



**Comhairle Contae  
Dhún na nGall**  
Donegal County Council

# **Donegal Noise Action Plan 2024 - 2028**

**APRIL 2024**

## EXECUTIVE SUMMARY

The European Community Directive 2002/49/EC (known as the Environmental Noise Directive or “END”) deals with the assessment and management of environmental noise. END was transposed into Irish Law by the European Communities (Environmental Noise) Regulations 2018 which were subsequently amended through the European Communities (Environmental Noise) (Amendment) Regulations 2021, S.I. No. 663 of 2021.

Regulation (EU) 2019/1010 on the alignment of report obligations postponed Round 4 noise action plans from 18 July 2023 to 18 July 2024 (Article 2 (2)). The five yearly cycles set out in Directive 2002/49/EC will then resume from Round 5. This means that the Round 4 NAPs have a 4-year implementation period, rather than the usual 5-year period.

There are no statutory noise limits currently in place in Ireland, except for (a) those referenced in the Planning and Development Regulations 2008 (S.I. No. 235/2008) in relation to small scale energy production, such as boilers, wind turbines, heat pumps and CHP plants, and (b) by-laws issued in relation to busking.

Donegal County Council is the “Action Planning Authority” for Donegal and it is a statutory function (in relation to environmental protection for the purposes of Section 63 of the Environmental Protection Agency Act 1992) for the Council to provide a Noise Action Plan in consultation with the EPA and the noise mapping bodies and in accordance with EPA specified dates as set out below :

- Q1 2024: Develop Draft Noise Action Plan
- Q2 2024: Public consultation (8 weeks) on Draft Noise Action Plan
- 18 July 2024: Latest date at which Noise Action Plans are to be made
- 18 August 2024: Latest date for which Noise Action Plans are to be published
- 18 August 2024: Latest date for which summaries of Noise Action Plans are to be submitted to the EPA
- 18 January 2025: Summary Noise Action Plans to be reported using EEA Reportnet 3

Following consultation with both the EPA, the noise mapping bodies, Donegal Planning Authority and the Donegal National Road Design Office, Donegal County Council developed its Noise Action Plan (NAP) during Q1 2024. Same will now be published in draft format for public consultation for an 8-week period. The draft NAP will be submitted to the EPA for review during the public consultation period. A summary of the submissions and observations will be included in Appendix C of the final Noise Action Plan (NAP) and said plan (as amended) will then be presented to the Plenary Council for information purposes, before same is made before 18<sup>th</sup> July 2024 and subsequently published and submitted to the EPA before 18<sup>th</sup> August 2024.

The Action Planning Authority will be required to implement the plan over a 4-year period (2024-2028) and provide annual reports on progress to the EPA.

The EPA provided a guidance note for Noise Action Planning and same has been followed in the development of the Donegal Noise Action Plan.

The NAP sets out an introduction to the plan and summarises noise and its effect on health and quality of life. It outlines both the EU and the national legal and policy frameworks and provides details of the responsible authority for Action Planning and a description of the Action Planning area.

The NAP then sets out the existing noise management framework and summarises the results of the noise mapping process. From the noise mapping results, the areas to be subjected to noise management activities are then identified and potential mitigation and protection measures are established.

During the next 4-year period the implementation of the NAP will result in more detailed assessment and analysis on solutions for the 10 identified Priority Important Areas and subsequent programme of works and actions will be delivered subject to verification of noise mapping results and funding.

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## 1. INTRODUCTION

### 1.1 Policy Objective

The European Community Directive 2002/49/EC (known as the Environmental Noise Directive or “END”) deals with the assessment and management of environmental noise. END was transposed into Irish Law by the European Communities (Environmental Noise) Regulations 2018, SI No. 549 of 2018 (Regulations). The regulations both revise and revoke the Environmental Noise Regulations 2006, S.I. 140/2006, & transpose Directive 2015/996. The Regulations were amended through the European Communities (Environmental Noise) (Amendment) Regulations 2021, S.I. No. 663 of 2021.

For the purposes of the Directive and Regulations, 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 specified 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 or due to military activities in military areas.

The Regulations designated Action Planning Authorities for the purpose of making and approving Noise Action Plans. Donegal County Council is the designated Authority for major roads / railways / airports in its functional area and its Noise Action Plan must be made in consultation with the EPA and the noise mapping bodies. The Regulations also state that the requirement to provide action plans on specified dates is a statutory function of an Action Planning Authority in relation to environmental protection for the purposes of Section 63 of the Environmental Protection Agency Act 1992. Donegal County Council is the “Action Planning Authority” for Donegal and it is a statutory requirement for the Council to comply with the END and to promote pro-active management of noise at the locations as identified through the strategic noise mapping process.

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.”*

### 1.2 Purpose

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”*. The Regulations apply to environmental noise to which people are exposed, in particular in built up areas, in public parks or other quiet areas in an agglomeration, in quiet areas in open country, near schools, near hospitals, and near other noise-sensitive buildings and areas where environmental noise is defined as 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.

The integrated noise management process is set out in three stages:

- Undertake strategic noise mapping to determine exposure to environmental noise
- Ensure information on environmental noise and its effects is 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



The Directive defines noise mapping, strategic noise maps and action plans as:

- **noise mapping** shall mean the presentation of data on an existing or predicted noise situation in terms of a noise indicator, indicating breaches of any relevant limit value in force, the number of people affected in a certain area, or the number of dwellings exposed to certain values of a noise indicator in a certain area;
- **strategic noise map** shall mean a map designed for the global assessment of noise exposure in a given area due to different noise sources or for overall predictions for such an area;
- **action plans** shall mean plans designed to manage noise issues and effects, including noise reduction if necessary.

### 1.3 Scope

The Noise Action Plan is to be designed for the purpose of managing noise issues and their effects, including noise reduction if necessary. The Noise Action Plan for Donegal must cover areas affected by environmental noise, as identified by the strategic noise mapping, for each of the following areas:

- (a) places near a major road
- (b) places near a major railway and
- (c) places near a major airport (subject to thresholds)

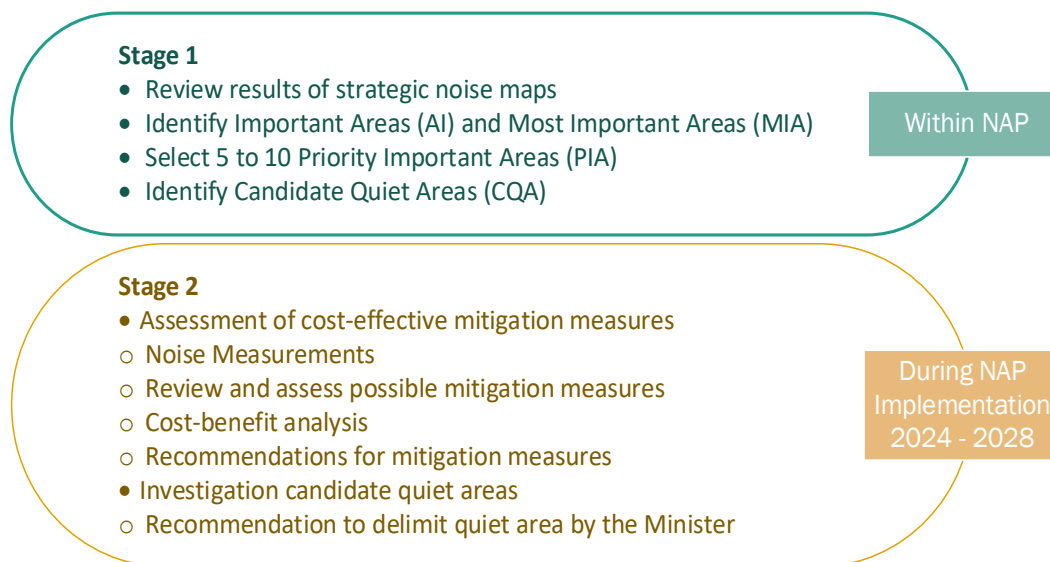
This Noise Action Plan will also commence the process of identifying and subsequently protecting a quiet area in one of the large agglomerations.

The Fourth Schedule of the Regulations sets out the minimum requirements for Action Plans, as per the following:

Minimum Requirements for Noise Action Plans	
1. An action plan must at least include the following elements:	<ul style="list-style-type: none"> <li>• A description of the agglomeration, the major roads, the major railways or major airports and other noise sources taken into account</li> <li>• the authority responsible</li> <li>• the legal context</li> <li>• any statutory limit values in place</li> <li>• a summary of the results of the noise mapping</li> <li>• an evaluation of the estimated number of people exposed to noise, identification of problems, and situations that need to be improved</li> <li>• a record of the public consultations organised in accordance with Regulation 12(5)</li> <li>• any noise-reduction measures already in force and any projects in preparation</li> <li>• actions which the action planning authorities intend to take in the next five years, including any measures to preserve quiet areas</li> <li>• long-term strategy</li> <li>• financial information (if available): budgets, cost-effectiveness assessment, cost-benefit assessment</li> <li>• provisions envisaged for evaluating the implementation and the results of the action plan</li> </ul>
2. The actions which the action planning authorities intend to take in the fields within their competence may for example include:	<ul style="list-style-type: none"> <li>• Traffic planning</li> <li>• Land-use planning</li> <li>• Technical measures at noise sources</li> <li>• Selection of quieter sources</li> <li>• Reduction of sound transmission</li> <li>• Regulatory or economic measures or incentives</li> </ul>
3. Each action plan should contain estimates in terms of the reduction of the number of people affected (annoyed, sleep disturbed, or other)	

## Round Four Action Plans

The noise actions plans are to be drawn up on the basis of the results of the strategic noise mapping of road, railway, aircraft and industrial noise sources. The strategic noise maps provide graphical and statistical data on the exposure of people, dwellings and areas to noise. In order to meet the requirements of the Regulations, the EPA Draft Guidance Notes For Noise Action Planning (January 2024) recommends the following approach for Local Authorities (APAs) to follow when determining actions to be undertaken at noise sensitive locations.



Where :

- **Important Areas (IA)** – these are locations exposed to environmental noise which may be harmful to human health, as indicated by WHO guidance
- **Most Important Areas (MIA)** – 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 exposed to noise
- **Priority Important Areas (PIA)** – between 5 and 10 MIAs, or groups of similarly affected MIAs, identified as those which will be addressed during the implementation of the Noise Action Plan

### 1.4 Consultation

The Environmental Noise Directive and the Noise Regulations provide for strategic noise maps and Noise Action Plans to be made available to the general public. They also provide for public consultation on proposed action plans and for the results of public consultation to be taken into account in finalising the action plans.

Article 11(6) of the END imposes the following duty on member states in relation to public consultation: “*Member States shall ensure that the public is consulted about proposals for action plans, given early and effective opportunities to participate in the preparation and review of the action plans, that the results of that participation are taken into account and that the public is informed on the decisions taken. Reasonable time frames shall be provided allowing sufficient time for each stage of public participation. If the obligation to carry out a public participation procedure arises simultaneously from this Directive and any other Community legislation, Member States may provide for joint procedures in order to avoid duplication.*”

Regulation 12(2) of SI 140 of 2006 provides that: “*Information for the public on noise maps and action plans shall be clear, comprehensive and accessible and shall include a summary of the most important points*”

It is the policy of Donegal County Council to engage in public consultation with our citizens with regards to policies and plans developed by Donegal County Council for Donegal, in accordance with national guidelines and best practice (*Department of the Public Expenditure and Reform Consultation Principles & Guidance*).

Public consultation was organized in accordance with Regulation 12 (5) of the Regulations and details pertaining to the description of the consultations, the associated results and the inclusion of feedback into the Action Plan and the details of how the public was informed of the decisions taken are included in **Appendix C** of this Plan, in accordance with the EPA guidelines (January 2024).

### **1.5 Noise Action Plan Timetable**

Under the Regulations, the Action Planning Authorities must make fourth round noise action plans by 18<sup>th</sup> July 2024. Furthermore, within one month of the noise action plan being made, the action planning authority shall:

- Make the noise action plan available to the public; and
- Submit a summary of the NAP to the EPA

Once the Draft Noise Action Plan has been prepared, a formal public consultation exercise should be undertaken. Action Planning Authorities should allow a minimum of 6 weeks for consultation, and a further 2 weeks for submissions, for the general public to have adequate time to participate in this process. In view of these requirements, an indicative timeline for Round 4 noise actions plans were set out as follows :

- Q1 2024: Develop Draft Noise Action Plan
- Q2 2024: Public consultation (6 – 8 weeks) on Draft Noise Action Plan
- 18 July 2024: Latest date at which Noise Action Plans are to be made
- 18 August 2024: Latest date for which Noise Action Plans are to be published
- 18 August 2024: Latest date for which summaries of Noise Action Plans are to be submitted to the EPA
- 18 January 2025: Summary Noise Action Plans to be reported using EEA Reportnet 3 – ENDRM DF7\_10

Regulation (EU) 2019/1010 on the alignment of report obligations postponed Round 4 Noise Action Plans from 18 July 2023 to 18 July 2024 (Article 2 (2)). The five yearly cycles set out in Directive 2002/49/EC will then resume from Round 5. This means that the Round 4 NAPs have a 4-year implementation period, rather than the usual 5-year period.

## 2. NOISE AND EFFECTS ON HEALTH AND QUALITY OF LIFE

### 2.1 Noise Level Indicators

There are a range of noise metrics that can be used to describe and manage environmental noise. It is universally recognised that there is not one single noise metric that can be used for assessing, describing and communicating noise effects completely. For example, some noise metrics are better correlated with describing long-term health effects, whereas others are best used to describe the amount of noise produced and experienced during a short duration noise event, such as an aircraft overflight or a train passing-by.

Some of these noise metrics are used to help develop policies and describe overall exposure to noise, namely  $L_{eq}$  noise metrics. These noise metrics describe the 'equivalent continuous sound level' and are a measure of the average sound energy over time. Whilst these are often described as 'an average' it is important to note that these allow a comparison of the total amount of noise exposure in one location with that of another.

To provide a standardised approach to the description of long-term environmental noise, Article 6.2 of the END specifies the use of two noise level indicators when preparing environmental noise maps and action plans, the  $L_{den}$  and  $L_{night}$ . The  $L_{den}$  is a noise rating indicator, rather than a noise level, based upon the day, evening and night time noise levels, with weightings applied for the different periods.  $L_{night}$  is typically used to assess sleep disturbance.

Noise level indicators used for Noise Maps

$L_{den}$	<ul style="list-style-type: none"><li>• Day-evening-night noise indicator</li><li>• Representative of 24hr period</li><li>• 5 dB penalty applied to evening levels and 10 dB penalty to night levels to reflect people's extra sensitivity to noise during these periods</li><li>• Noise indicator for overall annoyance</li></ul>
$L_{night}$	<ul style="list-style-type: none"><li>• Night-time equivalent sound level</li><li>• Representative of night period (2300-0700 hr)</li><li>• Noise indicator for sleep disturbance</li></ul>

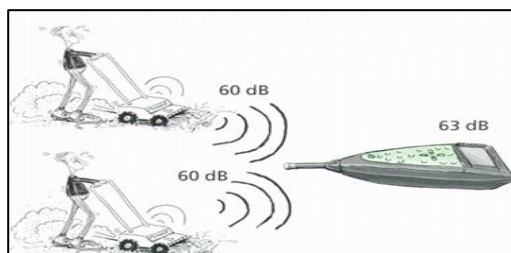
The long-term, annual average, day, evening and night values are determined and then combined to provide the indicated  $L_{den}$  yearly average. Penalties are applied to evening and night time periods during the assessment of  $L_{den}$  to take into account evidence showing that response to noise levels is not uniform throughout the 24-hour period. For example, a given indicated level of noise during the day may be deemed acceptable by the majority of people. However, that same level of noise at night may be deemed less acceptable. Other metrics relevant to environmental noise, all expressed in terms of dB, are listed in Table 2.1 below.

Other noise level indicators relevant to environmental noise

$L_{Amax}$	<ul style="list-style-type: none"><li>• Maximum sound level during measurement period</li></ul>
$L_{Aeq, T}$	<ul style="list-style-type: none"><li>• Equivalent sound level of period of T hours</li><li>• Most common are <math>L_{Aeq, 16hr}</math>, <math>L_{Aeq, 24hr}</math></li></ul>
<b>SEL</b>	<ul style="list-style-type: none"><li>• Numerically equivalent to the total sound energy of an event normalised to 1-second</li></ul>

The  $L_{Aeq, 16hr}$  noise metric has been used in planning and noise management decisions as a representation of the overall daytime noise level, alongside the  $L_{night}$  level which is a  $L_{Aeq, 8hr}$  noise level.

Noise is typically defined as "unwanted sound" or a sound that is loud, unpleasant, unexpected, or undesired, sound being pressure variations in the air which the human ear can detect. Sound levels are expressed in decibels (dB) on a logarithmic scale, where 0dB is nominally the "threshold of hearing" and 120dB is nominally the "threshold of pain".

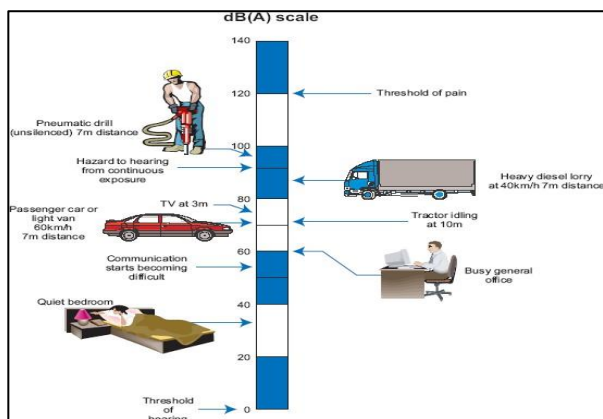


*Twice the sound energy measures 3 dB more (Brüel & Kjaer Environmental Noise Booklet, 2000)*

One effect of using the decibel scale is that a doubling of the sound energy results in a 3 dB increase in the sound level as illustrated above. If one lawnmower produces a sound level of 60 dB, and we add a second one at the same sound level, we will measure a total of 63 dB. If we had 10 lawnmowers producing a sound level of 60 dB each we would measure about 70 dB.

