

A decorative graphic consisting of several thin, light green lines that originate from the top left and fan out towards the right side of the slide, creating a sense of movement and depth against the solid green background.

A Proposed Overall Approach

APA Workshop on Noise Action Plans

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EPA Responsibilities

- EPA have a Regulatory role to:
 - *“exercise general supervision over the functions and actions of noise-mapping bodies and action planning authorities, and provide guidance or advice to such bodies and authorities, where necessary”*
 - *“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”*
- Submit summaries of NAPs to EC by 18 January 2008

EPA Guidelines

- EPA proposes to publish Guidance on Noise Action Planning to set out
 - **Guidance and advise to Action Planning Authorities**
 - **Requirements for Action Plans**
 - **Guidance of determination of actions to be implemented**
 - **Process including public participation**
 - **Publication**
 - **Annexes**

EPA Guidance and Advice

- Annex V requires:
 - **long-term strategy,**
 - **key aims and objectives of the action plans over the next 20 (for example) years**
- Aims and objectives
 - **Avoid significant adverse health impacts from environmental noise;**
 - **Mitigate and minimise adverse health impacts from environmental noise; and**
 - **Where possible, contribute to the improvement of health and quality of life through the effective management and control of environmental noise**

Requirements for Action Plans

- 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**
 - **Contact details**

Requirements for Action Plans (cont)

- Regulatory background
 - **EC directive 2002/49/EC**
 - **Regulations**
- Existing guidance and noise management framework
 - **Environment Agency Act, 1992**
 - **IPPC**
 - **Protection of the Environment Act 2003**
 - **Environmental Noise Survey Guidance Document, 2003**
 - **NRA Guidelines, 2004**
 - **Quiet Areas in open country**
 - **EPA Environmental Quality Objectives - Noise in Quiet Areas' (2000-MS-14-M1), 2003**
 - **Local undertakings and agreements**
 - **DAA noise insulation packages**
 - **Local Authority guidelines**

Requirements for Action Plans (cont)

- a summary of the results of the noise mapping,
 - **Tables of statistics reported to the EC;**
 - Areas
 - Numbers of dwellings
 - Number of people
 - **>55 and >65 dB contours maps reported to the EC;**
 - **Graphical noise maps available from EPA / NMBs.**

Requirements for Action Plans (cont)

- an evaluation of the estimated number of people exposed to noise, identification of problems and situations that need to be improved,

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

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**
- **Compensation for noise blight**
- **Operational targets**

Protection of the future noise climate

Quiet Areas inside agglomerations

- **strategic noise maps may assist with the identification;**
- **no accepted definition of a quiet area within an agglomeration, and thus a policy approach and a definition needs to be developed;**
- **Several means of defining quiet areas within agglomerations:**
 - Simple purely noise related criteria,
 - Wider definitions may take into account related aspects such as land use, local amenity value, accessibility and historic usage.
- **Possible starting point:**
 - The areas of the noise maps below 55 dB Lday 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, how is protection delivered**
- **What is done with noisy public spaces?**

Protection of the future noise climate

Quiet Areas in open country

- Under the Regulations it is required to delimit quiet areas in the open country.
- 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
- Strategic noise mapping outside agglomeration unlikely to cover such areas
- Extend tranquillity research to develop definition which may be used to identify quiet area in the open country

Protection of the future noise climate

Prevent increasing noise levels

- **Where exposure is above “quiet area” status, and below “harmful” levels noise level increases should be prevented**

Current noise management tools:

- **Environmental Protection Agency Act**
 - 106 – gives Minister powers to regulate
 - 107 – gives Las and EPA powers to regulate
 - 108 – noise problems may be taken to District Court
- **NRA design guidelines for national roads**
- **IPPC Licensing**
 - Suggested daytime and night time limits
- **Building Regulations**
 - Reasonable resistance to airborne and impact sound

- **Many situations without specific guidelines**
- **No clear cohesive national policy**

Protection of the future noise climate

Planning

- **currently not a complete set of detailed advice, guidance or regulation regarding the management of noise during the Planning process**
- **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.
- **extent of change has as much importance as the final absolute level.**

Protection of the future noise climate

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.**

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.**

Compensation for noise blight

- **Possibly investigate the feasibility of provisions similar to the UK Land Compensation and the enacting provisions of the Noise Insulation Regulations to provide for noise insulation packages and financial compensation for loss in property value due to the noise impact of new or altered road or rail transport schemes**

Protection of the future noise climate

- 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.**

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?

Reduction of the existing noise climate where necessary

At what extent of noise exposure is action necessary?

- **National limits**
 - Straightforward, but risk being overly simplistic
 - Need to be suitable for Ireland
 - Should complement planning guidelines
- **Nuisance assessment**
 - Combine noise levels, population location and noise nuisance dose/response to produce nuisance distribution maps
- **Noise scoring**
 - QCity proposal – Hot Spot analysis
 - estimates noise nuisance and sleep disturbance
 - combines noise levels, population location, nuisance dose/response, façade insulation, quiet façade and noise level in the vicinity

Reduction of the existing noise climate where necessary

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

- Directive requires the production of strategic noise maps
- *“provide a representation of the noise levels perceived within that area”*
- Complexities of the process, uncertainties in the datasets, methodologies and population assessment result in the noise maps being:
 - An indication of where environmental noise is located
 - An estimate of the magnitude of noise levels within the assessment area
 - An estimate of the number of people exposed

Reduction of the existing noise climate where necessary

Is the population exposed to these indicated noise levels?

- **And how many people are exposed in these areas?**
- **Are the population actually experiencing these indicated noise levels?**
 - Confirm indicated noise levels are experienced by the population
 - Review and refine noise model
 - Field survey measurements

Reduction of the existing noise climate where necessary

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

- **Scenario testing using noise models / scoring models**
 - Some possible scenarios difficult to model using current methods
- **Order of merit for scoring criteria**
- **Cost benefit analysis**
- **EU research for support**
 - EffNoise
 - QCity
 - SILENCE
 - GOAL project in Graz

Requirements for Action Plans (cont)

- 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.**
- Possibly mixed approach:
 - **Indicated threshold value (or values) for action;**
 - **Assessment matrix to help determine prioritisation of actions**

Requirements for Action Plans (cont)

- 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**
- 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**

Links to Strategic Policies

- Action plans will be a strategic policy documents 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**
- Synergies and conflicts to be explored
 - **Synergies may provide funding sources and political backing**

Summary and Conclusions

- it is suggested that noise action plans could be umbrella strategic policy documents;
 - containing 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
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- many of the key building blocks required to protect the future environmental noise climate need to be developed,
 - they 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.

Summary and Conclusions

The following policies need to be developed:

- **Aims and objectives for noise action plans;**
- **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;**

Summary and Conclusions

The following policies need to be developed (continued):

- **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;
 - Noise nuisance legislation; and
 - Compensation payments.
- **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.

Any Questions ?

Thank you for your attention

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