SLIGO NOISE ACTION PLAN 2024 - 2028

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1 Executive Summary

The Noise Action Plan 2018 – 2023 has been prepared by Sligo County Council for the purpose of managing noise issues and their effects. The Noise Action Plan for Sligo covers areas affected by environmental noise as identified by strategic noise mapping.

The Plan has been prepared in accordance with the requirements of EU Directive 2002/49/EC (also known as the Environmental Noise Directive or END). This EU legislation was transposed into Irish law by the Environmental Noise Regulations 2005, SI No. 140 of 2006.

The aim of the Directive and the Regulations is to provide for the implementation of a European Commission approach to avoid, prevent or reduce on a prioritized basis the harmful effects, including annoyance, due to exposure to environmental noise.

Environmental noise is unwanted or harmful outdoor sound created by human activities including noise emitted by means of transport, road traffic, rail traffic, air traffic and noise in agglomerations over a specific size. Types of noise **not** included in the Regulations are noise that is caused by the exposed person, noise from domestic activities, noise created by neighbours, noise at workplaces or noise inside means of transport.

Noise Mapping Bodies and Action Planning Authorities were assigned responsibility under the Regulations to draw up noise maps and prepare action plans for noise from the following noise sources:

- Sections of major roads above a flow threshold of **3 million** vehicles per annum
- Sections of Major Railway above a flow threshold of **30,000** train passages per year (No such sections in Sligo),
- Major airports with more than **50,000** movements per year – a movement being a takeoff or landing (Not applicable in Sligo),
- Agglomerations with more than **100,000** inhabitants (Not applicable to Sligo)

Transport Infrastructure Ireland (TII), as the noise mapping body for major national roads, has prepared strategic noise maps for the section of road in Sligo that have been confirmed by verified vehicle count data to have more than 3 million vehicles per annum. Transport Infrastructure Ireland (TII) has estimated from noise mapping and geo-directory data, that the approximate number of individuals located within the action planning areas in County Sligo where the noise levels exceed the L_{den}value of 53dB and L value of 45dB are 11,257 and 10,914 respectively.

The purpose of this Action Plan is to endeavor to manage the existing noise environment and protect the future noise environment within the action planning area. Management of the existing noise environment may be achieved by prioritizing areas for which further assessment and possible noise mitigation may be required. Protection of future noise environment may be achieved by acoustical planning, which further incorporates noise into the planning process via measures such as land use planning, development planning, sound insulation measures, traffic planning and control of environmental noise sources.

The present action planning area covers affected areas adjacent to sections of the N4 (Sligo City and Collooney) and N15 (Sligo city) National Primary Road network.

Glossary of Acoustic Terms

Agglomeration	*Major Continuous Urban Area as set out within the Regulations – a dense urbanised area with a population greater than 100,000 persons.*
Attribute 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*
CRTN	*The Calculation of Road Traffic Noise 1988.The road traffic prediction methodology published by the UK Department of Transport*
Data	*Data comprises information required to generate the outputs specified, and the results specified*
dB	*Decibel*
END	*Environmental Noise Directive (2002/49/EC)*
Environmental Noise	*This is unwanted or harmful outdoor sound created by human activities including: noise emitted by means of transport, road traffic, rail traffic, air traffic, and from sites of industrial activity such as integrated pollution prevention and control licensed industries.*
ESRI	*Environmental Systems Research Institute*
GIS	*Geographic Information System*
INM	*Integrated Noise Model*
Important Area	*IAs are locations where Road Traffic Noise is 53 Db L_{den} and 45 dB L_{night}* *Where Railway Noise is 54 L_{den} and 44 L_{night}*
IPPC Licence	Integrated Pollution Prevention and Control Licence (obtained from EPA) (day-evening-night indicator) L_{den} shall mean the noise indicator for overall annoyance. This comprises of adding the average value for the 12-hour daytime period with the average value of the 4 hour evening period plus a 5 decibel weighting or penalty, and the average value for the 8 hour night time period with a 10 decibel weighting or penalty.
Irish National Grid (ING)	*The official spatial referencing system of Ireland*
ISO	*International Standards Organisation*
Major Road	A national or regional road with more than 3 million vehicles per annum
Major Railway	A railway line which has more than 30,000 train passages per year.

Metadata	*Descriptive information summarising data*
Most Important Area	*MIAs are identified by an automated process using the results of strategic noise maps assigned to population statistics in areas with exposures greater than the Important Area guideline noise levels.*
Noise Bands	*Areas lying between contours of noise levels (dB)*
Noise Levels	*Free-field values of L_{day}, $L_{evening}$, L_{night}, and $L_{A10,18h}$ at a height of 4m above local ground level*
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*
OSI	*Ordnance Survey for Ireland*
Priority Important Area	*PIAs would be identified from the list of Most Important Areas using information such as noise sources (road or rail), total population, area (sq. m.), number of dwellings and the number of people affected by noise and to what degree.*
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*

2 Introduction

2.1 Purpose of the Environmental Noise Directive (END)

2.1.1 Introduction

In 2002 the European Union issued Directive 2002/49/EC to establish a method for dealing with environmental noise pollution. Commonly known as the Environmental Noise Directive (or 'END') the Directive's main aim was to put in place a European wide system for identifying sources of environmental noise pollution, informing the public about relevant noise data and then taking the necessary steps to avoid, prevent or reduce noise exposure on a prioritised basis.

'END' was most recently transposed into Irish law by the European Communities (Environmental Noise) Regulations 2018, S.I. No. 549 of 2018 (Regulations). The 2018 Regulations were most recently amended through the European Communities (Environmental Noise) (Amendment) Regulations 2021, S.I. No. 663 of 2021.

The basic principles and requirements of the Environmental Noise Directive can be summarised as follows:

2.1.2 Noise Assessment

The Directive aims to monitor environmental noise problems by requiring competent authorities in Member States to generate strategic noise maps for major roads, railways, airports and agglomerations, using harmonised noise indicators L_{den} (day-evening- night average sound level) and L_{night} (nighttime average sound level). These maps are to be used to as a means of presenting environmental noise data, as a source of information for the public and as an aid in the preparation of Noise Action Plans.

The requirement to prepare Noise Action Plans is supported under the National Planning Framework 2040 Policy Objective 65 which states: "*Promote the pro-active management of noise where it is likely to have significant adverse impacts on health and quality of life and support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans*"

All member states are required to develop strategic noise maps describing the environmental noise situation within their territories.

Strategic noise maps present noise level data in terms of a relevant noise indicator. Their purpose is to allow authorities to identify areas where noise limit values have been exceeded, estimate the number of people exposed to environmental noise and evaluate the contribution of various noise sources to the overall noise situation.

2.1.3 Development of Action Plans

The Directive aims to address local environmental noise issues by requiring competent authorities to draw up Action Plans to reduce environmental noise where necessary and maintain the environmental acoustic quality where it is good. The Directive does not set any limit value, nor does it prescribe the measures to be used in the Action Plan's, which remain at the discretion of the competent authorities.

Action Plans outline the measures which competent authorities intend to take to assess any environmental noise issues identified during the mapping process. This includes the prioritisation of retrofit action to reduce these noise levels when deemed to be too high and the preservation of the noise situation in locations which have been designated as quiet areas.

2.1.4 Disseminating Data to the Public

One of the underlying themes throughout the Directive is the dissemination of noise data to the general public using channels and media that are both suitable and effective. The Directive instructs that the public be made aware of any noise assessment data, be consulted during the formulation of Action Plans and informed of any decisions taken.

The overall goal of these actions is to develop a long-term EU strategy, which includes objectives to reduce the number of people affected by noise and provide a framework for developing existing community policy on noise reduction from major sources.

2.2 Scope of the END

The Directive is aimed at establishing harmonised EU measures to reduce noise emitted by the major sources, in particular road and rail vehicles and infrastructure, aircraft, outdoor and industrial equipment and at providing a basis for developing and complementing the existing set of community measures concerning environmental noise. The Directive applies to environmental noise to which humans are exposed, in built-up areas, in public parks or other quiet areas in an agglomeration, in quiet areas in open country, near schools, hospitals and other noise sensitive buildings and areas. It does not apply to noise that is caused by the exposed person himself\herself, noise from domestic activities, noise created by neighbours, noise at workplaces or noise inside means of transport or due to military activities in military areas. Noise maps are strategic tools and should not be used for the assessment of local noise nuisances.