Depending upon the circumstances and characteristics of the sound in question, a change in level of 3dB is just perceptible, whereas an increase of 10dB is perceived as a subjective doubling of loudness.

The frequency of sound is the rate at which a sound wave oscillates and is expressed in Hertz (Hz). The sensitivity of the human ear to different frequencies in the audible range is not uniform. For example, hearing sensitivity decreases markedly as frequency falls below 250Hz. A mechanism known as "A-weighting" has been adopted in order to account for this nonlinearity of the human ear. Sound levels expressed using "A-weighting" are typically denoted dB(A).



An indication of the level of some common sounds on the dB(A) scale is presented in the adjacent figure, which shows a quiet bedroom at around 35 dB(A), a nearby noisy HGV at 90 dB(A) and a pneumatic drill at about 100 dB(A).

There are many ways of defining sound pressure levels through the use of statistical indicators. The choice of relevant indicator is often related to the type or nature of the sound being represented.

## 2.2 Effects on Health and Quality of Life

Noise can have a significant and disruptive effect on everyday life. Since the implementation of the Environmental Noise Regulations, there have been extensive studies conducted on the links between environmental noise exposure and health. These studies have taken transportation noise sources including road, rail and aircraft into consideration, with responses differing depending on the source. This research has shown evidence supporting the association of environmental noise with some or all of the following health conditions:

- Cardiovascular disease - including hypertension, coronary heart disease (CHD), acute myocardial infarction (AMI) and stroke
- Cognitive impairment – including the impact on children's reading and education
- Sleep disturbance – i.e., interference with sleep and awakenings
- Annoyance – i.e., becoming or increasingly disturbed or bothered by noise and
- Wellbeing – i.e., impacts on quality of life and mental health

In general, noise levels in cities can range between 60-70 dB(A), with suburban levels between 50-60 dB(A). In October 2018, the World Health Organisation published “Environmental Noise Guidelines for the European Region”. The main purpose of the guidelines is to provide recommendations for protecting human health from exposure to environmental noise originating from various sources: transportation (road traffic, railway and aircraft) noise, wind turbine noise and leisure noise. A summary of the WHO guideline levels is shown in the table below :

Level of effect	Source	Level	WHO Guidelines
No effects on sleep are observed	Any	below 30 dB $L_{night}$ , inside below 42 dB $L_{Amax}$ , inside	NNG 2009
Lowest observed adverse effect level (LOAEL) for night noise	Any	40 dB $L_{night}$ , outside	NNG 2009
Noise above these levels is associated with adverse health effects and adverse effects on sleep	Aircraft	45 dB $L_{den}$ , outside 40 dB $L_{night}$ , outside	ENG 2018
	Railways	54 dB $L_{den}$ , outside 44 dB $L_{night}$ , outside	ENG 2018
	Roads	53 dB $L_{den}$ , outside 45 dB $L_{night}$ , outside	ENG 2018
	Wind Turbines	45 dB $L_{den}$ , outside	ENG 2018

The WHO guidelines are intended to serve as the basis for a policy making process in which policy options are considered. Policy areas affected include development and land use planning, public health, and building standards along with wider economic and social considerations relating to the specific noise source, particularly transport infrastructure such as roads, railways and airports.

The WHO guidelines scientifically show that the onset of health effects occur at 40 to 45 dB  $L_{night}$ , and that health effects certainly occur above a range of 45 to 53 dB  $L_{den}$ , depending upon the noise source. The research underpinning the WHO guidelines also indicate that the impact on health increases as long-term exposure to environmental noise increases, and that significant adverse effects are likely to occur above approximately 53 dB  $L_{den}$  and 45dB  $L_{night}$  for road traffic noise and from aircraft noise exceeding 45dB  $L_{den}$  and 40dB  $L_{night}$ .

Transport-related environmental noise is the most significant contributor to community noise, causing most annoyance, sleep disturbance and public health concerns.

Road traffic noise is the most significant contributor to environmental noise, with an estimated 210 million European Union (EU) citizens regularly exposed to 55 dB(A) or more of road traffic noise. The major contributors to road traffic noise are passenger cars and lorries, with minor contributions from buses and motorcycles.

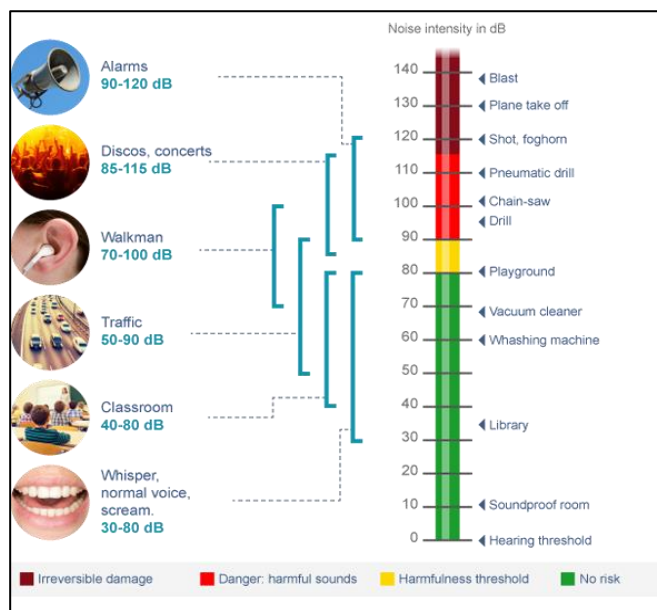
Railway noise is the second most dominant source of environmental noise in Europe, with approximately 9 million people exposed to levels above 50 dB(A) at night. Railway noise arises from engine noise, rolling noise and aerodynamic noise.

In Europe, aircraft noise affects a much smaller portion of the population compared to rail and road traffic noise. However, aircraft noise is regarded as being more annoying than both rail and road traffic noise at the same exposure level.

Most of the evidence gathered by researchers over the past 10 years appears to indicate that people are becoming more annoyed by environmental noise and that the health effects of environmental noise occur at lower levels of exposure than previously thought. Research is ongoing, and it is expected that further guidelines from WHO will be issued during the course of this 4 year Noise Action Plan.

In this Noise Action Plan, the term 'noise' will generally be used when describing the quantification, control or prediction of emissions from environmental pollution sources, such as transport and industry. The term 'sound' will be used when describing levels not attributed to a specific environmental pollution source, such as for the description of the existing baseline climate at a receptor location.

Sound levels are expressed in decibels (dB) on a logarithmic scale, where 0 dB is nominally the "threshold of hearing" and 120 dB is nominally the "threshold of pain". One effect of using the decibel scale is that a doubling of the sound energy results in a 3 dB increase in the sound level, whilst a 10 dB increase is often described as a doubling in the perceived loudness of the sound level.



Levels of typical common sounds on the dB(A) Scale (cochlea.org)

### 3. EU LEGAL AND POLICY FRAMEWORK

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.

#### 3.1 EU Policy and Guidance

European Union directives and regulations seek to define common policies across Europe. Those which are most relevant to noise are set out below. European Directives need to be implemented in each Member State via national primary legislation. EU Regulations are directly applicable in all Member States without the need for national primary legislation, however there will often need to be a related piece of national legislation to establish or designate the relevant competent authorities and assign any powers necessary to the role.

#### 3.2 Zero Pollution Action Plan

In May 2021 the EU launched the Zero Pollution Action Plan<sup>1</sup> (ZPAP) with a vision for 2050 that air, water and soil pollution is reduced to levels no longer harmful to health and natural ecosystems. The targets by 2030 include *“reducing the share of people chronically disturbed by transport noise by 30%”*, compared to 2017.

The first integrated Zero Pollution Monitoring and Outlook Report<sup>2</sup> from the Commission to the European Parliament was published in December 2022, and estimated that the number of people chronically disturbed by road transport noise is unlikely to decline by more than 19% by 2030 (i.e. well below the 30% reduction target set in the zero pollution action plan) unless a substantial set of additional measures is taken at national, regional and local level and unless reinforced EU action across relevant sectors delivers significant further reduction in noise pollution.

In support of the ZPAP noise target for 2030 ZPAP, PHENOMENA<sup>3</sup> project was undertaken to identify cost-effective noise mitigation measures which may help competent authorities to achieve noise reductions across large parts of the exposed population.

#### 3.3 EEA Reports

##### **EU Regulation 2019/1010**

Regulation 2019/1010<sup>4</sup> on alignment of reporting obligations in the field of legislation related to the environment and amending Directive 2002/49/EC. EU Regulation 2019/1010 was given full effect in Ireland through European Communities (Environmental Noise) (Amendment) Regulations 2021.

END Annex VI Data to be sent to the Commission sets out the mandatory reporting requirements. Prior to Round 4 (R4), reporting was undertaken on a voluntary basis through the European Environment Agency (EEA) Reportnet 2.0 system.

Regulation 2019/1010 establishes the EEA as managers of a data repository and requires that a subsequent implementing act will establish a mandatory reporting mechanism for R4 in accordance with the INSPIRE Directive 2007/2/EC, and Directive 2003/4/EC on public access to environmental information. It also provides for an additional 12 months for the development of R4 noise action plans, which are now due before 18 July 2024. The

<sup>1</sup> [https://environment.ec.europa.eu/strategy/zero-pollution-action-plan\\_en](https://environment.ec.europa.eu/strategy/zero-pollution-action-plan_en) [accessed October 2022]

<sup>2</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0674> [Accessed December 2023]

<sup>3</sup> European Commission, Directorate-General for Environment, Kantor, E., Klebba, M., Richer, C. et al., Assessment of potential health benefits of noise abatement measures in the EU: Phenomena project, Publications Office, 2021. Available at: <https://data.europa.eu/doi/10.2779/24566>, 2021. [Accessed December 2023]

<sup>4</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R1010> [Accessed December 2023]

European Environment Agency (EEA) has now developed Reportnet 3<sup>5</sup> which includes the R4 mandatory reporting templates and the final reporting formats. There are cross-checks between DF4\_8 (noise sources) dataflow and DF1\_5 (noise maps).

### **Commission Implementing Decision (EU) 2021/1967**

Commission Implementing Decisions (EU) 2021/1967<sup>6</sup> setting up a mandatory data repository and a mandatory digital information exchange mechanism in accordance with Directive 2002/49/EC, fulfils the requirement under Regulation 2019/1010 for an implementing act to establish mandatory reporting under the END to the EEA Reportnet platform. Commission Implementing Decision (EU) 2021/1967 is given full effect in the regulations through European Communities (Environmental Noise) (Amendment) Regulations 2021.

## **3.4 EU Regulations and Guidance**

### **Environmental Noise Directive “END”**

Directive 2002/49/EC of the European Parliament and of the Council relates to the assessment and management of environmental noise and is commonly referred to as the Environmental Noise Directive or END<sup>7</sup>. 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”*.

The END requires Member States to conduct the three stages of the process each five years:

- Strategic noise maps (SNM) are to be made or revised showing the situation in the preceding calendar year in 2007, 2012, 2017, 2022, 2027 etc<sup>8</sup>.
- Noise action plans (NAP) are to be drawn up, and designed to manage noise issues and effects, including noise reduction, if necessary, in 2008, 2013, 2018, 2024, 2028 etc. The public are to be consulted about proposals for action plans<sup>9</sup>.
- Strategic noise maps and noise action plans are to be made available to the public and disseminated in accordance with relevant Community legislation. This information shall be clear, comprehensible, and accessible<sup>10</sup>. In addition to the main explanatory articles the Directive includes:
  - Annex I – Noise Indicators
  - Annex II – Assessment Methods for the Noise Indicators
  - Annex III – Assessment Methods for Harmful Effects
  - Annex IV - Minimum Requirements for Strategic Noise Mapping
  - Annex V - Minimum Requirements for Action Plans
  - Annex VI - Data to be Sent to the Commission

### **EU Directive 2015/996**

In July 2015 the Commission published Directive 2015/996 establishing common noise assessment methods according to Directive 2002/49/EC of the European Parliament and of the Council. This replaced Annex II of the END, removed the recommended Interim Methods, and established the common noise assessment methods. The Directive sets out the noise calculation methods (CNOSSOS-EU) in the Annex, and some guidance on aircraft modelling, and database tables of input data for roads, railways and aircraft in a series of Appendices. The Directive is an EC legal document which was to be transposed into law within each Member State by 31 December 2018. The CNOSSOS-EU methods set out within the Directive are to be used for strategic noise maps under the END from 31 December 2018. The CNOSSOS-EU methodologies within Directive 2015/996 may be summarised as follows:

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<sup>5</sup> Available at: <https://reportnet.europa.eu/> [Accessed December 2023]

<sup>6</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021D1967> [Accessed December 2023]

<sup>7</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02002L0049-20210729> [Accessed December 2023]

<sup>8</sup> END Article 7

<sup>9</sup> END Article 8, as amended by Regulation (EU) 2019/1010

<sup>10</sup> END Article 9

- Road traffic source
- Railway traffic source
- Industrial noise sources
- Propagation model for road, railway and industrial sources
- Aircraft
- Exposure assessment

European Communities (Environmental Noise) Regulations 2018<sup>11</sup> (S.I. 549/2018) transposed Commission Directive (EU) 2015/996 into Irish law.

### ***Corrigendum to CNOSSOS-EU 2018***

Shortly after Directive 2015/996 was published in 2015, a number of typographical and formatting errors were identified. The majority of these related to the railway source model. These errors were addressed within the Corrigendum<sup>12</sup> published in January 2018.

### ***EU Directive 2020/367***

Directive 2020/367<sup>13</sup> amending Annex III of the END and establishing health impact assessment methods. EU Directive 2020/367 was transposed into the Second Schedule of the regulations through European Communities (Environmental Noise) (Amendment) Regulations 2021. In 2020, Ireland fully transposed the revised Annex III of the END. Directive 2020/637 establishes assessment methods for the harmful effects of environmental noise based on the dose-response relationship established in the WHO ENG 2018<sup>14</sup>. The health impacts to be assessed and reported are: no. of people Highly Annoyed (HA) & no. of people Highly Sleep Disturbed (HSD) for roads, railways and aircraft; and instances of Ischemic Heart Disease (IHD) for roads. These are required for agglomerations and major sources.

### ***Commission Delegated Directive (EU) 2021/1226***

Following the publication Directive 2015/996, and the Corrigendum of 2018, work continued across Europe on the implementation of the CNOSSOS-EU methodology. Through this work, a number of amendments and adaptations were identified, which along with the publication of a new version of the European Civil Aviation Conference (ECAC) noise calculation method, called ECAC Doc 29 4th version.

Commission Delegated Directive 2021/1226<sup>15</sup> was published in December 2020, and published in the Official Journal on 28<sup>th</sup> July 2021. This introduces a number of amendments to CNOSSOS-EU (Annex II of the END), including the alignment of the aircraft noise section with ECAC Doc. 29 4<sup>th</sup> Edition. Commission Delegated Directive 2021/1226 was transposed into the regulations through European Communities (Environmental Noise) (Amendment) Regulations 2021.

Within this guidance, the consolidated version of Directive 2015/996, including the 2018 Corrigendum and the 2021 Delegated Directive, is referred to as CNOSSOS-EU, whereas any reference to the original version is denoted by CNOSSOS-EU:2015.

### ***EU Regulation 598/2014***

Regulation EU No.598/2014<sup>16</sup> establishes rules and procedures with regard to the introduction of noise-related operating restrictions at EU airports within the International Civil Aviation Organisation (ICAO) Balanced approach.

<sup>11</sup> Available at: <https://www.irishstatutebook.ie/eli/2018/si/549/made/en/print> [Accessed December 2023]

<sup>12</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L0996R%2801%29> [Accessed December 2023]

<sup>13</sup> Available at: <https://eur-lex.europa.eu/eli/dir/2020/367/oj> [Accessed December 2023]

<sup>14</sup> WHO, Environmental Noise Guidelines for the European Region. Available at: <https://www.who.int/europe/publications/i/item/9789289053563> [Accessed December 2023]

<sup>15</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021L1226> [Accessed December 2023]

<sup>16</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0598> [Accessed December 2023]

This legislation applies to aircraft movements at Dublin International Airport. Regulation 598/2014 applies to all airports in Europe with more than 50,000 movements, take-offs or landings, per year<sup>17</sup>. This is the same threshold used within Directive 2002/49/EC to define a “major airport”. In Ireland Dublin International Airport is currently the only airport with more than 50,000 movements per year, it is designated as a major airport under the END, and is within the scope of Regulation 598/2014. Therefore this regulation and the assessment of Airports in Donegal is not applicable under the Round 4 NAP.

### ***EC Directive 2006/93/EC***

EC Directive 2006/93/EC<sup>18</sup> sets out requirements of EU Member States for the regulation of civil subsonic aircraft to Chicago Convention Annex 16 Volume 1, Chapter 3 (“ICAO Chapter 3” aircraft) and replaces the repealed EU Directive 92/14/EEC. The EU Member States are required to ensure that all civil subsonic aircraft operating from airports in their territory comply with the ICAO Chapter 3 requirements, barring specific exemptions, such as those of specific historical interest.

### ***Union Type-Approval Legislation (‘automotive approval’)***

Type approval describes the process applied by Type Approval Authorities to certify that a model of a vehicle meets all EU safety, environmental and conformity of production requirements before authorising it to be placed on the EU market. A manufacturer can obtain type approval certification for a vehicle type in one EU country and market it EU-wide without further tests. The certification is issued by a Type Approval Authority and the tests are carried out by the designated technical services. The applicable legislation for the automotive industry is listed below:

- Regulation (EU) 2018/858<sup>19</sup> on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles;
- Regulation (EU) No 168/2013<sup>20</sup> on the approval and market surveillance of two- or three-wheel vehicles and quadricycles;
- Regulation (EU) No 167/2013<sup>21</sup> on the approval and market surveillance of agricultural and forestry vehicles;
- Systems, components, and separate technical units intended for the above-mentioned vehicles
- Regulation (EU) 2016/1628<sup>22</sup> on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery;
- Vehicle regulations of the United Nations Economic Commission for Europe (UNECE).

