation

3 (1) In these Regulations, unless the context otherwise requires:-

“acoustical planning” means 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;

“action plan” means a plan designed for the purpose of managing noise issues and their effects, including noise reduction if necessary;

“quiet area in an agglomeration” means an area, delimited by an action planning authority following consultation with the Agency and approval by the Minister, where particular requirements on exposure to environmental noise shall apply;

“quiet area in open country” means an area, delimited by an action planning authority following consultation with the Agency and approval by the Minister, that is undisturbed by noise from traffic, industry or recreational activities;

Action Planning Authorities

7 The following shall be designated action planning authorities for the purpose of making and approving action plans, in consultation with the Agency and the noise-mapping body for the noise-map involved: -

- (a) for the agglomeration of Cork, Cork City Council and Cork County Council;
- (b) for the agglomeration of Dublin, Dublin City Council and the County Councils of Dun Laoghaire/Rathdown, Fingal, and South Dublin;
- (c) for major railways, the local authority or local authorities within whose functional area or areas the railway is located;
- (d) for major roads, the relevant local authority or local authorities within whose functional area or areas the road is located; and
- (e) for major airports, the local authority or local authorities within whose functional area the airport is located.

Action Plans

11

(1) The action planning authority or authorities concerned shall, no later than 18 July 2008, following consultation with the Agency, make an action plan for each of the following areas: -

- (a) the agglomeration of Dublin;
- (b) places near a major road which has more than 6 million vehicle passages per year;
- (c) places near a major railway which has more than 60,000 train passages per year; and
- (d) places near a major airport.

(2) Without prejudice to sub-article (1), the action planning authority or authorities concerned shall, no later than 18 July 2013, following consultation with the Agency, make an action plan or revised action plan, as appropriate, for each of the following areas:-

- (a) an agglomeration with more than 100,000 inhabitants;
- (b) places near a major road, and
- (c) places near a major railway.

(3)

(a) Subject to prior consultation with the Agency and to paragraph (b), the action planning authority or authorities concerned, as the case may be, shall determine the measures to be included in an action plan.

(b) Each action plan shall address priorities which:-

- (i) may be identified on the basis of exceedances of any relevant noise limit value or other relevant criteria established by the Agency in accordance with sub-article 4, and
- (ii) shall, in the first instance, address the most important area or areas, as the case may be, established by strategic noise mapping.

(4) Without prejudice to any relevant statutory limit value for noise, the Agency may, following consultation with noise-mapping bodies and action planning authorities, establish other relevant criteria for action plan priorities for road- traffic noise, rail-traffic noise, aircraft noise around airports and noise on industrial activity sites, and shall, no later than 18 July 2013, inform the Minister, the Minister of Transport and the Commission of such criteria.

(5) Action plans shall:

- (a) satisfy the minimum requirements set out in the Fourth Schedule.
- (b) aim to protect quiet areas.

(6) Action planning authorities shall ensure that: -

- (a) the public are consulted on proposals for action plans;
- (b) the public are given early and effective opportunities to participate in the preparation and review of action plans;
- (c) the results of public participation are taken into account in finalising action plans or reviews of action plans;
- (d) the public are informed of the decisions taken in relation to action plans;
- (e) reasonable time-frames are adopted to allow sufficient time for each stage of public participation.

(7)

(a) Action planning authorities shall be responsible for the review and, where necessary, revision of action plans.

(b) An action plan shall be reviewed and, if necessary, revised:

- (i) in the event of a material change in environmental noise in the area concerned,
- (ii) if requested by the Agency, or
- (iii) not later than five years after the date on which it was made or last reviewed.

(8) Action planning authorities shall co-operate, as appropriate, with their counterparts in neighbouring Member States of the European Communities with regard to the drawing up and approval of action plans for border areas.

(9) Action planning authorities shall ensure that, for the purpose of article 5(4), a summary of each action plan or revised action plan is sent to the Agency no later than one month after the date on which the action plan or revised action plan, as the case may be, was made.

FOURTH SCHEDULE MINIMUM REQUIREMENTS FOR ACTION PLANS

1. An action plan must at least include the following elements:

- a description of the agglomeration, the major roads, the major railways or major airports and other noise sources taken into account,
- the authority responsible,
- the legal context,
- any statutory limit values in place,
- 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 that need to be improved,
- a record of the public consultations organised in accordance with article 11(6),
- any noise-reduction measures already in force and any projects in preparation,
- actions which the action planning 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,
- provisions envisaged for evaluating the implementation and the results of the action plan.

2. The actions which the action planning authorities intend to take in the fields within their competence may for example include:

- traffic planning,
- land-use planning,
- technical measures at noise sources,
- selection of quieter sources,
- reduction of sound transmission,
- regulatory or economic measures or incentives.

3. Each action plan should contain estimates in terms of the reduction of the number of people affected (annoyed, sleep disturbed, or other).