2.3 Purpose and Scope of the Regulations

Statutory Instrument No. 140 of 2006, also known as The Environmental Noise Regulations, was brought into effect by The Minister for the Environment, Heritage and Local Government, for the purpose of giving effect to European Council Directive 2002/49/EC relating to the assessment and management of environmental noise. The Regulations were brought into force in accordance with the powers conferred on The Minister by sections 6, 53 and 106 of the Environmental Protection Agency Act 1992 (No. 7 of 1992), as amended by Part 2 of the Protection of the Environment Act 2003 (No. 27 of 2003).

The Environmental Noise 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.

The Regulations apply to environmental noise to which people are exposed, in line with the definition given above in section 2.2. As with the Directive itself, the Regulations do not apply to nuisance noise which can be dealt with under the Environmental Protection Agency Act 1992.

2.4 Roles and Responsibilities of Designated Bodies

The Regulations designate the Environmental Protection Agency (EPA) as the national authority responsible for overseeing the implementation of the Regulations. The EPA is required to provide advice and guidance to the relevant noise mapping bodies and action

planning authorities. The EPA is responsible for reporting to the European Commission the information relating to strategic noise mapping and action planning in accordance with Article 10(2) of the Directive.

2.4.1 Noise Mapping Bodies

Under the Environmental Noise Regulations, the following organisations have been designated as noise-mapping bodies:

- For the agglomeration of Cork, Cork City Council and Cork County Council
- For the agglomeration of Dublin, Dublin City Council and the County Councils of Dun Laoghaire/ Rathdown, Fingal, and South Dublin
- For major railways, Iarnród Éireann or Transport Infrastructure Ireland (formerly Railway Procurement Authority), as appropriate, on behalf of the action planning authority or authorities concerned
- For major roads,
    1. where such roads are classified as national roads in accordance with Section 10 of the Roads Act 1993 (No. 14 of 1993), the Transport Infrastructure Ireland (formerly National Roads Authority), on behalf of the action planning authority or authorities concerned, and
    2. other than those provided for in part (i), the relevant road authority or authorities, as appropriate
- For major airports, the relevant airport authority, on behalf of the action planning authority or authorities concerned

Responsibilities

The relevant noise-mapping bodies were required to produce strategic noise maps for:

- An agglomeration with more than 100,000 inhabitants
- A major road
- A major railway
- Any major airport

A major road is defined as any motorway, regional or national road with more than 3 million vehicle passages per year, while a major railway is any railway with more than 30,000 passages per year.

The Regulations also state that the designated noise-mapping bodies are required to make and maintain a strategic Noise Map, or Revised Map as appropriate over the lifetime of the Plan.

2.4.2 Action Planning Authorities

Under the Environmental Noise Regulations, the following organisations have been designated as action planning authorities:

- For the agglomeration of Cork, Cork City Council and Cork County Council,
- For the agglomeration of Dublin, Dublin City Council and the County Councils of Dun Laoghaire/Rathdown, Fingal, and South Dublin,

- For major railways, the local authority or local authorities within whose functional area or areas the railway is located
- For major roads, the relevant local authority or local authorities within whose functional area or areas the road is located
- For major airports, the local authority or local authorities within whose functional area the airport is located.

Accordingly, Sligo County Council is designated as the action planning authority for all sections of major roads within the functional areas of the Council, which experience a volume of traffic greater than 3 million vehicle passages per year.

There are no major railways, airports or agglomerations within the functional area of the Council. The railway in County Sligo is not considered to be major as it does not have more than 30,000 passages per year.

Responsibilities

Action planning authorities are responsible for the making and approval of action plans, in consultation with the Agency and the noise-mapping body for the noise maps involved. Action plans must satisfy the minimum requirements set out in the Fourth Schedule of the Regulations.

Action planning authorities are required to ensure that:

- The public are consulted on proposals for action plans
- The public are given early and effective opportunities to participate in the preparation and review of Action Plans
- The results of public participation are considered in finalising Action Plans or reviews of Action Plans
- The public are informed of the decisions taken in relation to Action Plans
- Reasonable timeframes are adopted to allow sufficient time for each stage of public participation.

2.5 Key Phases

The key phases involved in meeting the requirements of the Regulations are laid out below. The responsibility is shared between the noise-mapping bodies and action planning authorities.

2.5.1 Identification of Areas for Noise Mapping

Strategic noise maps were developed for all roadways meeting the criteria set out in Article 10(1) of the Regulations, specifically any motorway, regional or national road with more than 3 million vehicle passages per year. Road traffic volumes were obtained using Transport Infrastructure Ireland (TII) traffic counting system and the Council's own traffic count data. Traffic count figures were used to identify roadways which were eligible for mapping.

2.5.2 Preparation of Strategic Noise Maps

2.5.2.1 Purpose and Scope

According to the END a strategic noise map is *"A map designed for the global assessment of noise exposure in a given area or for overall predictions for such an area."* Essentially a noise map is a

representation of the noise situation in a given area, presented in terms of a chosen noise indicator.

Noise maps may take several forms such as tabulated data or data in electronic form, but the most common format is a graphical representation of the noise levels in an area. Colour coded contour plots link areas of equal noise exposure.

Noise mapping techniques employ software that estimates the noise level in an area from a particular source, given several governing factors e.g. speed of the traffic flow, number of light and heavy vehicles, building topology, road surface and gradient.

The maps are intended to provide a representation of the noise levels perceived within the assessment area and to identify locations where action may be needed to reduce high noise levels and protect the acoustic environment where favourably low noise levels are present.

2.5.2.2 Extent/Range

The noise maps generated by TII are plotted in graphical form in terms of L_{den} and L_{night}. They are presented in 5dB contour bands beginning at 50-54dB and ranging up to 70-74dB. The maps also provide an indication of noise levels which are greater than 75dB. The noise levels indicated are predictions attributed only to a specific source of noise i.e. road traffic.

2.5.2.3 Noise Mapping Bodies Responsible

Under article 6(d) of the Regulations, TII is designated as the noise-mapping body responsible for the mapping of all major national roads within Ireland, whilst the County Council are responsible for mapping all major non-national roads within their area of control. During the noise mapping carried out in 2017, TII undertook the assessment of noise from non-national roads on behalf of the counties based upon information supplied to TII by the relevant Local Authorities.

2.5.3 **Development of the Noise Action Plans**

2.5.3.1 Purpose and scope

Noise Action Plans are aimed at defining a common approach intended to avoid, prevent and reduce exposure to environmental noise and also to protect quiet areas. They will form the basis of a long-term environmental noise strategy and are not tools for dealing with nuisance noise complaints.

2.5.3.2 Extent/Range

Action Plans are based on the results of the noise mapping process. The noise mitigation measures contained within Action Plans deal with potential issues identified during noise mapping, with a view to reducing the number of people exposed to unacceptably high noise levels and protecting areas of perceived tranquillity.

2.5.3.3 Public Participation and the Role of the Public

Public participation and dissemination of data to the public are integral parts of the END and the Environmental Noise Regulations. The public should be consulted at all stages of policy development and implementation. The role of the public is to review and guide the formulation of strategic noise policy with a view to avoiding, preventing and reducing, where necessary, exposure to environmental noise. Their role is not to highlight individual instances

of noise annoyance, but to contribute to an overall best approach to widespread environmental noise reduction.

2.5.3.4 Implementation of the Plans

Noise Action Plans span a 5-year time scale. They detail planned activities in each year and include a program review before the end of the Action Plan time frame.

2.6 Noise Indicators

To standardise noise measurements and assessment methods a common noise indicator is required. Various statistical indicators exist to define noise levels depending on the manner and duration of the noise in question.

The END specifies two noise indicators to be used when preparing environmental noise maps. These are the L_{den} indicator and the L_{night} which is used to assess sleep disturbance. The Lden is the day, evening and nighttime rating level, with weightings applied to noise pollution for the different periods.

L_{day} is the A-weighted long-term average sound level measured between 07.00 and 19.00

$L_{evening}$ is the A-weighted long term-average sound level measured between 19.00 and 23.00

L_{night} is the A-weighted long-term average sound level measured between 23.00 and 07.00

The average day, evening and night values are determined over all the respective periods of a year, making the L_{den} a yearly average. A 5dB weighting is added to the evening noise value and a 10 dB weighting added to the nighttime level. This is to account for the fact that the same noise level may be more annoying at different times of the day. Consider road works in a residential area at four in the afternoon or four in the morning. The same noise level will be far more annoying during the nighttime period.