Regulation (EU) 2018/858, Regulation (EU) 168/2013 and Regulation (EU) 167/2013 set the fundamental rules for the particular ‘automotive’ sector and refer to separate legislation for further technical details, including the specific requirements within the respective sector.

Regulation (EU) 2016/1628 only makes provisions for the gaseous and particulate pollutant emission limits of internal combustion engines for non-road mobile machinery and does not contain any provisions on noise emissions. Union type-approval is required to place or make automotive items and internal combustion engines for NRMM available on the EU market. It is based on requirements harmonised at Union or international level and is mutually recognised and accepted by all Member States of the Union without further testing.

For the purpose of wider harmonisation that extends beyond the borders of the European Union, which fosters technical progress and results in access to larger markets, avoidance of duplication of standards, and avoidance of repeated certification processes, where appropriate, Union type-approval is required. This legislation makes reference to those Vehicle Regulations of the United Nations Economic Commission for Europe (UNECE) adopted

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<sup>17</sup> Calculated on the basis of an average over three years

<sup>18</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006L0093> [Accessed December 2023]

<sup>19</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0858> [Accessed December 2023]

<sup>20</sup> Available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:060:0052:0128:en:PDF> [Accessed December 2023]

<sup>21</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0167> [Accessed December 2023]

<sup>22</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1628> [Accessed December 2023]

by the Union. Similar to Union type-approvals, UNECE approvals are issued and accepted by the relevant Contracting Parties (which include the EU, where relevant, and external countries).

Under Irish legislation:

- European Union (Road Vehicles: Type-Approval and Market Surveillance) Regulations 2020, S.I. No. 556/2020<sup>23</sup>, gives further effect to Regulation (EU) 2018/858;
- European Union (Two or Three Wheel Motor Vehicles and Quadricycles Type-Approval) Regulations 2015, S.I. No. 614/2015<sup>24</sup>, gives further effect to Regulation (EU) No. 168/2013;
- European Union (Agricultural or Forestry Vehicle Type Approval and Entry into Service) Regulations 2017, S.I. No. 645/2017<sup>25</sup>, gives effect to Regulation (EU) No 167/2013;
- European Union (Internal Combustion Engines for Non-Road Mobile Machinery) (Gaseous and Particulate Pollutant Emission Limits and Type-Approval) Regulations 2021, S.I. No. 735/2021<sup>26</sup>, gives full effect to Regulation (EU) 2016/1628.

Each of the 'automotive' sectors relevant within the context of noise has specific regulations and provisions concerning noise emissions. Legislation pertaining to each relevant sector includes, amongst others, vehicle specific sound level requirements that are applicable during Union type-approval according to dedicated test procedures carried out in specified test sites.

Regulation (EU) No 168/2013 prohibits the use of defeat devices that reduce the effectiveness of, amongst others, sound abatement systems during normal vehicle operation and use.

UNECE Regulation 41<sup>27</sup> applies to noise emission from motorcycles. This Regulation requires the sound emissions of the motorcycle type submitted for approval to be measured by the two methods. The first method is when the motorcycle is in motion and the second is when the motorcycle is stationary. In the case of a motorcycle where an internal combustion engine does not operate when the motorcycle is stationary, the emitted noise is measured when the motor cycle is in motion. This Regulation requires that all exhaust or silencing systems are constructed in a way that do not easily permit removal of baffles, exit-cones and other parts whose primary function is part of the silencing chambers. This Regulation requires that where incorporation of such a part is unavoidable, its method of attachment shall be such that removal is not facilitated and should also be attached such that removal causes permanent damage to the assembly.

Regulation (EU) 2019/2144<sup>28</sup> concerning type-approval requirements for motor vehicles and their trailers, systems, components and separate technical units intended for such vehicles, as regards to their general safety and the protection of vehicle occupants and vulnerable road users, lays down fundamental provisions on vehicle safety, carbon dioxide (CO<sub>2</sub>) and rolling noise emissions from tyres.

Within the context of noise, Regulation (EC) No 661/2009 has been repealed and replaced by Regulation (EU) 2019/2144, and the requirements for tyre performance included therein are replaced by the equivalent in UN Regulation Number 117<sup>29</sup>. Amongst others, UN Regulation Number 117 classifies tyres in different categories depending on intended use and sets uniform provisions concerning the approval of tyres with regard to rolling sound emissions and/or to adhesion on wet surfaces and/or to rolling resistance.

Regulation (EU) No 540/2014<sup>30</sup> establishes the administrative and technical requirements for the EU type-approval

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<sup>23</sup> Available at: <https://www.irishstatutebook.ie/eli/2020/si/556/made/en/pdf> [Accessed December 2023]

<sup>24</sup> Available at: <https://www.irishstatutebook.ie/eli/2015/si/614/made/en/pdf> [Accessed December 2023]

<sup>25</sup> Available at: <https://www.irishstatutebook.ie/eli/2017/si/645/made/en/pdf> [Accessed December 2023]

<sup>26</sup> Available at: <https://www.irishstatutebook.ie/eli/2021/si/735/made/en/pdf> [Accessed December 2023]

<sup>27</sup> Available at: <https://digitallibrary.un.org/record/661972?ln=en> [Accessed December 2023]

<sup>28</sup> Available at: <https://eur-lex.europa.eu/eli/reg/2019/2144/oj> [Accessed December 2023]

<sup>29</sup> Available at: <https://digitallibrary.un.org/record/689860?ln=en> [Accessed December 2023]

<sup>30</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0540&rid=1> [Accessed December 2023]

of all new vehicles of the categories M and N with regard to their sound level, and of replacement silencing systems and components. Regulation (EU) No 540/2014 on the sound level of motor vehicles and of replacement silencing systems came into force in July 2016 and was amended by Commission Delegated Regulation (EU) 2017/1576<sup>31</sup> and Commission Delegated Regulation (EU) 2019/839<sup>32</sup>.

Annex III of Regulation (EU) 540/2014 stipulates how noise limit values will change over time for a range of Category M and N vehicles (M1, M2, M3, N1, N2, N3 etc), as defined under Annex I of Regulation (EU) 2018/858. The established permitted noise limits for first registration 1<sup>st</sup> July 2022 range between 70dB(A) – 81dB(A), whilst the range for first registration as from 1<sup>st</sup> July 2026 range between 68 dB(A) – 79 dB(A), depending on the vehicle category. The Regulation also introduced requirements for all new electric vehicles to be fitted with an Acoustic Vehicle Alerting System (AVAS) as from April 2019. The AVAS will emit an artificial sound when the electric vehicles are running below 20 km/h to alert pedestrians of their presence.

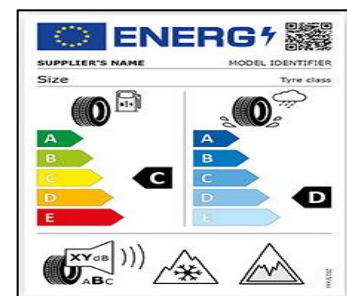
UNECE Regulation No 51<sup>33</sup> on noise of M and N categories of vehicles contains provisions on the sound emitted by motor vehicles and applies to vehicles of categories M and N. The specifications in this Regulation are intended to reproduce sound levels which are generated by vehicles during normal driving in urban traffic.

The General Safety Regulation, Regulation (EU) 2019/2144, is directly applicable in all Member States, and comes within the remit of the Road Safety Authority (RSA)<sup>34</sup> in Ireland. The National Standards Authority of Ireland (NSAI)<sup>35</sup> is the appointed authority in Ireland responsible for issuing all national approvals for brand new unregistered vehicles.

### **Regulation (EU) 2020/740**

Regulation (EU) 2020/740<sup>36</sup> sets out requirements through labelling of tyres to allow end-users to make an informed choice when purchasing tyres, for the purpose of increasing safety, the protection of health, and the economic and environmental efficiency of road transport, by promoting fuel-efficient, long-lasting and safe tyres with low noise levels. This Regulation applies to tyres produced from May 2021, for passenger cars (C1 tyres), buses and coaches, light and heavy goods vehicles, and light and heavy trailers (C2 and C3 tyres). However, this Regulation does not apply to a certain specialised category of tyres, such as those for off-road professional use, vehicles first registered before 1<sup>st</sup> October 1990 or second-hand tyres, unless imported from a non-EU country. The label below shows the required format for the tyre label, required on C1, C2 and C3 tyres produced from May 2021 and which must include certain aspects of the tyre performance such as:

- the fuel efficiency class,
- the wet grip class,
- the external rolling noise class and the measured value,
- the snow grip symbol (only if the tyre satisfies the minimum snow grip index values set out in UNECE Regulation No 117), and
- the ice grip symbol (only if the tyre satisfies the relevant minimum ice grip index values).



Using the same design as used for familiar energy labelling such as those on fridges, washing machines, and lights, the tyre label shows the tyre's fuel efficiency and wet grip classes on sliding scales from A (best) to E (worst). In the bottom part of the label, the external noise level relates to the noise produced by the tyre when the vehicle passes by and is measured in decibels (dB).

<sup>31</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1576> [Accessed December 2023]

<sup>32</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0839> [Accessed December 2023]

<sup>33</sup> Available at: <https://unece.org/transport/documents/2023/02/standards/un-regulation-no-51-rev3-amend7> [Accessed December 2023]

<sup>34</sup> <https://www.rsa.ie/road-safety/road-users/legislation> [Accessed December 2023]

<sup>35</sup> Available at: <https://www.nsai.ie/certification/automotive/> [Accessed December 2023]

<sup>36</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0740> [Accessed December 2023]

The range of external rolling noise classes (A to C) have the following interpretation:

- Class 'A' shows that the tyre's noise level is 3dB or more, better than the European limit.
- Class 'B' shows that the tyre's noise level is between the European Limit and up to 3dB better than the European limit.
- Class 'C' shows that the tyre's noise level is worse than the European limit.

As an EU Regulation, Regulation (EU) 2020/740 is directly applicable in all Member States and is given effect in Irish Legislation through European Union (Tyre Labelling) (Energy Efficiency) Regulations 2022, S.I. No. 670 or 2022<sup>37</sup>.

### **Directive 2014/45/EU**

Directive 2014/45/EU<sup>38</sup> establishes requirements for the periodic roadworthiness testing of motor vehicles. This Directive has been transposed into Irish legislation under:

- European Union (National Car Test - EU Roadworthiness Certificates) Regulations 2020, S.I. No. 554/2020<sup>39</sup>, amending the Road Traffic Act 1961 (as amended), No. 24 of 1961<sup>40</sup>; and
- European Union (Commercial Vehicle Roadworthiness) (Roadworthiness Certificate and Roadworthiness Test) Regulations 2021, S.I. No. 617/2021<sup>41</sup>, amending the Road Safety Authority (Commercial Vehicle Roadworthiness) Act 2012 (No. 16 of 2012).

Under this legal instrument, motor vehicles registered in a European Union (EU) country and their trailers must undergo periodic roadworthiness tests to ensure that they are fit to be used on the road. Annexes I and II to this directive detail the categories of vehicles to be tested, the frequency of the roadworthiness tests and the items which must be tested. Under the periodic roadworthiness test, the vehicle's noise suppression system (including exhaust silencers and under bonnet noise) is inspected. Maximum permissible exhaust sound limits for different vehicle categories and fuel types are set out in the directive and the vehicle is tested at revolutions that are at three-fourths of the maximum rated speed.

### **Directive 2014/47/EU**

Directive 2014/47/EU<sup>42</sup> sets out requirements for technical roadside inspections of roadworthiness of commercial vehicles; namely: vehicles carrying goods and passenger transport vehicles carrying more than eight passengers (Category I, Category II, Category III and Category V). The roadside test is mainly visual (and aural in the case of noise testing). Inspected vehicles identified as having exhaust noise levels in excess of those permitted, are subjected to a more elaborate test at a nearby designated testing centre.

### **EC Directive 2010/75/EU**

Directive 2010/75/EU<sup>43</sup> on industrial emissions (Integrated Pollution Prevention and Control) is the main EU instrument regulating pollutant emissions, including noise from industrial installations. The Industrial Emissions Directive (IED) aims to achieve a high level of protection of human health and the environment taken as a whole by reducing harmful industrial emissions across the EU, in particular through better application of Best Available Techniques (BAT). Around 50,000 installations undertaking the industrial activities listed in Annex I of the IED are required to operate in accordance with a permit (granted by the authorities in the Member States). This permit should contain conditions set in accordance with the principles and provisions of the IED. In Ireland, Directive 2010/75/EU is transposed under European Union (Industrial Emissions) Regulations 2013, S.I. No. 138/2013<sup>44</sup>, with the EPA designated as the competent authority for permitting under the Regulations.

<sup>37</sup> Available at: <https://www.irishstatutebook.ie/eli/2022/si/670/made/en/pdf> [Accessed December 2023]

<sup>38</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0045&rid=1> [Accessed December 2023]

<sup>39</sup> Available at: <https://www.irishstatutebook.ie/eli/2020/si/554/made/en/pdf> [Accessed December 2023]

<sup>40</sup> Available at: <https://revisedacts.lawreform.ie/eli/1961/act/24/revised/en/pdf?annotations=false> [Accessed December 2023]

<sup>41</sup> Available at: <https://www.irishstatutebook.ie/eli/2021/si/617/made/en/pdf> [Accessed December 2023]

<sup>42</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0047&rid=7> [Accessed December 2023]

<sup>43</sup> Available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:334:0017:0119:en:PDF> [Accessed December 2023]

<sup>44</sup> Available at: <https://www.irishstatutebook.ie/eli/2013/si/138/made/en/pdf> [Accessed December 2023]

## 4. NATIONAL LEGAL AND POLICY FRAMEWORK

### 4.1 National 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 Framework 2040<sup>45</sup>, 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.”*

#### ***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 to 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 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 percent by 2030 which will also influence reductions in noise from road transport.

### 4.2 National Legislation

#### ***Environmental Noise Regulations 2018***

The END is transposed into law separately in each Member state of the EU. In Ireland, this Directive is transposed by the European Communities (Environmental Noise) Regulations 2018 (as amended), S.I. No. 549 of 2018 (Regulations), and this guidance makes specific reference to articles in these Regulations. The regulations both revise and revoke the Environmental Noise Regulations 2006, S.I. 140/2006, & transpose Directive 2015/996. This guidance is issued by the Environmental Protection Agency, pursuant to the Regulations. The Regulations were amended through the European Communities (Environmental Noise) (Amendment) Regulations 2021, S.I. No. 663 of 2021. The amendment to the Regulations:

- Transposes Directive 2020/367 to the Second Schedule “Assessment Methods for Harmful Effects”;
- Transposes Commission Delegated Directive (EU) 2021/1226, amending Annex II of the END;
- Transposes EU Regulation 2019/1010 and the associated Commission Implementing Decision (EU) 2021/1967 relating to mandatory reporting under the END to the EEA Reportnet platform;
- The Sixth Schedule sets out revised definitions for the agglomerations of Cork, Dublin and Limerick, in light of urban developments over the last 15 years.

<sup>45</sup> Available at: <https://www.npf.ie/project-ireland-2040-national-planning-framework/> [Access December 2023]

## ***Environmental Protection Agency Act 1992***

In Ireland, statutory provisions relating to environmental noise pollution come primarily from the Environmental Protection Agency Act (1992)<sup>46</sup>. The Act identifies noise as a form of environmental pollution and contains provisions for dealing with noise deemed 'a nuisance or would endanger human health or damage property or harm the environment'. Sections 106 to 108 of the Act are of direct relevance, and may be summarised as follows:

- Section 106 gives the relevant Minister certain powers to regulate noise that may give rise to a nuisance or be harmful to health or property;
- Section 107 sets out the powers prescribed by the Act to a local authority or the Agency to prevent or limit noise. It typically relates to noise from sites regulated by the Agency or a local authority. This allows local authorities or the Agency to serve notices on premises/sites where prevention or limitation of noise is required. The Environmental Protection Agency Act 1992 (Noise) Regulations 1994<sup>47</sup> provide for a prosecution where there is a failure to comply with the requirements of the issued notice, and;
- Section 108 describes the provisions for complaints regarding noise nuisance to be taken to the District Court by any person or agency. It allows for any person, local authority or the Agency to make a complaint to the District Court where noise levels are considered to be generating a reasonable cause for annoyance. Where the court finds in favour of a noise nuisance complaint, the person or body responsible for the noise must reduce it to a specific level, to limit it or cease it altogether.

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 such guidance in the future.

## ***IED/IPPC Licensing***

Certain activities that are required to be licensed under the IED/IPPC regulations 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 (NG4)*<sup>48</sup>. This document contains suggested general noise limits of 55 dB(A)  $L_{A,T}$  for daytime, 50 dB(A)  $L_{A,T}$  for evening, and 45dB(A)  $L_{Aeq,T}$  for night-time; with lower noise limit criteria suggested for areas of low background noise, and quiet areas.

## ***National Planning Guidance***

In general, there are no national mandatory noise limits in force in Ireland, and no obligatory sector-specific limits. Two notable exceptions are:

- those referenced in the Planning and Development Regulations 2008, S.I. No. 235/2008<sup>49</sup>, which specifies a 43 dB noise limit in relation to small scale energy production sources such as boilers, wind turbines, heat pumps and CHP plants, and
- by-laws issued in relation to busking.

Other than IED/IPPC facilities regulated by the EPA, most facilities are controlled by Local Authorities, through planning permission and permits. Where limits attached to such consents have been proven to be breached a Local Authority may use the Planning & Development Acts 2000-2020 and/or the EPA Act as described above.