A-weighting of noise levels accounts for the fact that the human ear is more responsive to certain types of sound than others. The A-weighting process applies weightings to different types of noise to better approximate the perception of sounds. A-weighted sound pressure levels are measured in decibels, dB(A).

3 Existing Noise Management: Legislation and Guidance

3.1 National Legislation, Policy and Guidance

The legal and policy framework relating to the management and control of environmental noise is enacted through International, European, national and local legislation, regulation and guidance.

Project Ireland 2040 – National Planning Framework

In 2018, the Government issued the National Planning framework2040, which includes Policy Objective 65 to:

"Promote the pro-active management of noise where it is likely to have significant adverse effects on health and quality of life and support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans"

EPA Guidance

The EPA Draft Guidance Note for Noise Action Planning for the European Communities (Environmental Noise) Regulations 2018 DRAFT Version 2 January 2024 provides practical information, advice and guidance t6o designated Action Planning Authorities on the development of Noise Action Plans under the Environmental Noise Regulations.

TII Guidance

The Transport Infrastructure Ireland published document *"Guidelines for the Treatment of Noise and Vibration in National Road Schemes",* while not mandatory, are recommended to achieve appropriate consistency with respect to the treatment of noise and vibration during the Constraints, Route Corridor Selection, Environmental Impact Assessment and construction phases of road scheme planning and development undertaken in accordance with the Authority's National Roads Project Management Guidelines (NRPMG) There are currently no Irish standards or limits governing the assessment of noise and/or vibration associated with either new or existing roads.

National Climate Action Plan

CAP includes targets to reduce the total vehicle kilometres of travel by 20 per cent by 2030 which will also influence reductions in noise from road transport.

3.1.1 Environmental Protection Agency Act 1992

The EPA Act identifies noise as a form of environmental pollution and contains provisions for dealing with noise *"which is a nuisance or would endanger human health or damage property or harm the environment."* The sections of the Act relevant to noise pollution are:

Section 106 – Regulations for Control of Noise

This section gives the Minister the power to make regulations for the purpose of preventing or limiting noise. This may include imposing noise limits, either exceedance values or emission values, controlling sources of noise and the imposition of charges for noise pollution.

Section 107 – Power of Local Authority or Agency to Prevent or Limit Noise

This section gives powers to Local Authorities or the Environmental Protection Agency to control and limit noise from any premises, process or work.

Section 108 – Noise as a Nuisance

This section gives provision for Local Authorities, the EPA or any individual to complain to the District Court regarding noise nuisance causing unreasonable annoyance. The Court may order the offending person or body to take specific measures to limit or prevent noise pollution.

The EPA Act provides a method for dealing with nuisance noise in the community. It does not however, address noise pollution in the long term. The END, enacted through the Environmental Noise Regulations, is the beginning of a framework to develop long term strategic policies to combat noise pollution and protect the public from potentially harmful effects of environmental noise exposure.

3.1.2 The Roads Act 1993 (as amended)

There are currently no Irish statutory or mandatory limits or standards for governing road traffic noise, or its assessment on either new or existing roads.

Also of relevance in terms of the Roads Acts, a 2015 amendment established Transport Infrastructure Ireland through a merger of the National Roads Authority and the Railway Procurement Agency.

3.1.3 Transport Infrastructure Ireland Guidelines

In light of the lack of standardised methods for the assessment of road traffic noise TII published the '*Guidelines for the Treatment of Noise and Vibration in National Road Schemes*.' These guidelines propose design goals for noise related to both the construction and traffic flow on new road schemes.

For new roads in Ireland, it is standard practice to adopt the traffic noise design goal contained within TII guidance document. This document specifies that the Authority (i.e. TII) considers it appropriate to set the design goal for Ireland as follows:

- day-evening-night 60dB L_{den} (free field residential façade criterion)

Noise mitigation measures are deemed necessary whenever all the following three conditions are satisfied:

(a) the combined expected maximum traffic noise level, i.e. the relevant noise level, from the proposed road scheme together with other traffic in the vicinity is greater than the design goal, and;

(b) the relevant noise level is at least 1dB more than the expected traffic noise level without the proposed road scheme in place; and

(c) the contribution to the increase in the relevant noise level from the proposed road scheme is at least 1dB.

These conditions will ensure that mitigation measures arising out of this process are based upon the degree of impact of the scheme under consideration. This Design Goal is applicable to new road schemes only.

Essentially what this means, is that for any new road scheme, the Environmental Impact Assessment Report must take this target into account, regarding any existing sensitive residential property likely to be affected by the road scheme. The guidelines present an

approach to mitigating the adverse effects of road construction in so far as possible using measures such as alignment changes, barrier construction e.g. earth mounds, and the use of low noise road surfaces. The responsibility for considering noise mitigation policy relating to any proposed new sensitive properties in the vicinity of the road scheme lies with the relevant Planning Authority.

TII also published additional guidelines in 2014, titled *'TII Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes'.* The purpose of this guidance was to evaluate the effectiveness of the earlier guidelines, including the effectiveness of noise mitigation measures, in achieving the NRA's noise design goal as set out in the guidelines. A further aim of the review was to identify good practice and potential deficiencies in current practice, and to provide advice on the practice to be adopted in the planning of national road development proposals.

3.1.4 IPPC Licensing

Certain activities that are required to be licensed under the IPPC (Integrated Pollution Prevention Control Licensing) regulations may be subject to noise conditions. The relevant guidance is set out in the EPA publication *Guidance Note for Noise Reduction to Scheduled Activities (NG4).* This document contains suggested general noise limits of 55dB(A) L Ar,T for daytime, 50 dB(A) L Ar,T for evening and 40 dB(A) L Ar,T for night-time; with lower noise limit criteria suggested for areas of low background noise, and quiet areas.

3.1.5 Building Regulations 2014

Part E of the Building Regulations (Part E Amendment) Regulations 2014 relates to the mitigation of sound transfer between dwellings and rooms within a building. The regulations simply state that:

> *Each wall and floor separating a dwelling from—*
> *(a) another dwelling or dwellings,*
> *(b) other parts of the same building,*
> *(c) adjoining buildings,*
> *shall be designed and constructed in such a way so as to provide reasonable resistance to sound.*

No consideration is given to the nature or location of the building or potential noise sources. More comprehensive regulations should include façade noise insulation guidelines and appropriate standards to be met before habitation.

3.1.6 Regional and Local Legislation and Guidance

3.1.6.1 Sligo County Development Plan, 2017-2023

The Sligo County Development Plan 2017-2023 sets out the following noise control objective in Section 10.3:

> *It is the policy of Sligo County Council to:*
> ***P-NC-1*** *When assessing proposals for activities that are likely to generate significant levels of noise, seek to protect the amenity of dwellings, community facilities and other noise-sensitive developments by ensuring that all new (and where possible existing) developments incorporate appropriate measures to minimise noise nuisance.*
> ***P-NC-2*** *Developments that operate at night – e.g. restaurants, takeaways, pubs, hotels, night clubs – should not be located close to dwellings, where possible.*

3.1.6.2 DRAFT Sligo County Development Plan, 2024-2030

The Sligo County Development Plan is currently being drafted.

It will support the implementation of the Noise Directive 2002/49/EC and associated Environmental Noise Regulations 2006.

It is proposed to include the following provision:

"Applications for noise-sensitive development located in the vicinity of existing or proposed national roads proposals should identify appropriate noise mitigation measures. The costs of implementing mitigation measures shall be borne by the developer. The Local Authority will not be responsible for the provision of additional noise mitigation."

3.1.7 National Planning Framework, 2040

In 2018, the Government issued the National Planning Framework 2040[1], which includes - Policy Objective 65 to:

> *Promote the pro-active management of noise where it is likely to have significant adverse impacts on health and quality of life and support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans.*

The top level national spatial plans in Ireland will essentially guide where population increase, and economic growth is to be focused.

3.2 Noise Assessment for Action Planning

At present there is no existing legislation that limits noise levels to a particular value. Several difficulties arise when attempting to choose a reasonable value for noise level limits, mainly due to the subjective nature of noise exposure and annoyance. The effects of noise exposure are highly dependent on the perception of the exposed person and the effectiveness of noise reduction can often be dependent as much on relative changes as on absolute levels. Attempting to apply the same limit value to a city centre park and rural countryside may be inappropriate, although both can be perceived as tranquil areas relative to the surroundings.

To address the lack of legislative measures and unify the approach taken by Action Planning Authorities the EPA have issued guidelines for the assessment of noise exposure and prioritising areas for noise mitigation measures. The proposed onset of assessment levels relating to road traffic noise are given below.