## ***Sustainable Development in the Urban Environment***

The Department of the Environment, Heritage and Local Government (DoEHLG, now the DHLGH) has published the following documents relating to sustainable development in the urban environment :

- Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities),

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<sup>46</sup> Available at: <https://www.irishstatutebook.ie/eli/1992/act/7/enacted/en/html> [Accessed December 2023]

<sup>47</sup> Available at: <https://www.irishstatutebook.ie/eli/1994/si/179/made/en/print?q=Environmental+Protection+Agency+Act+noise> [Accessed December 2023]

<sup>48</sup> Available at: [https://www.epa.ie/publications/monitoring--assessment/noise/NG4-Guidance-Note-\(January-2016-Update\).pdf](https://www.epa.ie/publications/monitoring--assessment/noise/NG4-Guidance-Note-(January-2016-Update).pdf) [Accessed December 2023]

<sup>49</sup> Available at: <https://www.irishstatutebook.ie/eli/2008/si/235/made/en/pdf> [Accessed December 2023]

March 2018

- Sustainable Residential Development in Urban Areas: Guidelines for Planning Authorities, May 2009;
- Urban Design Manual: A best practice guide (A companion document to the Draft Planning Guidelines on Sustainable Residential Development in Urban Areas), 2009.
- The document dealing with Design Standards for New Apartments calls for *“attention at the design and construction stages to prevent undue noise transmission between units”*.

### **Wind Energy Planning Guidelines**

With specific regard to wind energy developments, the 2006 DEHLG<sup>50</sup> document suggests a “lower fixed limit of 45dB(A) or a maximum increase of 5dB(A) above background noise at nearby noise sensitive locations”. The latter requirement may be relaxed in areas with low background levels. A fixed limit of 43dB(A) at night-time is deemed appropriate as there is no requirement to protect external amenity. A draft revised version was published in 2019<sup>51</sup>, however a final version has not been published at the time of this guidance (January 2024).

### **Quarries and Ancillary Activities**

The Quarries & Ancillary Activities: Guidelines for Planning Authorities<sup>52</sup>, DoEHLG, 2004 publication contains a discussion of the primary sources of noise associated with quarrying and offers guidance in relation to the correct approach to be followed in respect of assessment and mitigation. Suggested noise limit values are 55 dB L<sub>Aeq,1hr</sub> and 45 dB L<sub>Aeq,15min</sub> for daytime and night-time respectively, although more onerous values may be appropriate in areas with low levels of pre-existing background noise. In respect of blasting, reference is made to EPA guidance to the effect that *“blasting should not give rise to air overpressure values at the nearest occupied dwelling in excess of 125 dB(Lin) max. peak with a 95% confidence limit”*.

### **Building Regulations**

The current Irish Building Regulations call for certain constructions to offer “reasonable resistance” to both airborne and impact sound. For buildings constructed in the vicinity of noise sources it would be appropriate for specific façade noise insulation values, based upon a target internal noise level, 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.

## **4.3 Regional and Local Policy**

In addition to EU Regulations, national legislation and policy, it will also be necessary to consider Regional and Local policies and strategies which relate to noise management or may affect local noise management.

### **Regional Spatial and Economic Strategy 2020-2032 (RSES)**

The RSES provides the roadmap for effective regional development, creating healthy places and promoting sustainable communities. The RSES provides a high-level development framework for the Northern and Western Region that supports the implementation of the National Planning Framework (NPF) and the relevant economic policies and objectives of Government. It provides a 12-year strategy to deliver the transformational change that is necessary to achieve the objectives and vision of the Regional Assembly including the delivery of safer quieter places to live and work.

### **County Donegal Development Plan 2024-2030**

The Donegal County Development Plan 2024-2030 inherently recognises the importance of addressing noise issues in a land use planning context across a wide range of development types. Specifically, the plan includes certain policy provisions which may act to either prevent possible future or reduce existing noise impacts on noise

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<sup>50</sup> Available at: <https://www.gov.ie/en/publication/f449e-wind-energy-development-guidelines-2006/> [Accessed December 2023]

<sup>51</sup> Available at: <https://assets.gov.ie/46097/6e68ea81b8084ac5b7f9343d04f0b0ef.pdf> [Accessed December 2023]

<sup>52</sup> Available at: <https://www.opr.ie/wp-content/uploads/2019/08/2004-Quarries-and-Ancillary-Activities.pdf> [Accessed December 2023]

sensitive receptors from major roads with more than 3 million vehicles per annum. In this regard existing noise impacts from such roads can be reduced through the provision of new transport schemes which remove traffic and associated noise impact from built up residential areas. Future noise impacts may be prevented by ensuring noise sensitive developments are located a suitable distance from major roads, implementing sustainable mobility policies which encourage modal shift and reduce traffic volumes and associated environmental noise, and controlling the proliferation of noise sensitive developments adjacent to existing roads.

The table below sets out the key policy provisions in the CDP 2024-2030 which may help to prevent and reduce noise impacts from major roads.

Policy Provision	Relevant Text
T-O-11	<ul style="list-style-type: none"> <li>To deliver improvements to the Trans European Transport Network (TEN-T), (as required by EU Regulation (EU) No.1 58315/2013 “Guidelines for the development of the Trans European Transport Network as part of the core and comprehensive transport network of Ireland. In this regard it is a specific objective of the Council to: <ul style="list-style-type: none"> <li>➤ Progress and ultimately carry out/implement the TEN-T Priority Route Improvement Project, Donegal</li> <li>➤ Progress and ultimately carry out/implement the N13 Bridgend to County Boundary Route Improvement TEN-T Priority Route Improvement Project</li> </ul> </li> <li>Note: The associated narrative for this objective notes the benefits of the TEN-T PRIPD including: ‘reducing noise levels near noise sensitive receptors’</li> </ul>
T-P-10	<p>a. It is a policy of the Council not to permit developments requiring new accesses, or which would result in the adverse intensification of existing access points onto:</p> <p>i. National Roads where the speed limit is greater than 60 kph;</p>
T-O-2	To secure the development of strategic, coherent and high-quality walking and cycling networks that are integrated with public transport and connected with cultural, recreational, commercial, educational and employment destinations ....
T-O-5	To retrospectively provide safe walking and cycling infrastructure, segregated from other traffic, in settlements and into settlements from suitable adjacent rural areas
T-O-6	<p>To support and facilitate:</p> <p>a. the provision of new, and the expansion of existing public transport services and supporting infrastructure; and</p> <p>b. the use of emerging renewable energy technologies for the transport fleet.</p>
T-O-7	<p>To secure the provision of a rail link between:</p> <p>a. Letterkenny and Derry; and</p> <p>b. Letterkenny and Sligo.</p>
T-P-13	It is a policy of the Council to require that all new development proposed adjacent to existing and planned National Roads is set back 50m from the outside edge of the running carriageway unless existing buildings have formed an established building line in which case the new buildings may follow the established building line.
RH-P-1	To consider proposals for new one-off rural housing within ‘Areas Under Strong Urban Influence’ from prospective applicants that have demonstrated a genuine rural need for a new dwelling house and who can provide evidence that they, or their parents or grandparents, have resided at some time within the area under strong urban influence in the vicinity of the application site for a period of at least 7 years.
Technical Standards	<p>Building Setback on Non-National Roads</p> <p>A minimum of 25m setback will be required from centreline of carriageway on Regional Roads.</p>

## **5. RESPONSIBLE AUTHORITY FOR ACTION PLANNING**

### **5.1 Name and Contact Details**

The Environmental Noise Regulations designated Action Planning Authority for Donegal for the making of strategic noise maps and noise action plan areas is Donegal County Council c/o :

Mr Bryan Cannon

Director of Service / Roads & Transportation Directorate

Donegal County Council

County House

Lifford

Co. Donegal

E-Mail: [noiseactionplan@donegalcoco.ie](mailto:noiseactionplan@donegalcoco.ie)

### **5.2 Other bodies of relevance**

Collaboration took place with external bodies which provided support to the Council in its journey to develop the Round 4 NAP.

The Environmental Protection Agency (EPA) is the national authority for the purpose of the regulations. The EPA exercised general supervision over the functions and actions of noise mapping bodies and action planning authorities, and provided guidance or advice, where necessary. The EPA published revised Version 3 of the guidance for strategic noise mapping for Round 4 using the CNOSSOS-EU assessment methods. It has been published in five parts:

- Part 1: Requirements
- Part 2: Calculation Methodology & Noise Modelling
- Part 3: Noise Exposure Assessment
- Part 4: Reporting
- Part 5: Harmful Effects Assessment

The EPA supervision of Round 4 strategic noise mapping has been carried out through collaboration, including regular bi-lateral meetings between ORM (Office of Radiation Protection and Environmental Monitoring), the EPA appointed noise contractor, and the different stakeholders involved in the noise mapping including; the NMBs, Road Management Office (RMO), National Transport Agency (NTA), County and City Management Agency, Airport Noise Competent Authority (ANCA) and DECC. These bilateral meetings with the stakeholders allowed EPA to gauge progress and provided advice around the noise modelling and mapping work. ORM also hosted quarterly meetings of a 'Noise Technical Working Group' that comprised the noise mapping bodies and the agglomeration local authorities.

For major national roads, the Transport Infrastructure Ireland (TII) is the noise mapping authority on behalf of the action planning authority concerned and Donegal County Council engaged with same regarding the provision of noise mapping to develop its NAP. The TII also produced the noise mapping on behalf of the Council with respect to non-national roads. The RMO provided support with GIS mapping and other information.

Major airports and major railways requirements are currently not applicable to Donegal.

### **5.3 Working groups/steering groups**

Donegal County Council is the Action Planning Authority for major roads in the local authority area and the development of the Noise Action Plan was tasked to the Roads & Transportation Directorate which had experience in developing previous Noise Action Plans, had GIS support for mapping results and analysis, and technical

capabilities to identify mitigation measures and knowledge of work programmes through which mitigation measures may be implemented as appropriate. The development of the NAP was undertaken through collaboration with other Council departments:

- Planning Directorate regarding policy and designated quiet areas
- Environment Directorate with knowledge of noise & complaints

#### **5.4 Review of previous Noise Action Plan (2018-2023)**

Under the Regulations, the Donegal Action Planning Authority has a designated responsibility to make, review and, where necessary, revise its action plans, in consultation with the EPA and relevant noise mapping bodies and in accordance with the current guidelines and support documentation / noise mapping. The review and revision to the Donegal NAP has been triggered in line with the timetable of the Regulations and Directive as it is five years since it was last reviewed.

The noise maps used to develop the Noise Action Plan are the product of assimilating a collection of digital datasets, and over the past 10 years, Tailte Eireann (Ordnance Survey Ireland), Transport Infrastructure Ireland (TII) & the LAs have invested heavily in significant improvements to the quality of the digital datasets describing the natural and built environment in Ireland. This has led to the strategic noise models being based on increasingly detailed and accurate data, which has in turn led to more reliable noise results with much less tendency to over predict the impact.

Over the life of the previous NAP, new works projects undertaken on National Routes were assessed for noise mitigation requirements and a section of road on the N56 Mountcharles Drumbeigh Project required action and so sound adsorbing barriers were erected at Milltown, along the route, which was opened in 2019. The N56 Coolboy Kilmacrennan, also opened in 2019, included noise mitigation measures.

Previously :

- Sound adsorbing barrier boards were installed at Ballyshannon north of Erne crossing, benefiting approximately 130 households, as part of the N15 Bundoran Ballyshannon Bypass opened in 2006.
- Noise Monitoring was carried out along the N56 Mountain top to Ellistrin however no locations requiring noise mitigation were identified. Phase 1 was opened in 2006 with phase 2 opened in 2008.

It is noted that many of the road construction projects undertaken in Donegal are located in rural areas (inter-urban routes) with limited adjacent settlements. Traffic calming measures have also been implemented at a number of urban settlements over the last 5 years slowing traffic and reducing noise associated with speed/breaking.

The Council continued to develop transport infrastructure projects over the life of the previous Noise Action Plan which will, subject to statutory processes and funding allocation, result in the future upgrade of sections of National Primary, National Secondary and Regional routes that will have a positive influence on the noise reduction / mitigation along said routes even though some of these areas may fall below the threshold and will contribute to a positive impact on noise mitigation / reduction in the associated adjacent urban settlements:

- N15 Corcam Bends
- N15 Ballybofey Stranorlar Pavement Project
- N13 Manorcunningham to Bridgend/Derry
- TEN-T Priority Route Improvement Project, Donegal (TEN-T PRIPD). The benefits of the TEN-T Priority Route Improvement Project, Donegal are significant and include environmental benefits reducing air pollution caused by congestive queuing and reducing noise levels near noise sensitive receptors and also quality of life benefits reducing journey times, reducing traffic and thus freeing up road space in our towns and villages for sustainable transport modes, providing new walking and cycling infrastructure as part of the scheme. This project consists of and prioritises 3 key sections of the TEN-T network in Donegal for improvement namely:

- Section 1 – N15/N13 Ballybofey/Stranorlar Urban Region
- Section 2 – N56/N13 Letterkenny to Manorcunningham
- Section 3 – N14 Manorcunningham to Lifford/Strabane/A5 Link
- N13 Bridgend to County Boundary Route TEN-T Improvement Project. The village of Bridgend sits at the southern end of the Inishowen Peninsula in Co. Donegal on the most strategically important border crossing in the Northwest. The village is bisected by the N13 / A2 transboundary route. The strategic importance of the route is supported by the fact that the N13 transboundary route forms part of the EU TEN-T comprehensive network and is the primary link between Letterkenny and Derry City. The N13 currently experiences congestion, with high traffic volumes over 19,000 vehicles per day passing through the village and across the border. Bridgend is predominantly a car centric congested environment and this in turn contributes to a poor quality village centre. Environmentally, traffic congestion results in traffic noise and vibration levels along with poor air quality experienced by sensitive receptors and residents along the existing N13. This improvement will aim to minimise where possible the climate and environmental impact.
- N56 Inver Killybegs
- N56 Doonwell Drumbrick
- N56 Gortahork Falcarragh
- The key strategic non-national road route reservations in Letterkenny, the largest urban conglomeration in Donegal, and as listed below and included in the Letterkenny Town Plan, will provide, subject to statutory processes and funding allocation, significant opportunities to redirect “bypassing / commuter” traffic away from the urban core and built up / residential areas due to reducing traffic volumes and associated noise impacts and enhanced environmental setting presenting additional opportunities for the introduction of active travel infrastructure, civil space and open space:
  - Letterkenny Southern Network Project
  - Northern Network Project
  - Western Relief Road
- Other Regional Road Infrastructure Projects currently under consideration include :
  - R263 Fintra Bridge and Road Realignment (outside Killybegs in the southwest)
  - R238 Buncrana Inner Relief Road and Active Travel Infrastructure Project
- Active Travel Projects in both large and smaller urban settlements have been developed and delivered over the life of the previous NAP through the NTA Active Travel Programme with Donegal securing circa €12M in design and construction costs in the last 3 year period and providing opportunities for car users to move to alternative modes of transport for short journeys.
- In the last 5 year period a number of Greenway projects have been delivered, notably at Muff (R238) and Lifford (N15/N14) to the sum of circa €18M, providing opportunities for car users to move to alternative modes of transport (bike/foot) for short journeys.



**New Greenway near the R238**



**New Greenway along the N15 Castlefin**

## **6 DESCRIPTION OF THE ACTION PLANNING AREA**

### **6.1 Extent of the area**

County Donegal is located in the northwest of Ireland. It is part of the Border Region and is also located in the province of Ulster. Donegal County Council is the Local Authority for the county. The population of the county is 167,084 according to the 2022 census. Donegal has borders with Leitrim and with the counties of Derry, Tyrone and Fermanagh in Northern Ireland. It is the largest county in Ulster and the fourth largest county in the Republic of Ireland with an area of 4,841 square kilometers which represents roughly 8.5% of the state's landmass.

### **6.2 Topography / geographical location**

Donegal is a predominantly coastal county and it is bounded by the Atlantic from Donegal Bay in the southwest to Lough Foyle in the northeast. It has a deeply indented coastline forming natural sea loughs, of which both Lough Swilly and Lough Foyle are the most notable. The county is the most mountainous in Ulster consisting chiefly of two ranges of low mountains with the Derryveagh Mountains in the north and the Bluestack Mountains in the south and Mount Errigal at 749 metres (2,457 ft) the highest peak. The Slieve League cliffs are the sixth-highest sea cliffs in Europe, while Malin Head is the most northerly point on the island of Ireland. Ireland's second longest river, the Erne, enters Donegal Bay near the town of Ballyshannon. The River Erne, along with other Donegal waterways, has been dammed to produce hydroelectric power. The River Foyle separates part of County Donegal from parts of both counties Derry and Tyrone. Two permanently inhabited islands, Arranmore and Tory Island, lie off the coast, along with a large number of islands with only transient inhabitants. The climate is temperate and dominated by the Gulf Stream, with warm, damp summers and mild wet winters.

### **6.3 General population**

In 1841 Donegal had a population of 296,448 and in 1971 the population of Donegal had dropped to 108,344 which is a 63% decline in the population for the period 1841 to 1971. The first increase in the population of County Donegal was between 1971 and 1979 where an increase of 12% was recorded. In more recent times the population of Donegal was recorded at 159,192 in the 2016, a decrease of 1.2% when compared to 2011. The 2022 census shows Donegal population at 167,084, an increase of 5% compared to 2016.

### **6.4 Location of noise sensitive groups**

- Donegal has 180 primary schools and 27 post primary schools spread across both urban and rural areas of the county.
- There are community centres at the heart of every town and village within Donegal, providing a wide variety of services and supports.
- There are 34 health centres in the county, 8 community hospitals located in the towns of Ballyshannon, Carndonagh, Donegal Town, Dungloe, Falcarragh, Killybegs, Lifford and Stranorlar and a further 3 community nursing units / homes for additional support to the elderly located at Ballyshannon, Buncrana and Ramelton.
- The largest agglomeration in the county is the town of Letterkenny with a population of 22,549 followed by Buncrana with a population of 6,971. (CSO 2022 Census)

### **6.5 Main infrastructure/services**

There is an airport at Carrickfinn but no national rail route within the county. Donegal is served by 320km of national roads (N3, N13, N14, N15 and N56) and 785km of regional road network, with 5,330km of local roads. Both Letterkenny General Hospital and the Atlantic Technological University are located in Letterkenny.

## **7. EXISTING NOISE MANAGEMENT FRAMEWORK**

In Donegal, strategic noise maps and associated action plans must be prepared for major roads only. The definition of a major road for the fourth Noise Action Plan is a road with more than 3 million vehicles per annum. The Noise Action Plan requirements for major railways, major airports or agglomerations of greater than 100,000 do not apply to Donegal.

### **7.1 Roads**

County Donegal is predominantly rural in nature with a sporadic spread of settlements. As per specified for the third phase of implementation of the regulations, the traffic count data indicated that traffic flows along the N13, N14 and N15, on a section of the N56 and on certain sections of some Regional Routes were above the 3 million vehicles per annum threshold for the requirement of a Noise Action Plan.

### **7.2 Railways**

There is no national rail network located in Donegal.

### **7.3 Licensed industrial facilities**

Not applicable to Donegal

### **7.4 Airports**

The number of movements per year at Donegal Airport is lower than the threshold required for Action Planning.

## 8. SUMMARY OF THE RESULTS OF THE NOISE MAPPING

### 8.1 Overview of the preparation of the noise map

It was recommended that each APA undertake a review of its draft noise action plan against the guidelines checklist prior to public consultation, and again prior to publication, to ensure that all relevant aspects are included within the NAP. 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 (TII), including identification of noise mitigation measures and implementation of those measures within their areas of competence and responsibility, subject to resources and budget.

For the NAP process, the Regulations require each action plan or revision of an action plan to 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 EPA in accordance with subparagraph (3), and
- (ii) shall, in the first instance, address the most important area or areas, as the case may be, established by strategic noise mapping.

#### Stage 1

NAPs 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 and 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 locations 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;
3. **Priority Important Areas (PIAs)** – between 5 and 10 Most Important Areas or group of similarly affected Most Important Areas, identified, through a prioritisation process, as those which will be evaluated and addressed during the implementation of the NAP.

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

### 8.2 Presentation of results

As a standardised approach to the description of long term environment noise, the Directive specifies the use of two noise level indicators when preparing environment noise maps and action plans, these two indicators are  $L_{den}$  and  $L_{night}$ .

- $L_{den}$  is the noise rating indicator, rather than a sound level, and is based upon the day, evening and night time noise levels with weightings applied for the different periods where  $L_{den}$ : The day, evening, night level.  $L_{den}$  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 night 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 IAs where long term noise 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.

<b>Number of people (in Donegal) in dwellings exposed to Level above guideline level</b>		
	Road Traffic - 53 dB L(den)	Road Traffic - 45 dB L(night)
Important Areas – no of people in dwellings	14,791	13,881
Important Areas – no of school buildings/ hospital buildings	14 / 1	14 / 4

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 exposures greater than the Important Area guideline noise levels. An indicative list of Priority Important Areas (PIAs) was provided to the Council based on the statistical results. The noise levels reflect an annual average 24-hour period. This completes Stage 1 of the assessment.

### **8.3 Noise contour maps for action planning area**

The delineated digital polygons associated with the respective HA Threshold for the Most Important Areas, and potential Priority Important Areas discussed 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.

## 9. IDENTIFICATION OF AREAS TO BE SUBJECTED TO NOISE MANAGEMENT ACTIVITIES

### 9.1 Identification of IAs, MIAs and PIAs

The IAs, MIAs and PIAs identified in Donegal are done so with respect to noise from roads. There are no areas identified to be the subject of noise management activities due to noise from rail, airports or industrial activities.

The WHO 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 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 due to road traffic noise
- High annoyance due to road, railway and aircraft noise
- High sleep disturbance due to road, railway and aircraft noise

In the context of the END, the EU Zero Pollution Action Plan and the National Planning Policy Object 65 aim 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 which 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 GeoDirectory 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, the number of people highly sleep disturbed, and the number of cases of ischaemic heart disease 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 100m<sup>2</sup> raster cells.

The following table summaries the datasets for MIAs in Donegal :

<b>Most Important Areas (MIAs) Summary</b>					
	No. of MIA	No. of People in MIA			
EPA Guidance density criterions / HA Threshold of	All sources	Total Population	HA	HSD	IHD
7.5 people per 100m <sup>2</sup>	19	981	206	66	0
10 people per 100m <sup>2</sup>	8	384	91	30	0
15 or more people per 100m <sup>2</sup>	0	0	0	0	0

Where : HA – Highly Annoyed, HSD – Highly Sleep Disturbed, IHD – Ischaemic Heart Disease

#### Most Important Areas list for Donegal

NAME	ID (Ref)	Street Name / Address	THRESHOLD People HA / 100 m <sup>2</sup>	Total Population in PIA
DLC_MIA_10_HA	1	Cannon Court, Mountcharles	10	16.48
DLC_MIA_10_HA	2	Na Hinsean, Manorcunningham	10	9.83
DLC_MIA_10_HA	3	Junction of Pearse Road and Justice Walsh Rd, Letterkenny	10	46.48
DLC_MIA_10_HA	4	Grand Central Apartments, Canal Road, Letterkenny	10	65.34
DLC_MIA_10_HA	5	N15, Ballybofey	10	33.98
DLC_MIA_10_HA	6	Colehill Park, Newtowncunningham	10	54.76
DLC_MIA_10_HA	7	Slate Row, Letterkenny	10	52.33
DLC_MIA_10_HA	8	Abbey Park / Abbey Villas / Greenhills, Manorcunningham, N13	10	104.32
DLC_MIA_7.5_HA	9	Moness Cottages (along N13)	7.5	2.19
DLC_MIA_7.5_HA	10	Thornberry, Letterkenny	7.5	17.02
DLC_MIA_7.5_HA	12	R238 junction with Kilderry Lane, Muff	7.5	8.83
DLC_MIA_7.5_HA	13	Drumboe Avenue junction with the Main Street Stranorlar	7.5	13.31
DLC_MIA_7.5_HA	14	Trinity Court, L-2061, Newtowncunningham	7.5	69.07
DLC_MIA_7.5_HA	15	Junction of St Oliver Plunkett Rd and Pearse Road, Letterkenny	7.5	16.12
DLC_MIA_7.5_HA	16	Ballyrairie Park Letterkenny	7.5	47.54
DLC_MIA_7.5_HA	17	The Commons, N14, Lifford	7.5	17.68
DLC_MIA_7.5_HA	18	West of the Pearse Road, Letterkenny	7.5	82.75
DLC_MIA_7.5_HA	19	Glen Patrick, Ballybofey	7.5	30.4
DLC_MIA_7.5_HA	20	Ross Avenue, Bundoran	7.5	22.75
DLC_MIA_7.5_HA	21	Cannon Court, Mountcharles	7.5	45.33
DLC_MIA_7.5_HA	22	Grand Central Apartments, Canal Road, Letterkenny	7.5	65.34
DLC_MIA_7.5_HA	23	Junction of Pearse Road and Justice Walsh Rd, Letterkenny	7.5	54.93
DLC_MIA_7.5_HA	24	Na Hinsean, Manorcunningham	7.5	54.04
DLC_MIA_7.5_HA	25	N15 southwest of junction with R252, Ballybofey	7.5	47.73
DLC_MIA_7.5_HA	26	Slate Row, Letterkenny	7.5	73.59

NAME	ID (Ref)	Street Name / Address	THRESHOLD People HA / 100 m <sup>2</sup>	Total Population in PIA
DLC_MIA_7.5_HA	27	Colehill Park, Newtowncunningham	7.5	116.99
DLC_MIA_7.5_HA	28	Abbey Park, Manorcunningham	7.5	194.91

### **Identifying Priority Important Areas (PIAs)**

When considering the selection of PIAs to address under the action plan, the NAP Guidelines recommend that the APA (Donegal 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 adjacent MIAs into a 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

While 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 aims 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 decisions on the selection of Priority Important Areas, consistent with the requirements of the EPA NAP Guidance, associated statistical information has been developed for each Most Important Area. The list of Priority Important Areas is summarised below and is based upon those Most Important Areas with the highest total population within the Most Important Areas that have been generated using the EPA Guidance density criterion ('HA Threshold') 15 or more people per 100m<sup>2</sup>.

Where required, this is extended down to the 10 and/or 7.5 HA Threshold density criterion. In Donegal all related noise is sourced from the road network, there are no MIAs with a HA Threshold of 15/100 m<sup>2</sup> and there are no requirements in relation to air/rail. In summary, the 10 PIAs to be investigated under the NAP 2024-2028 are located at Letterkenny, Manorcunningham, Newtowncunningham, Ballybofey and Mountcharles.

NAME	PIA-ID (Ref)	MIA-ID (Ref)	Street Name / Address	THRESHOLD People HA per 100 m <sup>2</sup>
DLC_MIA_10_HA	DLC-1	8 & 28	Abbey Park / Abbey Villas / Greenhills, Manorcunningham, N13	10 & 7.5
DLC_MIA_10_HA	DLC-2	4	Grand Central Apartments, Canal Road, Letterkenny	10
DLC_MIA_10_HA	DLC-3	6	Colehill Park, Newtowncunningham	10
DLC_MIA_10_HA	DLC-4	7 & 26	Slate Row, Letterkenny	10 & 7.5

NAME	PIA-ID (Ref)	MIA-ID (Ref)	Street Name / Address	THRESHOLD People HA per 100 m <sup>2</sup>
DLC_MIA_10_HA	DLC-5	3	Junction of Pearse Road and Justice Walsh Rd, Letterkenny	10
DLC_MIA_10_HA	DLC-6	5 & 25	N15 southwest of junction with R252, Ballybofey	10 & 7.5
DLC_MIA_10_HA	DLC-7	1 & 21	Cannon Court, Mountcharles	10 & 7.5
DLC_MIA_10_HA	DLC-8	2 & 24	Na Hinsean, Manorcunningham	10 & 7.5
DLC_MIA_7.5_HA	DLC-9	27	Colehill Park, Newtowncunningham	7.5
DLC_MIA_7.5_HA	DLC-10	23	Junction of Pearse Road and Justice Walsh Rd, Letterkenny	7.5

Priority Important Areas (PIAs) Summary								
PIA Reference	Total Population in PIA	MIA Criterion (people HA/100 m <sup>2</sup> )	Area (m <sup>2</sup> )	Number of People			Number of People above IA Guideline Level	
				HA	HSD	IHD	53 dB L(den)	45 dB L(night)
DLC-1	299.23	10	16,200	61.61	19.78	0.07	299.23	299.23
DLC-2	65.34	10	3,200	13.32	3.81	0.01	65.34	65.34
DLC-3	54.76	10	6,700	9.99	3.21	0.01	54.76	54.76
DLC-4	125.92	10	8,100	41.76	13.94	0.05	125.92	125.92
DLC-5	46.48	10	3,100	10.24	3.05	0.01	45.02	45.02
DLC-6	81.71	10	4,500	27.02	9.3	0.03	81.71	81.71
DLC-7	61.81	10	1,300	15.21	5.07	0.01	61.81	61.81
DLC-8	63.87	10	2,800	16.9	5.59	0.02	63.87	63.87
DLC-9	82.75	7.5	3,800	7.76	2.31	0.01	43.34	43.34
DLC-10	69.07	7.5	2,700	8.83	2.63	0.01	69.07	69.07

Where : HA – Highly Annoyed, HSD – Highly Sleep Disturbed, IHD – Ischaemic Heart Disease

Progress on activities associated with noise mitigation measures for PIAs within the noise action plan will be tracked through the annual progress report to be submitted to the EPA on actions taken under each action plan, as required under the Regulations.

## 9.2 Identification of Quiet Areas

Under the Regulations APAs may delimit quiet areas within agglomerations. As there are no qualifying agglomerations within County Donegal 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.

## **10. MITIGATION AND PROTECTION MEASURES**

### **10.1 Investigation of PIAs**

Following the identification of PIAs, the second stage of the overall process is undertaken during implementation of the NAP. There are several approaches that can be taken to reduce noise from major roads for existing dwellings:

- Relocating major roads from high density residential settlement through the provision of new road schemes is the most effective method of minimising the numbers of dwellings likely to be affected by the road noise. In this regard strategic road projects have the potential to segregate and remove large volumes of traffic (and associated environmental noise impacts) from built up residential areas. In doing so such projects also help to free up road space for active travel and public transport modes in these urban areas thus offering the potential to further reduce traffic related environmental noise.
- The provision/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, decrease car dependency, and thus can reduce traffic volumes and associated environmental noise on major roads leading to urban areas.
- Traffic calming measures can be employed where the major road passes through a built-up area.
- Reduction in speed limits where appropriate and in accordance with the 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; the road surface must be regularly cleaned 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 50kph speed restriction zones.

For each of the Priority Important Areas, an assessment of cost-effective noise mitigation measures is undertaken during implementation of the NAP. The guidelines recommend that this assessment includes:

- noise monitoring,
- noise modelling calculations,
- cost-benefit analysis

### **10.2 Investigation of candidate Quiet Areas**

As there are no qualifying agglomerations within County Donegal 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. There are currently no quiet areas identified in the County Development Plan.

Over the next 4 years, Donegal County Council will

- Identify areas for consideration as Quiet Areas by cross referencing the areas of the noise maps below 55db Lday with a dataset of public open spaces to produce a list of potential quiet areas.
- Assess suitability of same for designation
- Undertake a public consultation process with respect to proposals prior to submission to the Minister for adoption.

### **10.3 Management of Noise Impact on Future developments within the Action Planning Area**

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

- Locating zonings 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, commercial etc) in the vicinity of major roads.
- Acoustical planning measures in development layouts including locating access roads, green areas and planting/landscaping between residential developments and major roads.
- Managing the quantum of rural housing in the vicinity of major strategic roads.
- Facilitating active travel and public transport infrastructure 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 façades of new dwellings.

#### **10.4 Confirmation of extent of noise exposure levels**

##### ***Ambient noise monitoring***

It is proposed that for each Priority Important Area, ambient noise monitoring is undertaken at an appropriate number of locations, based on the size of the Priority Important Area, and the noise source(s). The measurements will be used to confirm that the noise exposure correlates with that assessed by the strategic noise maps and help validate the calculation model baseline scenario for the assessment of mitigation measures. Noise monitoring, if required, will be :

- Undertaken in line with ISO 1996:2017 Acoustics – Description, measurement and assessment of environmental noise;
- For at least two weeks at each location;
- Accompanied by meteorological measurements;
- Measured at a height of 4.0m above local ground, to replicate the assessment height of the strategic noise mapping used for first floor level of residential dwellings.

##### ***Review strategic noise model***

It is proposed that the noise models for the PIAs and the surrounding area be reviewed and refined, based upon information captured through field survey work, with particular attention being paid to aspects such as:

- Road surface type;
- Traffic speed;
- Traffic volume and compositions;
- Location and height of any noise barriers; and
- Any other noise mitigation measures present on site.

Where any differences are found between the strategic noise models and the situation identified through the field surveys, it is proposed that the noise models be updated in the vicinity of the Priority Important Area to more closely align with the real-world situation. The updated model shall then be used for the assessment of mitigation measures.

#### **10.5 Review Possible Mitigation Measures for PIAs**

Once the extent of the existing noise exposure levels have been confirmed for a PIA, the potential noise mitigations measures may be investigated, and a cost benefit analysis undertaken for each, with the aim of developing a selection matrix which leads towards a recommendation for action. There are a range of actions which may be feasible, some may need to be implemented on or directly alongside the sources, others may be in the region between the roads and the dwellings, and others may be at the noise sensitive locations.

The following are an indication of the types of measures which may be relevant to consider for noise sensitive locations exposed to noise from road sources:

- Earthworks, such as earth bunds, mounds or cuttings;
- Coverage, including baffles or tunnels;
- Acoustic windows or secondary glazing;
- Acoustics ventilation, passive or active; and
- Chimney caps and dampers.

The following additional types of measures may be relevant to consider 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 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; or
- 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 noise road surfaces;
- Speed restriction 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 Area 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.

## **10.6 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 PIA is drawn up. The next step is to undertake an assessment of the potential 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, and Predictor outside the agglomerations.

After the strategic noise maps have been reviewed by the APAs 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/mitigation measures
3. Forecast year (typically 15 years from opening) – without scheme (do-minimum)
4. Forecast year (typically 15 years from opening) – with scheme/mitigation measures

The strategic noise models would need to be amended to take into account 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 scenario, the four sets of noise level calculations above are required for the same area. It is recommended that the assessment area includes all noise sensitive premises within the PIA, and all other noise sensitive premises within 600m of the proposed noise mitigation measures.

## 11. IMPLEMENTATION PLAN

### 11.1 Roles and Responsibilities

Under the Environmental Noise Regulations :

- Transport Infrastructure Ireland (TII) is the noise mapping body for major national roads in Donegal on behalf of Donegal County Council.
- Donegal County Council is the noise mapping body for major non-national roads in the county with responsibility for identifying major non-national roads that fall under the threshold of implementation of the regulations (i.e. more than 3 million vehicles per annum) and ensuring that noise mapping is carried out for these roads.
- Donegal County Council is the Action Planning Authority for all major roads in Donegal and is responsible for the preparation of this Noise Action Plan and for meeting the stated objectives of the plan, including implementing measures to improve existing noise levels at a local level (if appropriate) and identifying and implementing measures for the protection of the future environment from road noise.
- There is no rail network in Donegal and volumes of air traffic in the county are below the threshold for noise mapping and so the regulations do not apply to these areas.

Donegal County Council's Roads & Transportation Directorate will lead out on the implementation of the Noise Action Plan 2024-2028 with support from the Planning Authority and the Environment Department. A Noise Action Plan working group will be established to review progress and the delivery of the targets and objectives.