Onset levels for noise mitigation measures:

- 70dB L_{den}
- 57dB L_{night}

Onset levels for measures to preserve the existing noise situation:

- 55dB L_{den}
- 45dB L_{night}

[1] National Planning Framework 2040: http://www.gov.ie/en/project-ireland-2040/

These levels reflect an annual average 24-hour period.

These values were decided upon after a review of guidance values issued in other countries e.g. the UK, and TII guidelines for treatment of noise.

4 Description of the Action Planning Area

4.1 Coverage Area

Sligo County Council is responsible for Noise Action Planning relating only to the major roads passing through the functional area of the Council. There are no agglomerations subject to noise mapping or action planning within the jurisdiction of the Council.

This Action Plan is concerned with noise in the vicinity of major roads, the levels of which are indicated by strategic noise maps.

These maps are included in Appendix A “Strategic Noise Maps’.

5 Responsible Authority for Action Planning

Sligo County Council is responsible for the production and implementation of the Noise Action Plan for County Sligo.

Name and Contact Details:

Environment Section,

Sligo County Council

County Buildings,

Riverside,

Sligo (F91 Y763)

For enquiries, please email noiseactionplan@sligococo.ie

Mr. Val Baynes, Senior Executive Engineer is available at 071-91 11379.

6 Overview of the preparation of the noise map

6.1 Overview

It was recommended that each Action Planning Area undertake a review of its draft noise action plan against the guideline's checklist prior to public consultation, and again prior to publication, to ensure that all relevant aspects are included within the Noise Action Plan.

This recommendation has been / will be actioned with summary table included in **Appendix D**.

The APA has a responsibility to undertake a detailed evaluation of Priority Important Areas in consultation with the Noise Mapping Body (Transport Infrastructure Ireland). This includes identification of noise mitigation measures and implementation of those measures within their areas of competence and responsibility, subject to resources and budgets.

For the NAP process, the Regulations require each action plan or revision of an action plan to address priorities which:

(i) May be identified based on exceedances of any relevant noise limit value or other relevant criteria established by the EPA in accordance with subparagraph (3), and

(ii) shall, in the first instance, address the most important area or areas established by strategic noise mapping.

Stage 1

Noise Action Plans should therefore include the identification of existing noise emissions, the identification of priority important areas based on an assessment of harmful effects and details of noise management measures for consideration and evaluation at implementation stage. The EPA Guidance sets out a process of how the results of the strategic noise mapping can be used to identify areas to be subject to noise management activities during the implementation of the NAP. It also provides further guidance on these concepts and sets out a recommended approach following a three-step approach to identifying priorities.

1. **Important Areas (IAs)** – these are areas exposed to environmental noise which exceed "any relevant noise limit" as established by the EPA in their guidance.
2. **Most Important Areas (MIAs) –** these locations are a sub-set of Important Areas where the health effects are highest, typically through a product of noise exposure levels and the number of people highly annoyed; and
3. **Priority Important Areas (PIAs) –** between 5 and 10 Most Important Areas or group of similarly affected Most Important Areas, identified through a prioritization process, as those which will be evaluated and addressed during the implementation of the Noise Action Plan.

This process has been complied with by the Consultant as managed by TII on behalf of Sligo Action Planning Authority and the data has been mapped.

6.2 Presentation of Results

As a standardized approach to the description of long tern environment noise, the Directive specifies the use of two noise level indicators when preparing environment noise maps and action plans: L_{den} and L_{night}.

- L_{den} is the noise rating indicator, rather than a sound level, and is based upon the day, evening and nighttime noise levels with weightings applied for different periods where L_{den} is a logarithmic composite of the L_{day}, $L_{evening}$ and L_{night} levels but with a 5dB(A) weighting added to the $L_{evening}$ value and a 10dB (A) weighting added to the L_{night} value.
- L_{night} is typically used to assess sleep disturbance where L_{night} is the A-weighted average sound level over the 8-hour period of 2300 – 0700h.

The results of the strategic noise mapping provide information on the assessed noise levels at all noise sensitive properties within the assessment area, along with an estimate of the number of inhabitants. These resultant datasets may then be used to identify Important Areas where long term exposure to noise from infrastructure is likely to produce negative health effects on the exposed population. This would be all areas exposed above the outdoor noise levels set out within WHO guidance.

Number of people in Sligo in dwellings exposed to Level above guideline level.		
	Road Traffic – 53 dB L(den)	Road Traffic – 45 dB L(night)
Important Areas – no. of people in dwellings	11,257	10,914
Important areas – no. of school buildings/ hospital buildings	12 (0)	17 (1)

The process of identifying the Most Important Areas is set out in the EPA guidance and is an automated process within GIS software which uses the results of the strategic noise maps assigned to population statistics in areas with exposure greater than the Important Area guideline noise levels. An indicative list of Priority Important Areas (PIAs) was provided to Sligo County Council based on the statistical results. The noise levels reflected an annual average 24-hour period. This completes Stage 1 of the assessment.

6.3 Noise contour maps for action planning area

The delineated digital polygons associated with the respective HA (High Annoyance) Threshold for the Most Important Areas, and potential Priority Areas in the previous sections have been prepared as digital files.

The file formats are:

- Google Earth compatible Keyhole Markup Language (KML) files; and

- Shapefile (SHP) geospatial vector data format.

6.4 Limitations of the Noise Mapping Process

6.4.1. Limitations of the computer modelling method

The data used to generate the noise maps was obtained from computer modelling rather than from actual noise measurement. This approach is in accordance with the Noise Regulations. There are technical and practical reasons for using computer modelling in preference to actual noise measurement to produce noise maps. Noise levels at individual monitoring locations will generally result from a combination of different sources and physical assessment would not allow for the specific contribution from road noise to be determined. Furthermore, to produce a map base on noise measurements themselves would require many measurements to be made at each location over extended monitoring periods – this would be prohibitively expensive.

The use of computer modelling to produce noise maps is not a limitation of the noise mapping process because it is the method prescribed under the Regulations. However, this noise mapping method does make it difficult to quantify the reduction in noise levels achieved by specific mitigation measures implemented at a local level. Without ”before” and “after” noise monitoring results, improvements cannot be quantified. This is due to the nature of the current exercise. Noise modelling can potentially be used to provide predicted values in whatever format and for whatever period is seemed necessary.

Where specific locations are identified for which noise mitigation measures may be required then a limited amount of actual noise monitoring may be conducted. If mitigation measures are subsequently introduced, then further monitoring may be conducted to quantify the effectiveness of the measures.

Data obtained from computer modelling is repeated every 5 years which does give an indication of changing noise profiles over time.

6.4.2 Vehicle Type

An increasing number of new vehicles on the country’s roads are EVs (Electric Vehicles). Such vehicles are much quieter than petrol- and diesel-powered vehicles. As the proportion of EVs in the country’s overall vehicle stock in the country increases then this will lend to lower noise levels even if traffic volumes themselves don’t change.

7 Identification of Important Areas, Most Important Areas and Priority Important Areas

7.1 Identification of IAs, MIAs and PIAs

The Important Areas (IAs), Most Important Areas (MIAs) and Priority Important Areas (PIAs) identified in Sligo are done so with respect to noise from roads.

The World Health Organisation's definition of health is "a state of complete mental, physical and social well-being". In addition, noise annoyance in this field means a feeling of displeasure, nuisance, disturbance, or irritation caused by a specific sound, and in the context of the WHO guidelines and Environmental Noise Directive (END) it refers to long-term (chronic) noise annoyance, rather than just a temporary irritation. The WHO-developed dose-response relationships for the assessment of health effects due to chronic exposure to environmental noise from roads, railways and aircraft. These dose-response relationships have subsequently been adopted by the EU as Annex III of the END, which sets out methodologies to be used for the assessment of three harmful effects:

- Ischaemic Heart Disease (IHD) due to road traffic noise.
- High Annoyance (HA) due to road, railway and aircraft noise; and
- High Sleep Disturbance (HSD) due to road, railway and aircraft noise.