### 11.2 Targets and Objectives

#### ***Promoting Active Travel and Public Transport and Reducing Transport Demand***

The following objectives, policies and provisions of the CDP 2024-2030 and the Letterkenny Plan and Local Transport Plan 2023-2029 will be implemented to increase active and sustainable transport usage, decrease car dependency, and travel demand and thus reduce traffic volumes and associated environmental noise on major roads.

- T-O-2: To secure the development of strategic, coherent and high-quality walking and cycling networks that are integrated with public transport and connected with cultural, recreational, commercial, educational and employment destinations.
- T-O-3: To protect and acquire the lands necessary for sustainable transportation improvement projects.
- T-O-4: To provide for safer routes to schools within the County and promote walking and cycling as safe and suitable modes of transport.
- T-O-5: To retrospectively provide safe walking and cycling infrastructure, segregated from other traffic, in settlements and into settlements from suitable adjacent rural areas.
- T-P-3: To consider all developments against the general objectives of providing safe and effective active travel linkages and public transport facilities and to require the provision of such facilities. In this regard, it shall be the policy of the Planning Authority to require that the design and layout of multiple residential, community, large scale industrial and commercial developments incorporate distinct and effective provisions for pedestrian and vehicular traffic movements.
- T-O-6: To support and facilitate:
  - the provision of new, and the expansion of existing public transport services and supporting infrastructure; and
  - the use of emerging renewable energy technologies for the transport fleet.
- T-O-7: To secure the provision of a rail link between
  - Letterkenny and Derry; and
  - Letterkenny and Sligo.

- T-O-8: To develop a centrally-located transport hub in Letterkenny and to seek to develop a dedicated bus corridor between the hub and the eastern edge of the town.
- T-P-17: To support the principle of the development of additional park and ride/share hubs in the commuter villages around Letterkenny including Kilmacrennan, Ramelton, Newtowncunningham, Manorcunningham, Ballinalackey (Raphoe Environs), Ballindrait, Lifford, Ballybofey/Stranorlar and Convoys.
- RH-P-1: To consider proposals for new one-off rural housing within 'Areas Under Strong Urban Influence' from prospective applicants that have demonstrated a genuine rural need for a new dwelling house and who can provide evidence that they, or their parents or grandparents, have resided at some time within the area under strong urban influence in the vicinity of the application site for a period of at least 7 years. Note: This policy will help to manage rural housing in the rural hinterland or larger urban areas and therefore reduce traffic volume on major roads.
- CCG-P-1: Support the provision of new social and community infrastructure/service-related developments at locations within the defined boundaries of settlement framework/urban areas which are within safe walking distance (i.e. via an existing or proposed footpath) of local services and residential areas or are accessible by public transport)
- Technical Standards: The implementation of cycle parking standards for residential, retail, offices, industrial, commercial, educational, tourism, hospitality, and community facilities.
- The implementation of compact Land Use Zoning Frameworks set out in the CDP 2024-2030 (including the Ballybofey-Stranorlar, Buncrana, and Bundoran Area Plans) and the Letterkenny Plan and Local Transport Plan 2023-2029.
- The implementation of the active travel, town centre transport, and public transport strategies set out in the Letterkenny Local Transport Plan 2023-2029 including inter alia:
  - LTP-AT-O-1: To provide for an increase in active travel through an expansion of parks, public realm and the strategic, inter-connecting and permeability walking and cycling networks in Letterkenny.
  - LTP-TC-O-1: To deliver a multi-functional, centrally located regional transport hub for Letterkenny.
  - LTP-TC-O-2: To create a dynamic connected and accessible town centre, anchored by a centrally located local transport hub, enabling transitional shift to public transport, walking and cycling.

### ***Segregating Existing and Future Development from Major Roads***

The following objectives, policies, zoning provisions and technical standards of the CDP 2024-2030 will be implemented to ensure an appropriate segregation between existing and future noise sensitive residential and community developments and major roads.

- T-O-11: To deliver improvements to the Trans European Transport Network (TEN-T) including: Progress and ultimately carry out/implement the TEN-T Priority Route Improvement Project, Donegal and the N13 Bridgend to County Boundary Route Improvement TEN-T Priority Route Improvement Project. Note: These projects will help to physically remove significant volumes of strategic traffic from noise sensitive residential areas in Ballybofey/Stranorlar, Letterkenny, Lifford and Bridgend. In addition, these schemes will also help to free up road space for active travel and public transport modes in these urban areas thus offering the potential to further reduce traffic related environmental noise.
- T-P-12: not to permit developments requiring new accesses, or which would result in the adverse intensification of existing access points onto: i. National Roads where the speed limit is greater than 60 kph; or ii. The section of the R238 Bridgend-Buncrana Regional Road where the speed limit is greater than 60 kph. Note: This policy will effectively control the quantum of new housing developments at highly noise sensitive locations adjoining National Roads.
- T-P-13: require that all new development proposed adjacent to existing and planned National Roads is set back 50m from the outside edge of the running carriageway unless existing buildings have formed an established building line.
- Technical Standards: A minimum of 25m setback will be required from centreline of carriageway on Regional Roads

- UB-P-7: It is a policy of the Council to require that proposals for new residential developments (2 or more units) in settlements demonstrate that the design process, layout, specification, and finish of the proposed development generally comply with all relevant Governmental Planning Guidelines/Standards.
- RH-P-1: (See Text above). Note: This policy will help to control the quantum of new rural housing in the hinterland of larger urban areas (e.g. Letterkenny, Ballybofey/Stranorlar, Buncrana, Donegal Town etc) and in so doing will help to reduce the number of noise sensitive residential dwellings within the vicinity of major roads that would otherwise occur.
- Implementing a sustainable land use zoning framework in urban areas (e.g. Buncrana, Ballybofey/Stranorlar, Bundoran) which focuses new residential development in more compact and infill locations physically removed from existing or future major roads.

### ***Improved traffic management and smoothing traffic flows***

To support the above active and sustainable travel related policies and objectives, the Council will continue to carry out traffic / transport related assessments for larger Towns to examine improved traffic management measures such as:

- Pedestrianisation
- Designation of cycle routes
- Use of one-way systems
- Modifications to junction types
- Promotion of modal shift to less noisy transport modes
- Influence driver behaviour through awareness campaigns
- Introduction of public bus transport in Letterkenny (with support of the NTA)

Where appropriate, new traffic calming areas may be designated and existing traffic calming measures will be optimised. Donegal County Council will consider improvement or changes to road surfaces during routine road maintenance, where necessary, by:

- Improving the quality of road surfaces by ongoing road maintenance programmes.
- Using low-noise road surfaces where appropriate.

Where relevant, Donegal County Council will investigate the feasibility of reducing speed limits in urban zones under the speed limit review process. For major national roads, this would be done in consultation with the TII.

Donegal County Council will ensure that the council-owned fleet is maintained to an adequate level to minimise unnecessary noise generation and the 2024 Decarbonisation Plan will be developed to include for consideration of options to facilitate the move to EVs, which will bring the added benefit of engine noise reduction compared to the diesel equivalent.

### ***Protection measures for future improvement***

Donegal County Council will seek to utilise the planning process as necessary:

- To incorporate the aims of the present and future noise action plans into the development plan and into relevant local area plans. Special consideration should be given to zoning objectives, and established settlements within the area.
- Where major development is proposed it may be necessary to accompany such proposals with evidence that the development shall not be exposed to harmful environmental noise that may arise from any major road that abuts the site. Evidence should include a sound impact assessment report that specifies appropriate mitigation measures which should be incorporated into the development proposal.
  - For new developments proposed within the current action planning area or
  - For developments proposed near major roads (i.e. traffic volumes in excess of 3 million vehicles per annum) or
  - On a case by case basis based on location to protected corridors within development plan, size, type of

development / noise sensitive

- Where major developments are planned adjacent to major roads, to incorporate acoustical planning into the development design e.g. designing the development so that the access road is adjacent to the major road noise source. It may also involve the use of buffer zones and/or noise barriers and traffic calming measures.
- To require that all future developments are designed and constructed so as to minimise noise disturbance.
- The ability to deliver the foregoing may be limited having regard to the existing provisions of the current Planning, Building and Fire Acts.
- Donegal County Council will consider requirements for provision of higher standard of façade and window insulation on the most exposed façades
  - for new local authority housing developments located beside major roads,
  - for new residential developments located beside major roads.

### 11.3 Programme of Works

Noise Action Plan has set out the context within which the PIAs have been identified and to then set out a range of mitigation measures at 10 selected locations which will be investigated and developed over the implementation period of the Plan.

With the list of potential mitigation measures in place, it is proposed to undertake a cost-benefit analysis in order to identify the most cost-effective approach. This process is undertaken in three stages:

1. Appraisal of monetised benefits to health;
2. Estimate of costs for implementing and maintaining noise mitigation works; and
3. Comparison of monetised health benefits against cost of mitigation.

It is recommended that the cost-benefit analysis addresses lifetime construction and maintenance costs against noise reduction benefit to health, and that assessment of noise benefits involves the use of the strategic noise models to undertake scenario testing to estimate the noise reduction from identified design options.

#### ***Appraisal of monetised benefits to health***

At present there is no recommended Irish methodology for the assessment of the monetised benefits to health of noise mitigation. For the interim until such a method is developed, it is recommended to use the UK environmental impact appraisal methodology within the English Department for Transport, *Transport Analysis Guidance* (TAG)<sup>53</sup>.

The noise workbook<sup>54</sup> enables the noise impact of a proposed scheme to be monetised to support a cost benefit assessment. The valuation of the change in noise level due to the proposed noise mitigation scheme considers the long-term effects on sleep disturbance, amenity (annoyance), AMI (acute myocardial infarction), stroke, and dementia during the daytime, and sleep disturbance at night. Further guidance as set out in the EPA NAP Guidelines and within the WebTAG workbook will be used to determine the cost benefits of proposed mitigation in the future and expresses them in 'real terms'.

The results of the appraisal set out the net present value for the change in noise level due to the mitigation scheme. These may then be compared to estimated costs for implementing the measures.

#### ***Estimate of costs for implementing and maintaining noise mitigation works***

The costs of the proposed measures will be completed and will include for maintenance works costs if above normal Council maintenance programme.

#### ***Comparison of monetised health benefits against cost of mitigation.***

A comparison will be undertaken for each option of associated monetised health benefits against cost of the works

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<sup>53</sup> Available at: <https://www.gov.uk/government/publications/tag-unit-a3-environmental-impact-appraisal> [Accessed December 2023]

<sup>54</sup> Available at: <https://www.gov.uk/government/publications/tag-environmental-impacts-worksheets> [Accessed December 2023]

to establish the cost benefit of each scheme to identify the most appropriate solution taking into consideration available funding.

### ***Timetable of actions***

The EPA guidelines recommend that the NAP contains an outline timetable of activities to be undertaken during the implementation of the NAP over the next 4 years which should include as a minimum: assessment of possible noise mitigation measures for the PIAs; delimiting quiet areas, where applicable; monitoring and annual reporting of progress to the EPA; collecting and collating data ahead of the next round of noise mapping; and review of the NAP ahead of making or revising the NAP for the next round.

It is proposed that the most cost-effective noise mitigation measures, or combination of measures, be reviewed with the relevant departments, agencies and budget holders to be incorporated within their future work plans. Even if the cost-benefit ratio is not less than 1.0 the overall health benefit of the noise reduction may be considered for implementation.

Where funding is available and approved, the recommended noise mitigation measures may be implemented. Once the mitigation measures have been implemented, post-completion noise measurement surveys will be conducted to confirm the predicted noise reduction.

- Year One (2024):
  - Establish the NAP Working Group
  - Donegal County Council will initiate a verification process by carrying out on-site noise measurements to confirm the models measurement of noise exposure at the 10 identified PIAs (by noise consultant).
  - Commence process of identification of Quiet Areas
  - Submit Annual EPA report
- Year Two (2025):
  - Ongoing NAP Working Group meetings
  - Assess suitability of areas for consideration as Quiet Areas
  - Identify mitigation measure options for each PIA
  - Assess possible noise mitigation measures for the PIAs.
  - Submit Annual EPA report
- Year Three (2026):
  - Ongoing NAP Working Group meetings
  - Complete the cost benefit analysis for the 10 PIAs
  - Identify work packages / programmes under which solutions can be delivered and funded
  - Complete Appropriate Assessment (AA) screening and Environmental Impact Assessment Pre-screening for each work package identified.
  - Implement PIA mitigation works
  - Submit Annual EPA report
- Year Four (2027):
  - Ongoing NAP Working Group meetings
  - Collecting and collating data ahead of the next round of noise mapping
  - review of the NAP ahead of making or revising the NAP for the next round.

## **11.4 Evaluation, Review and Corrective Action Programmes**

An annual interim summary report will be prepared which will:

- record progress as reviewed against the original planned programme of works

- highlight progress with respect to the development and assessment of suitable options for each PIA
- update on funding availability
- evaluate of the outputs of the measures taken including assessment of health effects<sup>55</sup>
- record any corrective actions / changes to the original programme be to undertaken as a result of the evaluation.
- identify any appropriate amendments required for the next Noise Action Plan

While Donegal County is the responsible body for the delivery of the Noise Action Plan, there are a number of risk factors associated with said delivery - some critical elements may be outside the control of Donegal County Council such as the approval of other statutory bodies or allocation of funding.

A review will evaluate the success of the 2024-2028 NAP through the assessment of the original proposals vs the works and actions completed during the period.

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<sup>55</sup> Regulation 9(2)

## 12. SUMMARY AND CONCLUSIONS

The Donegal Noise Action Plan (2024-2028) has been undertaken in consultation with the EPA and the noise mapping bodies. It follows the EPA guidance note for Noise Action Planning.

The EPA guidelines recommend that SEA pre-screening checks are carried out for the NAP. This process was undertaken by the Donegal County Council Planning Department and it was determined that no formal SEA 'screening' is required.

The EPA guidelines also recommended that appropriate assessment (AA) is undertaken. This is termed AA screening. Its purpose is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a Natura 2000 site in view of the site's conservation objectives. The need to apply the precautionary principle in making any key decisions in relation to the tests of AA has been confirmed by European Court of Justice case law. Therefore, where significant effects are likely, uncertain or unknown at screening stage, AA will be required. AA screening was also undertaken by the Council's Planning Department and it was determined that no AA will be required in relation to the NAP.

The approval of the draft Noise Action Plan (NAP) is considered as an Executive function of the Council. The development of the Donegal NAP has been undertaken in accordance with the timelines set out by the EPA with the 8-week public consultation process undertaken in Q2 2024. The draft NAP was presented to the relevant Special Policy Committee (SPC) in May 2024 as part of the consultation process and the complete plan can be brought to the full Council via the relevant SPCs for information purposes.

The Noise Action Plan has identified 10 Priority Important Areas for consideration over the next 4 year period :

Priority Important Areas (PIAs) Summary							
PIA	Total Population in PIA	Location	Number of People			Number of People above IA Guideline Level	
			HA	HSD	IHD	53 dB L(den)	45 dB L(night)
DLC-1	104.32	Abbey Park/Abbey Villas/Greenhills Manorcunningham, N13	22.41	7.25	0.03	104.32	104.32
DLC-2	65.34	Southwest of the Canal Road, Letterkenny	13.32	3.81	0.01	65.34	65.34
DLC-3	54.76	Colehill Park, Newtowncunningham	9.99	3.21	0.01	54.76	54.76
DLC-4	52.33	Slate Row, Letterkenny	17.47	5.85	0.02	52.33	52.33
DLC-5	46.48	Northwest of the Pearse Road, Letterkenny	10.24	3.05	0.01	45.02	45.02
DLC-6	33.98	N15, Ballybofey	12.07	4.17	0.01	33.98	33.98
DLC-7	16.48	Cannon Court, Mountcharles	3.93	1.32	0	16.48	16.48
DLC-8	9.8	Na Hinsean, Mannorcunningham	2.56	0.85	0	9.83	9.83
DLC-9	8275	Colehill Park, Newtowncunningham	7.76	2.31	0.01	43.34	43.34
DLC-10	69.07	Northwest of the Pearse Road, Letterkenny	8.83	2.63	0.01	69.07	69.07

The Council will develop mitigation and protection measures over the life of the plan at these 10 PIA locations and implement same where funding is available. A review will be undertaken to evaluate and measure the delivery of the NAP (2024-2028) in 2028 and before then next Plan is developed.