In the context of the Environmental Noise Directive, the EU Zero Pollution Action Planning Policy Object 65 aims to reduce the harmful effects of environmental noise on human health, and to manage noise where it is likely to have significant adverse impacts on health, it is considered appropriate that noise action plans consider locations above the WHO 2018 guideline levels as Important Areas (IAs), namely:

Road traffic noise:

53 dB L_{den}

45 dB L_{night}

The END requires that "*the measures within the plans are at the discretion of the competent authorities but should notably address priorities that may be identified by the exceeding of any relevant limit value or by other criteria chosen by the Member States and apply in particular to the Most Important Areas as established by strategic noise mapping.*"

The results of the strategic noise mapping include noise levels calculated around the facades of noise sensitive buildings, and an estimate of the number of dwellings and people in dwellings within each residential building, derived from Geo-Directory and Census population statistics. The assignment of population to the calculated noise levels is set out within Annex II of the END (CNOSSOS-EU) and provides building level statistics across the assessment area. Following the method in Annex II of the END, the harmful effects due to noise may also be statistically assessed at the centre point of each building location.

For example, the number of people Highly Annoyed (HA), the number of people Highly Sleep Disturbed (HSD), and the number of cases of Ischaemic Heart Disease (IHD) due to road traffic noise: it is important to note that this is a statistical approach across the whole population covered by the noise maps and should not be considered to be an accurate assessment of the possible health effects at any specific building.

The point dataset of the number of people highly annoyed is then interpolated to generate a raster heatmap, using a quadratic weighted circular neighbourhood around each point. The heatmap process only includes important areas above the criteria set out and is generated on a 100m radius, which generates 100 square metre raster cells.

The following tables summarises the datasets for IAs in Sligo

Table 1: Important Areas – Number of People in Dwellings

Number of People in Dwellings Exposed to Level Above Guideline Level				
A.P.A.	Road Traffic	Road Traffic	Railway	Railway
	53 dB Lden	45 dB Lnight	53 dB Lden	45 dB Lnight
Sligo Co. Co.	11,257	10,914	N/A	N/A

Table 2: Important Areas – Number of School Buildings (& Hospital Buildings)

Number of People in Dwellings Exposed to Level Above Guideline Level				
A.P.A.	Road Traffic	Road Traffic	Railway	Railway
	53 dB Lden	45 dB Lnight	53 dB Lden	45 dB Lnight
Sligo Co. Co.	12(0)	17(1)	N/A	N/A

The following tables summarises the datasets for MIAs in Sligo

Table 3: Most Important Areas (MIAs) Summary

Number of 'Most Important Areas'					Number of People in 'Most Important Area'			
A.P.A.	**Highly Annoyed Threshold**	**All Sources**	**Road**	**Rail**	**Total Population**	**Highly Annoyed**	**Highly Sleep Disturbed**	**Ischaemic Heart Disease**
S.C.C.	7.5	14	14	0	2,393	361	115	0
S.C.C.	10	9	9	0	1,038	164	52	0
S.C.C.	15	2	2	0	68	11	4	0

Identifying Priority Important Areas (PIAs)

When considering the selection of PIAs to address under the action plan, the NAP Guidelines recommend that the Action Planning Area (Sligo County Council) consider the following aspects for each of the MIAs:

- Number of people exposed to noise and the health effects
- Level of noise exposure
- Potential for grouping MIAs into a single larger PIA
- The main source of transport noise
- Competent body to carry out any proposed mitigation measures
- History of complaints
- Planned road maintenance and resurfacing programme
- Planned speed or traffic calming measures
- Planned nearby developments
- Existing noise reduction measures
- Proposed noise reduction measures
- Options available for noise reduction measures, if available

Where multiple Most Important Areas have been identified, it is necessary to identify which of these should be considered a priority (Priority Important Area), where there would be a commitment to undertake an assessment of noise mitigation measures within the life cycle of the NAP. It is necessary to identify areas with high levels of health impact, due to both noise exposure levels and population density. This is designed to support some of the EU Zero Pollution Action Plan and provide noise reduction, and associated reductions in health effects, for groups of the population.

To inform the APA (Action Planning Authority) decisions on the selection of PIAs, consistent with the requirements of the EPA NAP Guidance, associated statistical information has been developed for each MIA. The list of PIAs is summarised below and is based upon those MIAs with the highest total population within the MIAs that have been generated using the EPA Guidance density criteria ('Highly Annoyed' Threshold) 15 or more people per 100 square metres.

Where required, this is extended down to the 10 and/or 7.5 HA (Highly Annoyed) Threshold density criterion. In Sligo, all related noise is sourced from the road network.

7.2 Identification of Quiet Areas

Under the regulations Action Planning Authorities may delimit areas within agglomerations. As there are no qualifying agglomerations (more than 100,000 inhabitants) within County Sligo there is no statutory requirement to identify quiet areas. A quiet area in open country is defined as an area delimited by the Action Planning Authority following consultation with the Agency and approval by the Minister, that is undisturbed by noise from traffic, industry, or recreational activities.

At present, no quiet areas have been identified in the action plan area however quiet areas may be considered and reviewed as part of the implementation of the noise action plan. Any possible designations which may be recommended would go to public consultation prior to submission to the Minister for adoption. This work would be carried out as part of the programme of works for the Action Plan.

8 Mitigation and protection measures

8.1 Investigation of Priority Important Areas

Following the identification of Priority Important Areas, the second stage of the overall process is undertaken during implementation of the Noise Action Plan. There are several approaches that can be undertaken to reduce noise from major roads for existing dwellings:

- Relocating major roads from high density residential settlements through the provision of new road schemes. This is the most effective method of minimising the number of dwellings likely to be affected by the road noise. In this regards, strategic road projects have the potential to segregate and remove large volumes of traffic (and environmental noise impacts) from built up residential area. In doing so, such projects also help to free up road space active travel and public travel models in these areas. Thus, this also offers the potential to further reduce traffic related environmental noise.
- The provision and / or enhancement of new walking and cycling infrastructure, public transport services, and park-and-ride facilities can encourage a greater uptake of active and sustainable transport modes. This in turn decreases car dependency and can reduce traffic volumes and associated environmental noise on major roads leading to urban areas.
- Traffic calming measures can be employed where a major road passes through a built-up area.
- Reduction in speed limits where appropriate and in accordance with legislation and DOT guidelines.
- Where areas are identified by further assessment as requiring possible mitigation, it may be possible to install noise barriers on major roads.
- Changes to the road surface to use porous asphalt may be appropriate in some instances. However, the road surface must be cleaned regularly to keep the pores free of sediment otherwise the sound absorbing properties of the surface are reduced. Porous surfaces are more effective at higher vehicle speeds and are not as effective within 50 kph speed restriction zones.

For each of the Priority Important Areas, an assessment of noise mitigation measures is undertaken during implementation of the Noise Action Plan. The guidelines recommend that this includes:

Noise monitoring,

Noise modelling calculations, and

Cost Benefit Analysis.

8.2 Investigation of candidate Quiet Areas

As County Sligo has no qualifying agglomerations (population greater than 100,000 inhabitants) there is no statutory requirement to identify quiet areas. A quiet area in open country is defined as an area delimited by the Action Planning Authority following consultancy with the agency and approval by the Minister. It must also be undisturbed by noise from traffic, industry or recreational activities. There are currently no quiet areas identified in the County Development Plan.

8.3 Management of Noise Impact on future developments within the Action Planning Area

Several measures can be implemented to prevent noise from major roads on impacting on future noise sensitive developments such as residential properties including:

- Locating zonings of future large scale urban residential developments away from the major strategic roads covered by the END directive.
- Locating less noise sensitive development zonings (e.g. industrial and commercial) in the vicinity of major roads.
- Acoustical planning measures in development layouts including locating access roads, green areas and services to reduce traffic volumes and associated environmental noise.
- Implementing the building line setbacks from National and Regional roads.
- Review of Speed Limits in accordance with the legislation and DOT guidelines.
- Using a higher standard of insulation for new dwellings adjacent to major roads and using higher standards of insulation for the exposed facades of new dwellings.

8.4 Review Possible Mitigation measures for PIAs

Potential noise mitigation measures may be investigated, and a cost benefit analysis undertaken, for each PIA with the aim of developing a selection matrix which leads towards a recommendation for action. There are a range of actions that may be feasible. Some may need to be implemented on or directly along the sources, others may be in the region between the roads and the dwellings, and others vmay be at the noise sensitive locations.

The following types of measures may be relevant for exposure to road traffic noise:

Re-surface roads with 10mm stone mastic asphalt (SMA);

Re-surface roads with low noise road surfaces or thin surface treatments;

Vehicle speed management or speed limit reductions.

Traffic management – routes and HGVs.

New road construction (bypass); and

Roadside noise barriers and screening measures.

Review of other documents as set out in the EPA Noise Action Plan guidelines may highlight some other possible mitigation measures which may be considered.

The actions which the Action Planning Authority 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 noise transmission,
Regulatory or economic measures or incentives.

The following were shown to offer the most cost-effective noise mitigation measures in the context of the ZPAP target of a 30% reduction in the number of people chronically exposed to environmental noise by 2030:

- Road traffic noise.
- Reducing the road traffic noise through road resurfacing and low road noise surfaces.
- Speed restrictions or speed limit reductions.
- Car-free zones.
- Dwelling façade insulation – either new build or retrofit; and
- Planning new developments with quiet facades.

For the Priority Important Areas being assessed, all possible mitigation measures should be considered, and a shortlist of feasible and practical measures drawn up for detailed scenario analysis to quantify the potential for reduction in the population noise exposure as part of the cost-benefit analysis.

It is a statutory requirement that Action Planning Authorities (APAs) liaise and consult with the relevant noise mapping bodies, for example TII, when selecting feasible noise mitigation measures for detailed assessment.

8.5 Assessment of noise reduction effects of potential measures.

Following on the review of possible noise mitigation measures, a shortlist of practical noise mitigation measures which could be implemented for the Priority Important Area are drawn up. The next step is to undertake an assessment of the possible noise mitigation which the measures could provide – both on their own and in combination with others.

In order to undertake the assessment, the strategic noise models for the area around the pia will be required along with noise calculation software. For the Round 4 strategic noise mapping of roads and railways the models and calculations were undertaken using Predictor-LimA, predominantly LimA inside the three agglomerations (Dublin, Cork and Limerick), and Predictor outside the agglomerations.

After the strategic noise maps have been reviewed by the Action Planning Authorities and amended as necessary, they may be considered as the existing situation for the purpose of the Cost-Benefit Analysis (CBA). These may be compared to the levels measured during the ambient noise survey, and any systematic under or over calculations adjusted to validate the models. This approach helps to establish a validated baseline model for the assessment.

It is recommended that the appraisal of monetised benefits to health is undertaken using the UK WebTAG workbooks. These require calculated noise levels for four scenarios:

1. Opening Year – without scheme (do-minimum);
2. Opening Year – with scheme or mitigation measures.
3. Forecast Year (typically 15 years from opening) - without scheme (do-minimum);
4. Forecast Year (typically 15 years from opening) - with scheme or mitigation measures.

The strategic noise models would need to be amended to consider the proposed noise mitigation measures, but also the forecast change in road traffic flows for both the opening year and forecast year. For each noise mitigation scenarios, the four sets of noise calculations above are required for the same area, it is recommended that the assessment area includes all noise sensitive premises within the Priority Important Area, and all other noise sensitive premises within 600m of the proposed noise mitigation measures.

8.6 Financial Provisions

8.8.1 Budgetary Provisions

Financial provisions have not been made available at national level to fund any noise mitigation measures from implementation of previous noise action plans. Equally, staff resources have not been resourced either.

Mitigation measures in previous plans were often 'by products' of already planned roadworks schemes. In some cases, mitigation measures would have been identified and incorporated in to planned road designs.

8.8.2 Cost Benefit Analysis

Evaluation of the impact of noise nuisance is complicated because noise nuisance in itself is subjective. It is mainly related to the type of noise, the source of the noise and whether it is welcome or not, and background noise levels in the environment. Response to noise from the different transport sources can vary considerably. The impact of mitigating measures to address noise nuisance is further complicated because noise is measured on a logarithmic scale and human perception of loudness does not directly coincide with increased sound pressure levels. For example, a 3dB increase in noise, which represents a doubling in sound pressure level, is the smallest statistically significant increase in loudness detectable by the huma ear. To reduce the subjective "loudness" of a noise source by 50% would require a 10dB drop in noise level and may be very difficult to achieve without major investment in noise mitigation. Assigning a monetary cost to the noise nuisance can enable cost benefit analysis to be used as a decision support tool in determining what (if any) noise mitigation measure is to be implemented.

The position of the EC working group on health and socio-economic valuation of noise recommends the following in relation to road noise:

- *For road transport, the (interim) use of the median value change in noise perceived by households of E25 per* dB *(*L_{den}*), per household per year. The validity range of this interim value is between 50/55* L_{den} *and 70/75* L_{den} *and it should be adjusted as new research on the value of noise becomes available.*
- *The estimate of the change should apply at all initial noise levels, and regardless of the size of any change brought about.*

9 Public Participation

9.1 Public Consultation

The DRAFT Noise Action Plan has been developed by Sligo County Council regarding the Regulations and the EPA document *"Guidance Note for Strategic Noise Action Planning for the Environmental Noise Regulations 2006"*, Version 3, March 2018.

Submissions and comments are invited for the action plan by Sligo County Council.

In addition, a number of statutory bodies and stakeholder organisations have been approached directly and asked to provide review and feedback on the proposals set out within the Draft Noise Action Plan.

These are:

Department of Transport.

Department of the Environment, Climate and Communications

Transport Infrastructure Ireland

Environmental Protection Agency

Iarnród Eireann

Roscommon County Council

Leitrim County Council

Mayo County Council

Within the public consultation period, Sligo County Council will make copies of this DRAFT Noise Action Plan available to access by the public at the following locations within County Sligo, and by placing an electronic version on the Consultation Hub of the Authority's website (www.sligococo.ie).

A copy of the Draft Noise Action Plan will be made available for inspection at the offices outlined below from 9:00am to 5:00pm from Friday 23rd August to Friday 4th October 2024.

County Hall, Riverside, Sligo.

City Hall, Sligo.

Tubbercurry One-Stop-Shop

Submissions are invited in respect of the Draft Noise Action Plan for the County and City of Sligo. These can be made ***in writing*** (marked 'Submission – Draft Noise Action Plan 2024-2028') to Environment Section, Sligo County Council, County Hall, Riverside, Sligo, F91 Y763

Submissions may also be emailed to noiseactionplan@sligococo.ie.

Submissions are to be received prior to the deadline date of **4:00pm on Friday 18th October 2024.**

10 Implementation Plan

10.1 General

This Noise Action Plan sets out below a proposed approach to implementation of any requirement for the mitigation of existing levels of environmental noise due to major roads within the County.

10.2 Roles and Responsibilities

Sligo County Council is the designated Action Planning Authority as set out within the Environmental Noise Regulations 2006. The Council is responsible for developing the action plan and ensuring that the implementation timetable set out below is progressed and reviewed. The volumes of rail traffic in County Sligo are below the threshold (30,000 passaged per year) for noise mapping and so the Regulations do not apply to these areas at present.

TII is the key external stakeholder to the Council during the implementation of the action plan, as they developed the strategic noise mapping, and they are the body responsible for the national roads network.

10.3 Objectives

It is the Council's goal to adopt a strategic approach to the management of environmental noise with a view to preventing and reducing environmental noise where necessary and particularly where exposure levels can induce harmful effects on human health. The Council will aim to promote a high level of protection and environmental health.

This goal is to be considered within the context of sustainable development and relates to the strategic objectives of the County Development Plan.

The objective of the Councils is to promote an efficient, integrated, accessible and sustainable transport system for the county.

It is the objective of Sligo County Council to bring National Roads up to appropriate standards and to continue improvements on non-national roads to develop a safe and comprehensive road system for the county.

10.4 Programme of Works

The Noise Action Plan is to be implemented through a staged process over 5 years, such that the works undertaken within the Action Plan will feed into the next round of strategic noise mapping. The implementation of the action plan will be reviewed and reported within the next round of noise action plan due to be completed in 2028.

Year 1 – 2024

- Public consultation for Noise Action Plan
- Review strategic noise maps and associated indicative list of Priority Important Areas.
- Submit Annual EPA Report.

Year 2 - 2025

- Identify mitigation measure options for each PIA.
- Assess possible noise mitigation measures for the PIAs
- Noise mitigation review
- Assess all identified sites
    - In context of proposed development & maintenance
    - Feasibility study for possible mitigation measures
    - Cost benefit analysis for feasible measures
    - Draw up list of cost-effective interventions
- Review County Planning development and planning guidance regarding noise control
- Publish County planning guidance on noise assessment and control
- Submit Annual EPA Report.

Year 3 to 5 – 2026 to 2028

- Commence implementation of the relevant actions
- Collate, capture and consolidate data required for strategic noise mapping.
- Assess implementation and use of guidance on planning and noise

Year 4 – 2027

- Produce new strategic noise maps for 2028 assessment year.