## APPENDIX A: GLOSSARY OF ACOUSTIC AND TECHNICAL TERMS

Term	Definition
Acoustical Planning:	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.
Agglomeration	Major Continuous Urban Area as set out within the Regulations - A dense urbanised area having a population of 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
CRN	The Calculation of Railway Noise 1995. The railway prediction methodology published by the UK Department of Transport.
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
Decibel / dB	A unit of measurement of sound.
Daytime:	Between the hours of 7am and 7pm
DB(Lin)max peak:	Instantaneous Maximum Peak sound pressure measured in decibels on a sound level meter, without the use of a frequency weighting system. Used to measure air overpressure levels from blasting.
DEM	Digital Elevation Model
DSM	Digital Surface Model
DTM	Digital Terrain Model
EC	European Commission
END	Environmental Noise Directive (2002/49/EC)
Environmental Noise :	Shall mean 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
EU	European Union
Evening time:	Between the hours of 7pm and 11pm
GIS	Geographic Information System
Hertz:	Unit of frequency of sound.
INM	Integrated Noise Model
IPPC Licence:	Integrated Pollution Prevention and Control Licence (obtained from EPA). Lden: (day-evening-night noise indicator) shall mean the noise indicator for overall annoyance. This comprises of adding the average value for the 12 hour day time 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

Term	Definition
L <sub>day</sub> :	(day-noise indicator) shall mean the noise indicator for annoyance during the day period. This is the average value in decibels for the daytime period
L <sub>evening</sub> :	(evening-noise indicator) shall mean the noise indicator for annoyance during the evening period. This is the average value in decibels for the evening time period.
L <sub>night</sub> :	(night-time noise indicator) shall mean the noise indicator for sleep disturbance. This is the average value in decibels for the nighttime period
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. Major Airport: A civil airport, which has more than 50,000 movements per year, excluding those movements purely for training purposes on light aircraft; in this context, a movement means a single take-off or landing of an aircraft.
Metadata	Descriptive information summarising data
NA	Not Applicable
Night time:	Between the hours of 11pm and 7am
Noise annoyance:	Noise annoyance is defined by the World Health Organisation (WHO) as 'a feeling of displeasure evoked by noise'. Ref UK DOT, Transport analysis guidance, Noise, TAG unit 3.3.2, November 2006.
Noise Bands	Areas lying between contours of the following levels(dB): $L_{den} < 55, 55 - 59, 60 - 64, 65 - 69, 70 - 74, > 74$ $L_d < 55, 55 - 59, 60 - 64, 65 - 69, 70 - 74, > 74$ $L_e < 55, 55 - 59, 60 - 64, 65 - 69, 70 - 74, > 74$ $L_n < 50, 50 - 54, 55 - 59, 60 - 64, 65 - 69, > 70$
Noise Levels	Free-field values of $L_{den}$ , $L_d$ , $L_e$ , $L_n$ , and $L_{A10,18h}$ at a height of 4m above local ground level
Noise Level - $L_d$ Daytime	$L_d$ (or $L_{day}$ ) = $L_{Aeq,12h}$ (07:00 to 19:00)
Noise Level - $L_e$ Evening	$L_e$ (or $L_{evening}$ ) = $L_{Aeq,4h}$ (19:00 to 23:00)
Noise Level - $L_n$ Night	$L_n$ (or $L_{night}$ ) = $L_{Aeq,8h}$ (23:00 to 07:00)
Noise Level - $L_{den}$ Day/Evening/Night	A combination of $L_d$ , $L_e$ and $L_n$ as follows: $L_{den} = 10 * \log \frac{1}{24} \{ 12 * 10^{(L_{day})/10} + 4 * 10^{(L_{evening}+5)/10} + 8 * 10^{(L_{night}+10)/10} \}$
Noise Level – $L_{A10,18h}$	$L_{A10,18h} = L_{A10,18h}$ (06:00 to 24:00)
Noise Level – $L_{Ar,T}$	$L_{Ar,T}$ = The equivalent continuous A- weighted sound pressure level during a specified time interval, T, plus specified adjustments for tonal character and impulsiveness of the sound.
Noise Level – $L_{eq,T}$	The equivalent steady sound level in dB containing the same acoustic energy as the actual fluctuating sound level over the given period, T.
Noise Level – $L_{Aeq,T}$	The A-weighted equivalent steady sound level in dB containing the same acoustic energy as the actual fluctuating sound level over the given period, T. It is used to describe many different types of noise and can be measured directly with an integrating sound level meter.

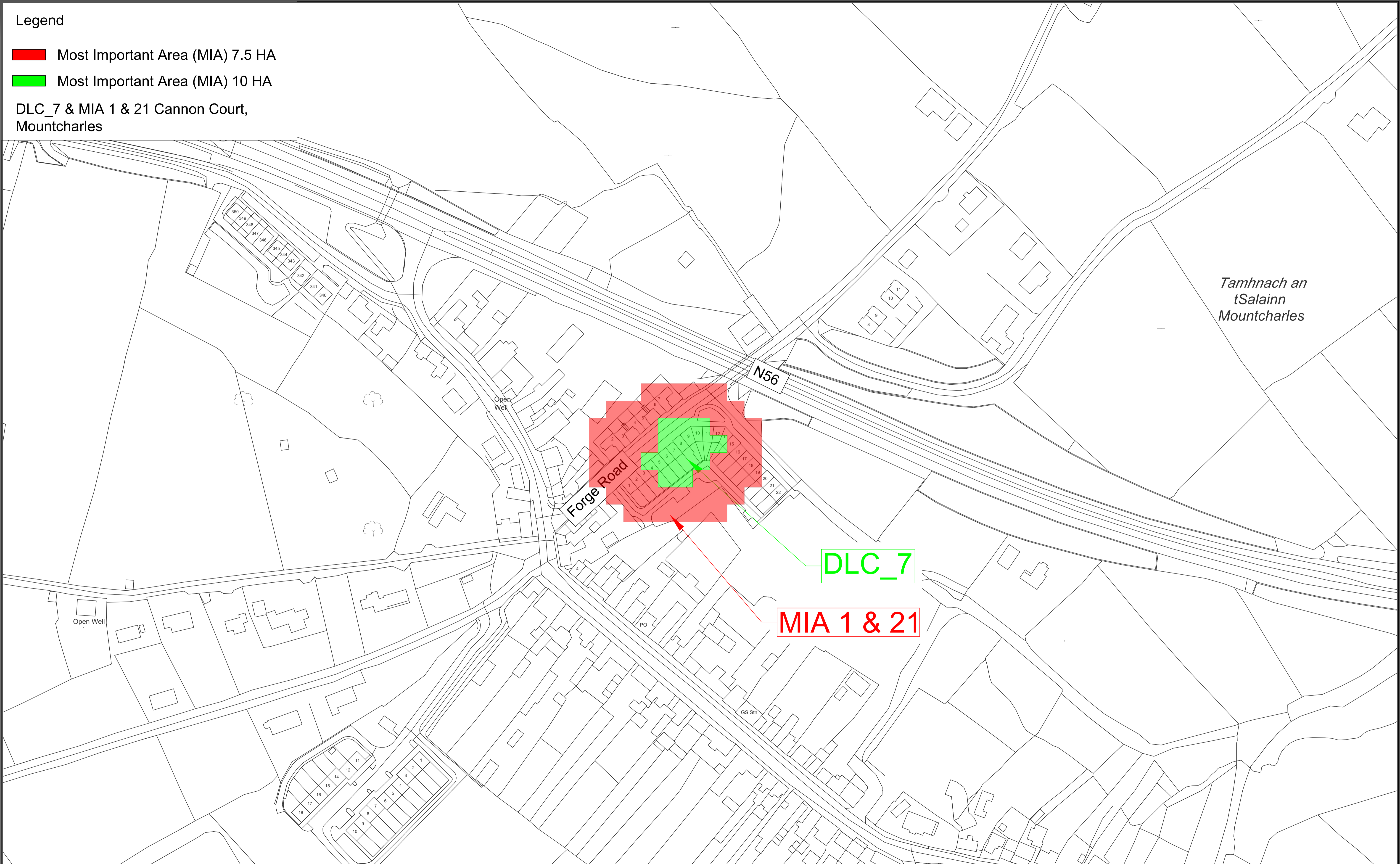
Term	Definition
Noise Mapping (Input) Data	Two broad categories: (1) Spatial (e.g. road centre lines, building outlines). (2) Attribute (e.g. vehicle flow, building height – assigned to specific spatial data)
Noise Mapping Software	Computer program that calculates required noise levels based on relevant 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
Peak Particle Velocity (ppv):	Peak particle velocity is a measure of vibration magnitude, which is the maximum rate of change of ground displacement with time, usually measured in mm/sec.
Processing Data	Any form of manipulation, correction, adjustment factoring, correcting, or other adjustment of data to make it fit for purpose. (Includes operations sometimes referred to as 'cleaning' of data)
QA	Quality Assurance
RMR	The railway noise calculation method published in the Netherlands in 'Reken- en Meetvoorschrift Railverkeerslawaaai '96, Ministerie Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer, 20 November 1996'.
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
XPS	The French road traffic noise calculation method published in 'NMPB-Routes-96 (SETRA-CERTULCPC- CSTB)', referred to in 'Arrêté du 5 mai 1995 relatif au bruit des infrastructures routières, Journal Officiel du 10 mai 1995, Article 6' and in the French standard 'XPS 31-133'.



Legend

- Most Important Area (MIA) 7.5 HA
- Most Important Area (MIA) 10 HA

DLC\_7 & MIA 1 & 21 Cannon Court,  
Mountcharles



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Donegal County Council  
Roads & Transportation Services  
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B. Cannon Director of Roads & Transportation



Rev	By	Date	Description

Purpose of Drawings			
<input checked="" type="checkbox"/> Information	<input type="checkbox"/> CPO	<input type="checkbox"/> Land Reg	
<input type="checkbox"/> Part 8	<input type="checkbox"/> Safety Design	<input type="checkbox"/> Construction	
<input type="checkbox"/> Tender Issue	<input type="checkbox"/> Acc Works	<input type="checkbox"/> Other	
Prepared: JMC	Date: March 2024		
Checked: ROS	Date: March 2024		
Approved: RH	Date: March 2024		

Horizontal Scales:	1:1000
Vertical Scale:	N/A
File no:	

Project:	Noise Action Areas
Location:	Donegal Municipal District
Dwg Title:	DLC_7 & MIA 1 & 21 Cannon Court, Mountcharles

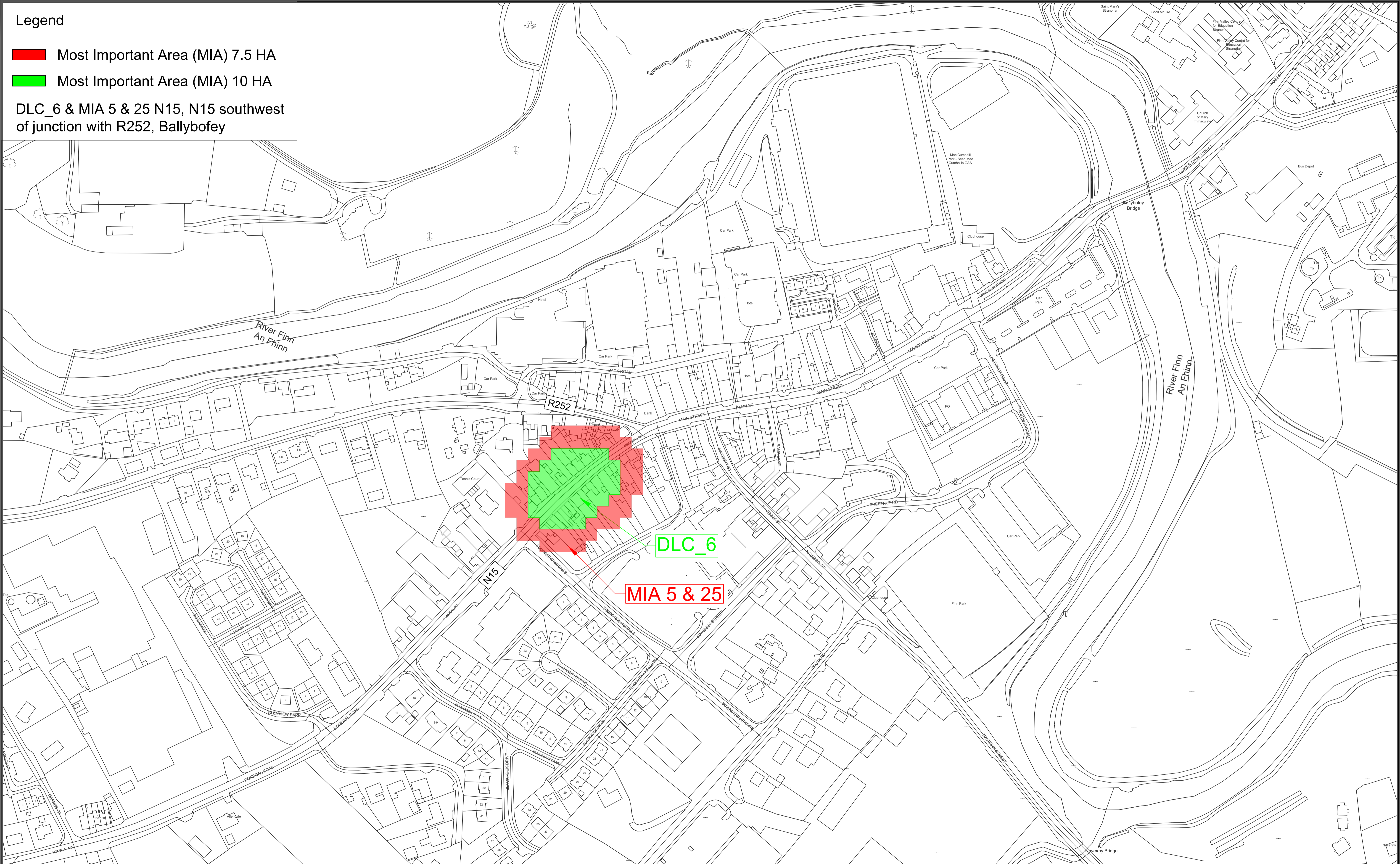
Rev:	- - -
Drawing no.:	001

Legend

Most Important Area (MIA) 7.5 HA

Most Important Area (MIA) 10 HA

DLC\_6 & MIA 5 & 25 N15, N15 southwest of junction with R252, Ballybofey



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Rev	By	Date	Description

Purpose of Drawings			
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<input type="checkbox"/> Part 8	<input type="checkbox"/> Safety Design	<input type="checkbox"/> Construction	
<input type="checkbox"/> Tender Issue	<input type="checkbox"/> Acc Works	<input type="checkbox"/> Other	
Prepared: JMC	Date: March 2024		
Checked: ROS	Date: March 2024		
Approved: RH	Date: March 2024		

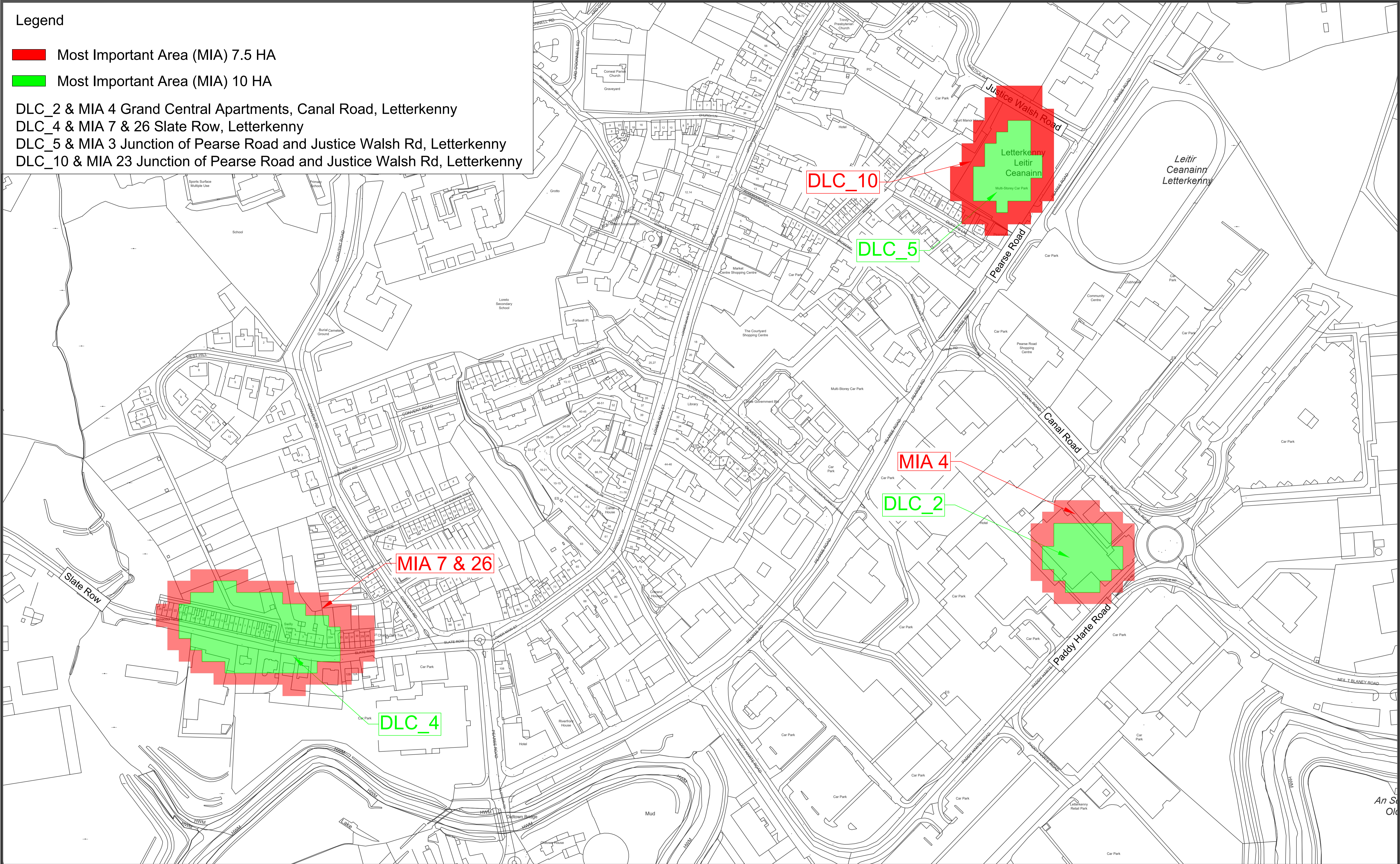
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Vertical Scale: N/A	Location: Stranorlar Municipal District
File no:	Dwg Title: DLC_6 & MIA 5 & 25 N15 southwest of junction with R252, Ballybofey

Rev: - - -
Drawing no.: 002

Legend

- Most Important Area (MIA) 7.5 HA
- Most Important Area (MIA) 10 HA

DLC\_2 & MIA 4 Grand Central Apartments, Canal Road, Letterkenny  
DLC\_4 & MIA 7 & 26 Slate Row, Letterkenny  
DLC\_5 & MIA 3 Junction of Pearse Road and Justice Walsh Rd, Letterkenny  
DLC\_10 & MIA 23 Junction of Pearse Road and Justice Walsh Rd, Letterkenny



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Rev	By	Date	Description

Purpose of Drawings	
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<input type="checkbox"/> Part 8	<input type="checkbox"/> Safety Design
<input type="checkbox"/> Tender Issue	<input type="checkbox"/> Acc Works
Prepared: JMC	Date: March 2024
Checked: ROS	Date: March 2024
Approved: RH	Date: March 2024