Year 5 - 2028

- Review impact of Action Plan and amend where appropriate
- Public consultation and finalisation of 2029 to 202024 Action Plan

Ongoing requirements

- Annual review of progress against milestones

10.5 Evaluation, Review and Corrective Action Programmes

The Council will review the effectiveness of noise action planning activities on an ongoing basis. This will be done by performing an annual review of the progress made in relation to planned activities. The effectiveness of these measures at combating local environmental noise exposure will also be considered. If necessary, adjustments may be made to the schedule and nature of planned activities in order to better meet the goals of the action plan.

In 2026 and 2028 the Council will carry out a review of the program of any works implemented under this action plan. Progress and results will be evaluated using information gathered through local assessment of environmental noise exposure. This may include “before and after” evaluations of any noise mitigation measures. A review of new noise maps will also be carried out, giving an indication of the change in environmental noise levels and the numbers of people exposed.

11 Summary and Conclusions

This Noise Action Plan has been prepared as required by the Environmental Noise Regulations 2006, Statutory Instrument No. 140 of 2006. These Regulations give effect to EU Directive 2002/49/EC relating to the assessment and management of environmental noise.

It aims to provide an overview of the requirements of the Regulations, a review of the results of the strategic noise mapping within Sligo City and County and set out an approach to the strategic management and control of environmental noise over the next four to five years.

The objectives of Sligo County Councils Noise Action Plan is to avoid, prevent and reduce, where necessary, on a prioritised basis the harmful effects, including annoyance, due to long term exposure to environmental noise. This will be achieved by taking a strategic approach to managing environmental noise and following a balanced approach which promotes the objectives in the context of sustainable development. This approach promotes action on environmental noise through three avenues, these being noise reduction at source, land use planning adapted to noise goals and procedures to reduce noise impact.

This Noise Action Plan primarily considers the long-term environmental noise impact from road traffic noise sources and sets out an approach to review noise impact levels near to the major sources assessed during the strategic noise mapping. In the interests of equality and promotion of best practice the action plan also sets out a few proposals for the prevention and avoidance of environmental noise levels detrimental to human health to be implemented through the planning process, these being applicable throughout County Sligo.

11.1 Summary of Actions

Increased levels of environmental noise will be prevented and avoided, where possible, within the requirements of the Development Plan, Local Area Plans and sustainable development, through the whole of Sligo County, by integration of noise management into the planning process for the development of new noise sensitive premises, or sources of long-term environmental noise, such as road, railways and industrial sites. The following actions will be carried out:

- Review existing noise control policies contained within current Development Plans and other planning guidance documents.
- On completion of review, prepare and publish county planning guidance on noise assessment and control to be incorporated into future development plans.
- Monitor and assess the implementation of the planning guidance on reducing adverse impacts associated with noise.

Noise reduction of existing sources of long-term environmental noise, where necessary, will be considered within the area covered by the strategic noise mapping undertaken by TII. The approach to the assessment of relevant actions will use the following approach:

- Review strategic noise maps.
- Where required, confirm the extent of the noise impact through refined noise modelling and/or long-term noise monitoring.
- Review list of Priority Important Areas for noise mitigation review.
- Assess all identified sites:
    - In context of proposed development & maintenance.
    - Assess possible mitigation measures.

The preservation of relatively quiet areas in the vicinity of major noise sources, and quiet areas in the open countryside, will be considered and reviewed as part of the implementation of the noise action plan. Any possible designations which may be recommended by such a process would go to public consultation prior to submission to the Minister for adoption.

Prepare relevant information for next round of strategic noise mapping

Appendix A: Strategic Noise Maps

M.I.A_7.5_HA

M.I.A_10_HA

M.I.A_15_HA

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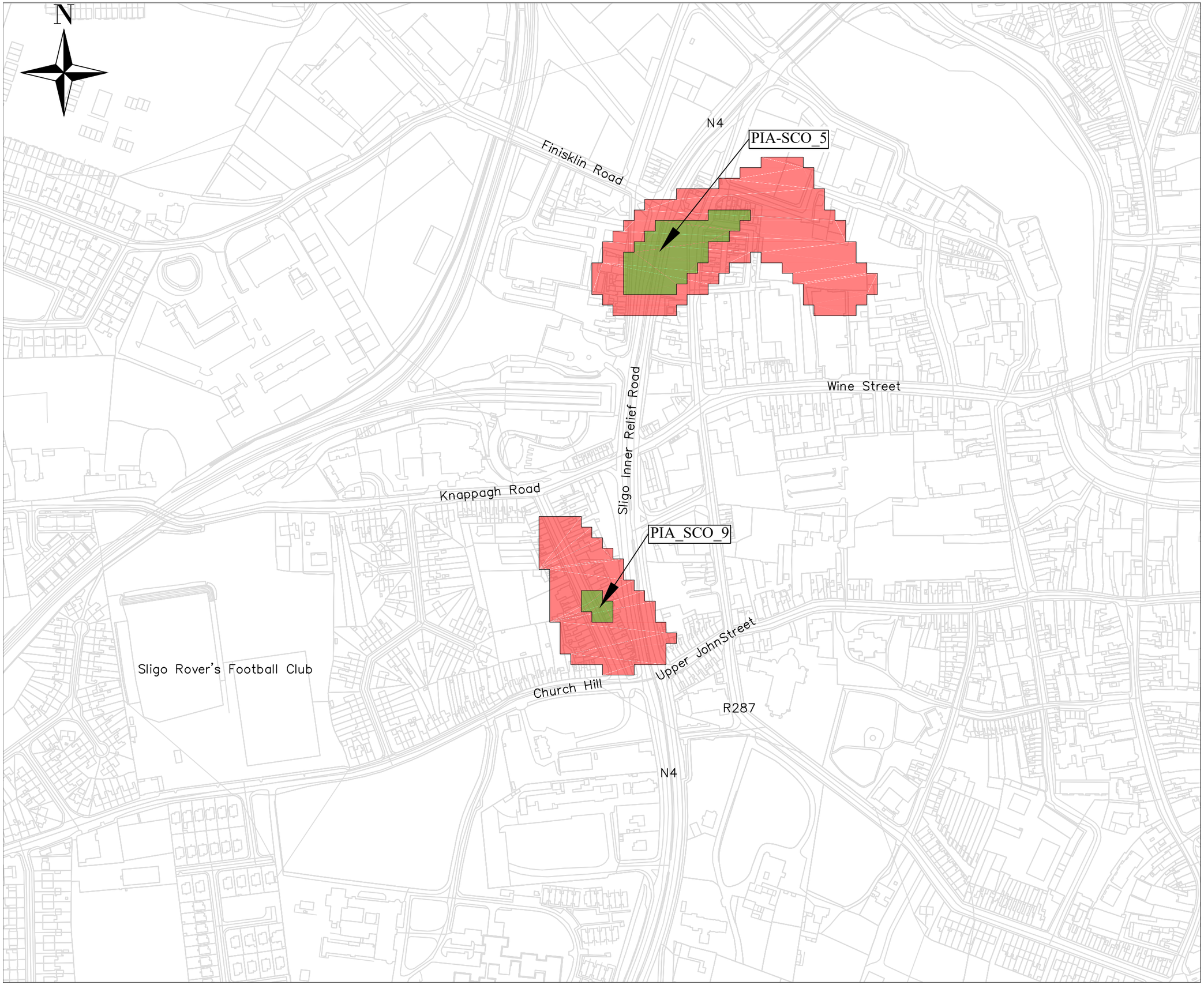

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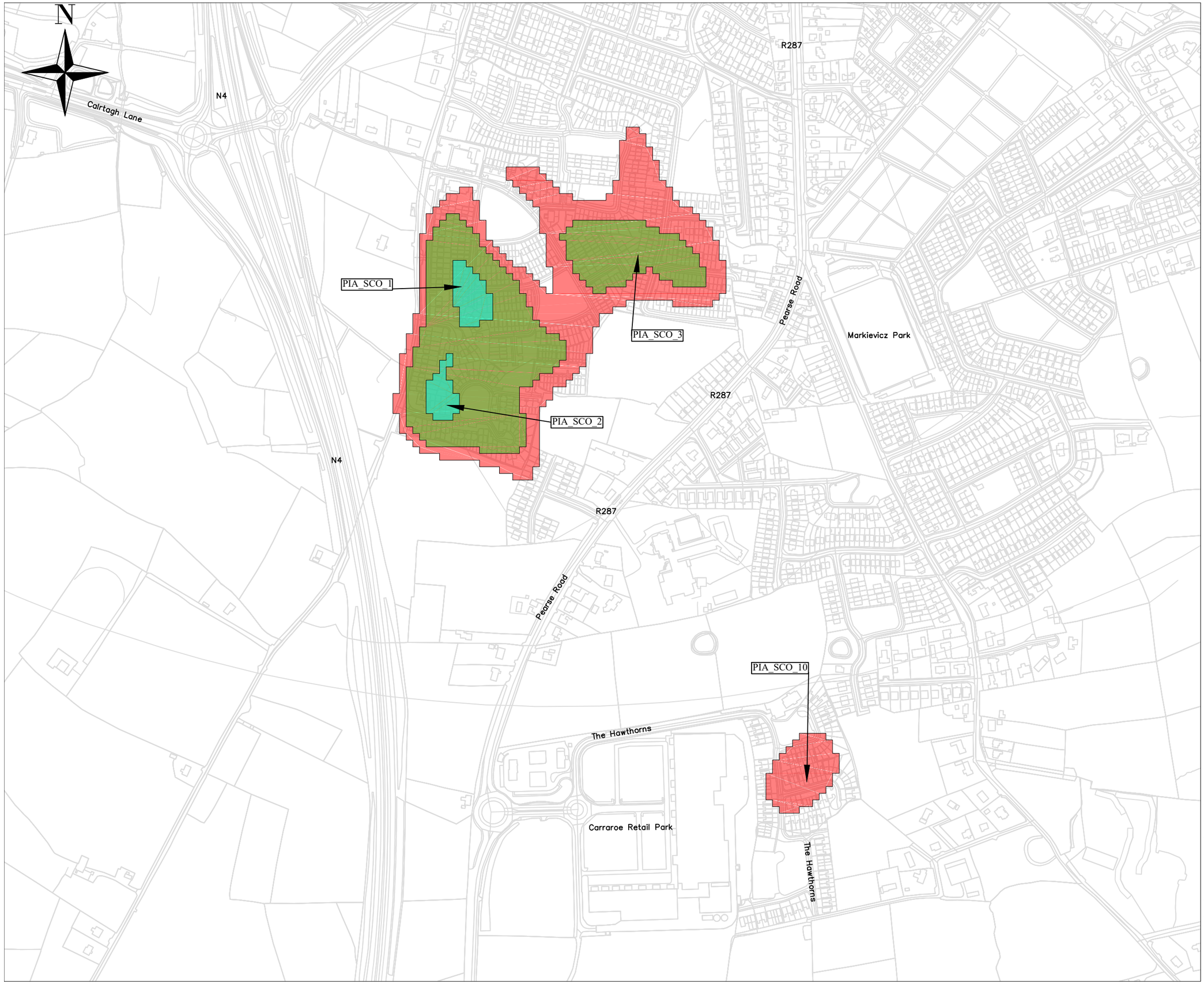

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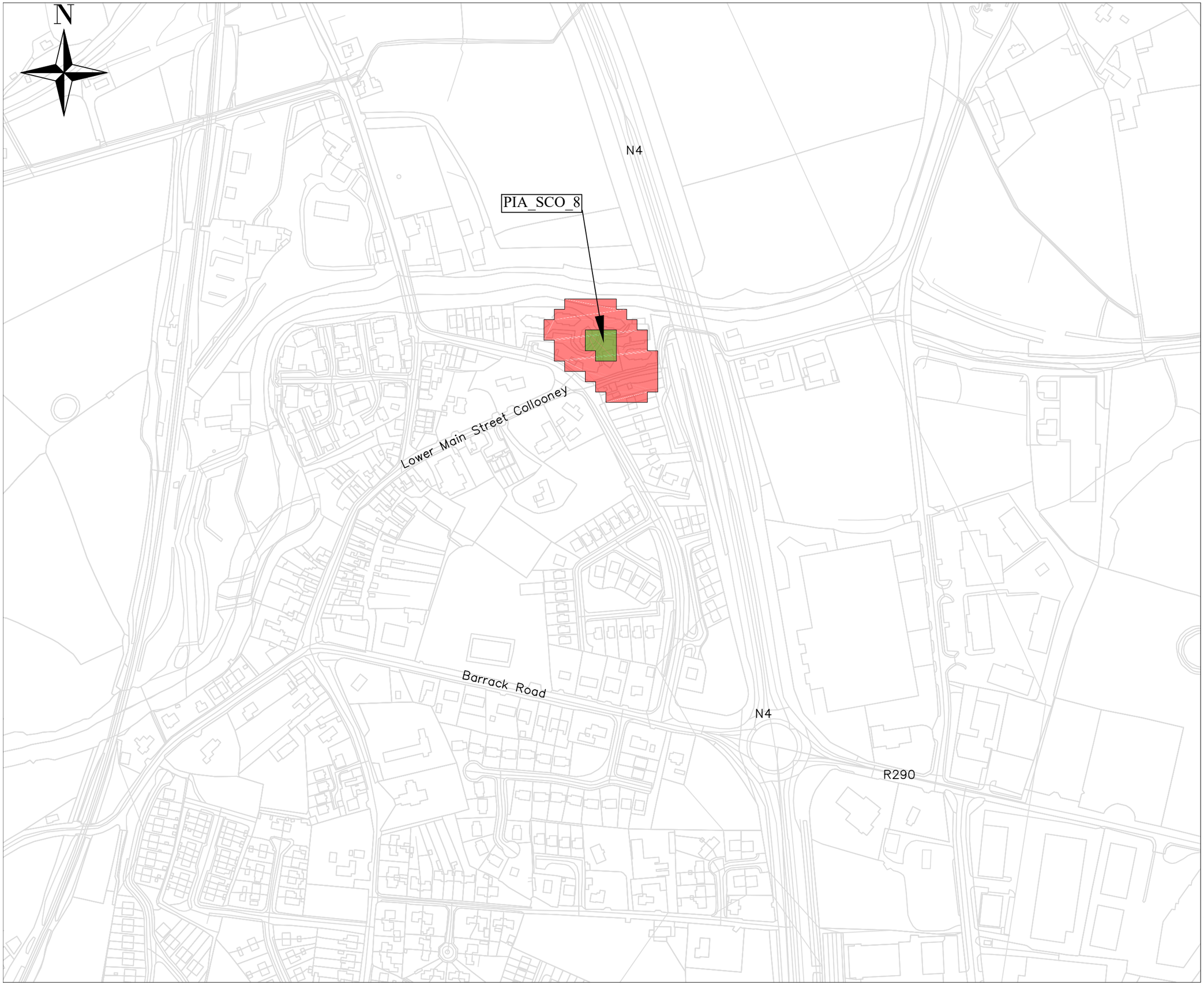

M.I.A_7.5_HA

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Appendix B: Indicative List of Priority Important Areas (PIA) Summary – Sligo County Council

Table: Indicative List of Priority Important Areas (PIA) Summary – Sligo County Council

PIA	Total Population in PIA	Source	MIA Criterion - People HA per 100 m^2	Area (m^2)	HA	HSD	IHD	Road 53 dB L_{den}	Road 45 dB L_{night}
SOC_1	46.81	ROAD	15	4,440	7.92	2.58	0.01	46.81	46.81
SOC_2	20.94	ROAD	15	3,200	3.44	1.1	0	20.94	20.94
SOC_2	204.18	ROAD	10	20,200	25.69	7.89	0.02	204.18	204.18
SOC_3	170.57	ROAD	10	16,600	20.57	6.24	0.01	167.61	161.67
SOC_4	81.24	ROAD	10	12,300	16.53	5.44	0.02	81.24	81.24
SOC_5	25.11	ROAD	10	5,300	6.94	2.37	0.010	25.11	25.11
SOC_6	19.02	ROAD	10	1,900	2.29	0.71	0	19.02	19.02
SOC_7	12.24	ROAD	10	1,400	2.66	0.76	0	12.24	12.24
SOC_8	8.94	ROAD	10	800	2.19	0.73	0	8.94	8.94
SOC_9	4.33	ROAD	10	700	1.53	0.52	0	4.33	4.33
SOC_10	90.24	ROAD	7.5	9,200	10.25	3.14	0.01	85.23	85.23

IA – Important Area, PIA Priority Important Area, HA – Highly Annoyed, HSD – Highly Sleep Disturbed, IHD – Ischaemic Heart Disease