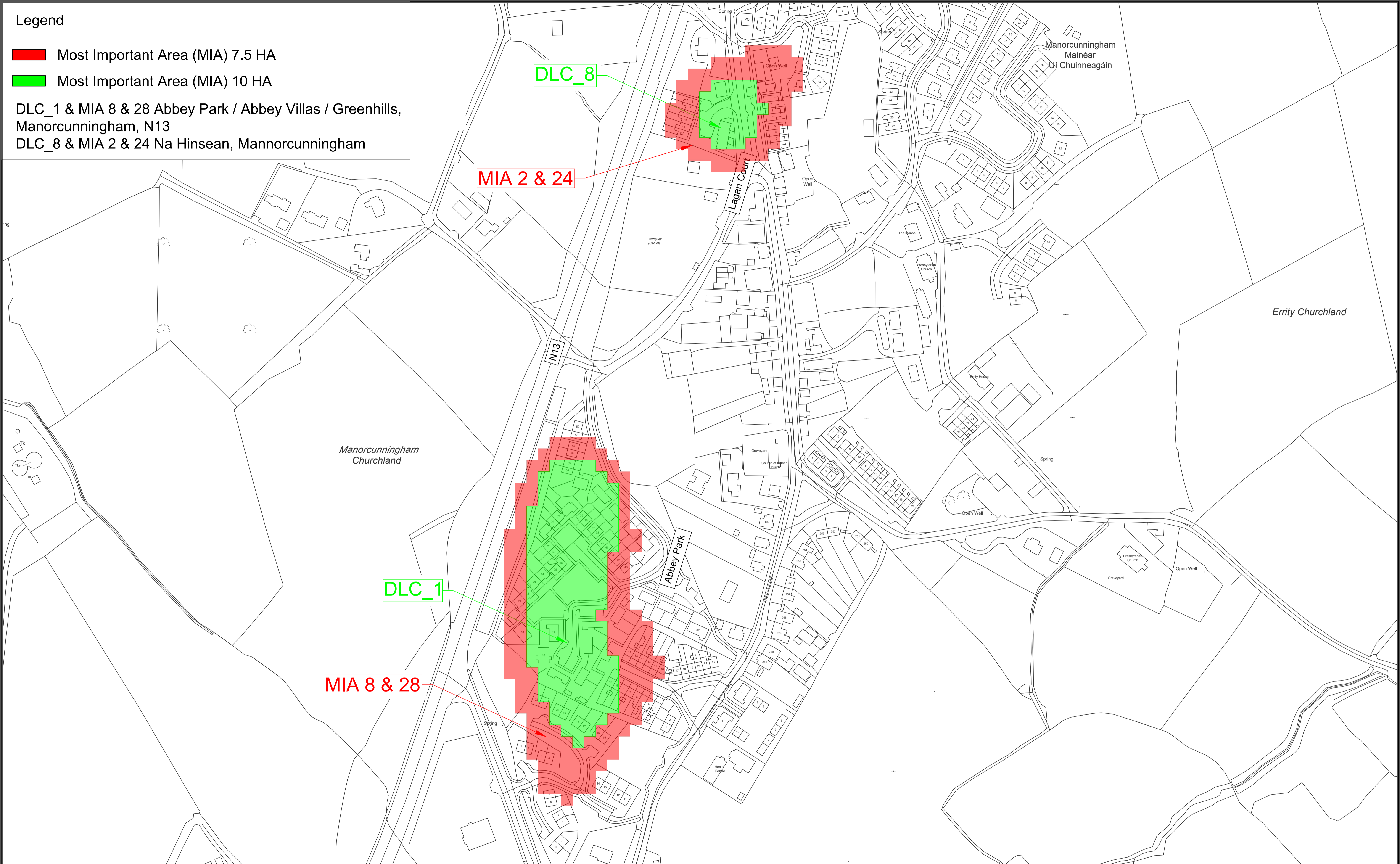
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Vertical Scale: N/A
File no:

Project: Noise Action Areas
Location: Letterkenny Municipal District
Dwg Title: DLC_2 & MIA 4, DLC_4 & MIA 7 & 26, DLC_5 & MIA 3 & DLC_10 & MIA 23 Letterkenny

Rev: - - -
Drawing no.: 003

- Legend
- Most Important Area (MIA) 7.5 HA
- Most Important Area (MIA) 10 HA

DLC\_1 & MIA 8 & 28 Abbey Park / Abbey Villas / Greenhills, Manorcunningham, N13  
DLC\_8 & MIA 2 & 24 Na Hinsean, Mannorcunningham



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Rev	By	Date	Description

Purpose of Drawings			
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<input type="checkbox"/> Part 8	<input type="checkbox"/> Safety Design	<input type="checkbox"/> Construction	
<input type="checkbox"/> Tender Issue	<input type="checkbox"/> Acc Works	<input type="checkbox"/> Other	
Prepared: JMC	Date: March 2024		
Checked: ROS	Date: March 2024		
Approved: RH	Date: March 2024		

Horizontal Scales: 1:1500	Project: Noise Action Areas
Vertical Scale: N/A	Location: Letterkenny Municipal District
File no:	Dwg Title: DLC_1 & MIA 8 & 28 & DLC_8 & MIA 2 & 24 Mannorcunningham

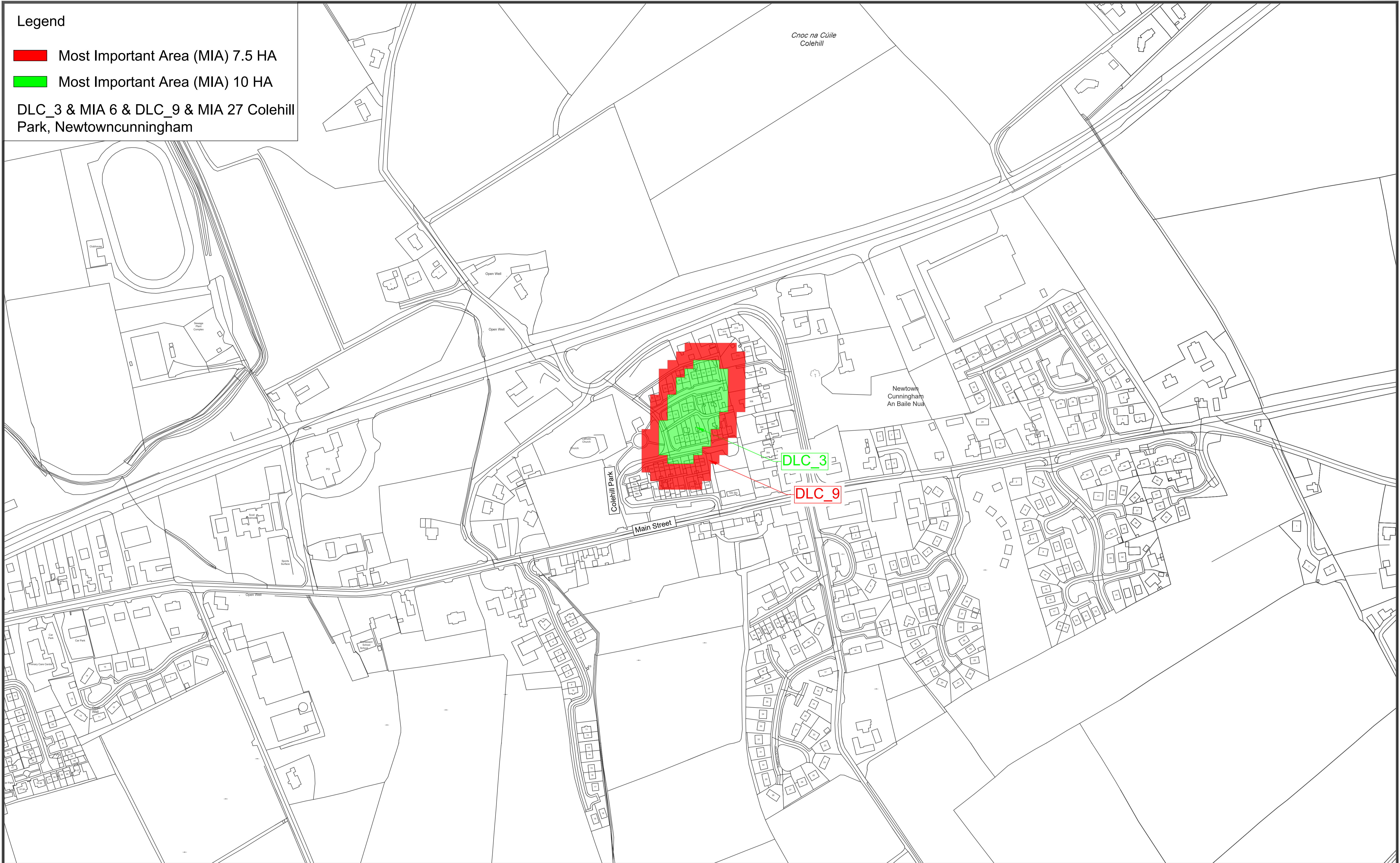
Rev: - - -
Drawing no.: 004

### Legend

 Most Important Area (MIA) 7.5 HA

 Most Important Area (MIA) 10 HA

DLC\_3 & MIA 6 & DLC\_9 & MIA 27 Colehill  
Park, Newtowncunningham



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Rev	By	Date	Description

## Purpose of Drawings

- |   |  |                                       |
|---|--|---------------------------------------|
| <input checked="" type="checkbox"/> Information | <input type="checkbox"/> CPO           | <input type="checkbox"/> Land Reg     |
| <input type="checkbox"/> Part 8                 | <input type="checkbox"/> Safety Design | <input type="checkbox"/> Construction |
| <input type="checkbox"/> Tender Issue           | <input type="checkbox"/> Acc Works     | <input type="checkbox"/> Other        |
| Prepared: JMC                                   | Date: March 2024                       |                                       |
| Checked: ROS                                    | Date: March 2024                       |                                       |
| Approved: RH                                    | Date: March 2024                       |                                       |

Horizontal Scales: 1:2000

Vertical Scale: N/A

File no:

Project: Noise Action Areas

Location: Letterkenny Municipal District

Dwg Title: DLC\_3 & MIA 6 & DLC\_9 & MIA 27 Colehill Park, Newtowncunningham

Rev: - - -

Drawing no.:

005

## APPENDIX C : PUBLIC CONSULTATION

### ***Details of the Public Consultation process***

A preliminary draft of this Noise Action Plan was prepared with the support and guidance of the Environmental Protection Agency (EPA).

The approval of the draft Noise Action Plan (NAP) is considered as an Executive function of the Council. However, it is also advised that the draft NAP should also be presented to the relevant Special Policy Committees (The Environment and Emergency Planning Strategic Policy Committee) as part of the consultation process. This action was undertaken in May 2024 with an online presentation with questions/answers session. The complete plan can be brought to the full Council via the relevant SPC for information purposes.

Action Planning Authorities should allow a minimum of 6 weeks for consultation, and a further 2 weeks for submissions, for the general public to have adequate time to participate in this process.

It is also recommended that in parallel to the wider public consultation, the APAs proactively seek consultation from relevant stakeholders such as:

- Department of the Environment, Climate and Communications;
- Department of Housing, Local Government and Heritage;
- Environmental Protection Agency;
- APAs for adjacent areas, and neighbouring Member States;
- NMBs, such as: TII;
- Local and regional authorities;
- relevant Special Policy Committees (SPCs);
- NGOs and professional bodies; and
- Local and national citizens groups.

The regulations require that reasonable time frames be adopted to allow sufficient time for each stage of the public participation process. The Council permitted 6 weeks to review the documentation and a further 2 weeks for submissions. A notice was placed in the local newspapers, the Donegal Democrat, Donegal News and Inish Times in advance advising the public of the locations where and when the draft Noise Action Plan 2024-2028 was on display :

- Donegal Town Public Services Centre
- Letterkenny Public Services Centre
- Carndonagh Public Services Centre
- Dungloe Public Services Centre
- Reception, Donegal Co. Co., County House, Lifford

A copy of the draft Noise Action Plan 2024-2028 was also made available to download on the Donegal County Council website <https://consult.donegal.ie/> .

The consultation process was also advertised on social media and via radio announcement.

The consultation period extended from 19<sup>th</sup> April 2024 for a period of 6 weeks with a further 2 weeks for submissions, ending at 4.00pm on the 14<sup>th</sup> June 2024 during which time written submissions were invited.

As part of the consultation process and in accordance with the recommendations of the guidelines, Donegal County Council forwarded a copy of the Draft Noise Action Plan to the following statutory bodies and stakeholder organisations and asked for their comments on the draft plan:

- Department of Transport
- Department of the Environment, Climate and Communications;
- Department of Housing, Local Government and Heritage;
- Transport Infrastructure Ireland
- National transport Authority
- Northwest Regional Assembly
- Leitrim County Council
- The Department for Regional Development (DRD) (Northern Ireland)
- Derry City Strabane District Council
- Fermanagh District Council
- An Taisce
- Donegal Environment and Emergency Planning Strategic Policy Committee
- Donegal Roads & Transportation Strategic Policy Committee
- Donegal National Road Design Office
- Donegal Planning Authority
- Donegal Public Participation Network

Members of the public were asked to submit any observations, comments or suggestions in relation to the plan in writing to The County Secretariat Office, Donegal County Council, County House, Lifford, County Donegal marked "Submission - Draft Noise Action Plan 2024-2028", via the Consultation Hub website at <https://consult.donegal.ie/> or emailed to noiseactionplan@donegalcoco.ie before 4.00p.m. on 14<sup>th</sup> June 2024.

#### **Access to Consultation Process**

Donegal County Council made all responses available to the public under The Freedom of Information Act (Amendment) 2014, Data Protection (Amendment) Act 2013 and the Department of Public Expenditure and Reforms publication 'Consultation Principles & Guidance' (2016). All responses can be viewed online on the consultation web pages of Donegal County Council website at: <https://consult.donegal.ie/>

#### **Process Following Consultation**

In summary and as of the closing date of the public consultation process, there were 10 submissions received, 5 of which were acknowledgements from Statutory Consultees with no objections raised and 2 of which were submissions from members of the public relating to actions to be further addressed under the implementation phase.

Themes	Responses	Action	Submission no.	Submission from
<b>Relating to the END NAP Road Noise</b>	<b>Covered by END</b>	<b>No amendment to the NAP in relation to submissions</b>	<b>Cumulative</b>	<b>Member of Public / Statutory Consultee</b>
Acknowledgements / no objections from Statutory Bodies	N/A	N/A	5	Statutory Consultee (5 no)
Individual submissions in relation to road noise impacts as specific locations	Consider further during the implementation stage	Acknowledge submission and consider further during the implementation stage	7	Member of public (2 no)

There were a further 3 submissions which were not related to the END and cannot be addressed under the Donegal Noise Action Plan 2024. Responses will issue to the 5 submissions from the public.

Themes	Responses	Action	Submission no.	Submission from
<b>Not relevant to the END</b>	<b>Not covered by END</b>	<b>No amendment to the NAP in relation to submissions</b>	<b>Cumulative</b>	<b>Member of Public / Statutory Consultee</b>
Submission in relation to impact of construction related noise	Use LA noise complaints process to raise matters /concerns Use County Development Plan review process to raise matters/concerns	Follow up with Planning and Environment to prepare specific response for issue	8	Member of public
Submission in relation to non NAP road noise resulting from driver behaviour (non specific location)	Use LA Road Safety process to raise matters/concerns	Issue response note following consultation with AGS/Safety teams	9	Member of public
Interest expressed in relation to tendering for implementation of NAP actions as set out in the plan itself	Use LA Procurement process for specialist services for information purposes	Issue response note advising of procurement process for specialist services for information purposes	10	Member of public

The submissions did not result in the requirement to make any amendments to the NAP as advertised. As set out previously in this Plan, Donegal County Council is the “Action Planning Authority” for Donegal and it is a statutory function (in relation to environmental protection for the purposes of Section 63 of the Environmental Protection Agency Act 1992) for the Council to provide a Noise Action Plan in consultation with the EPA and the noise mapping bodies and in accordance with EPA relevant specified dates as set out below :

- 18 July 2024: Latest date at which Donegal Noise Action Plan is to be made
- 18 August 2024: Latest date for which Donegal Noise Action Plan is to be published

The approval of the Noise Action Plan (NAP) is considered as an Executive function of the Council. The Donegal Noise Action Plan was made by the 18<sup>th</sup> July 2024 and issued to Plenary Council for information at the July 2024 Meeting. The NAP was published thereafter and by the 18<sup>th</sup> August 2024.

## APPENDIX D – EPA GUIDELINES CHECKLIST

No.	Guidance Page No.	Description	Requirement	Included in NAP?	Notes
1	P10 - 15	Effects of noise on health outlined	Recommended	Yes	
2	P15	Wider context of local and national policy considered	Recommended	Yes	
3	P18	Timetable – is timetable proposed which enables Action Plan to be reported on time	Recommended	Yes	
4	P18	Are internal resources used to make and implement noise action plan outlined	Recommended	Yes	
5	P37	Statement re policy regarding aims & objectives of using EPA Act	Recommended	Yes	
6	P39	review of relevant Regional and Local policy or guidance on the management of environmental noise	Recommended	Yes	
7	P41	Agglomeration APAs coordinate to develop consistent approach	Recommended	N/A	
8	P41	Agglomeration LAs coordinate to avoid overlaps	Recommended	N/A	
9	P41	FCC consultation with adjacent affected APAs when drawing up major airport NAP	Recommended	N/A	
10	P41 & 42	ICAO balanced approach element on land use management and planning considered with NAPs which include airport noise	Recommended	N/A	
11	P42	Coordination with neighbouring APAs where noise from mapped sources crosses over County boundaries	Recommended	N/A	
12	P42	Consultation with EPA	Mandatory	Yes	
13	P42	Consultation with relevant NMBs	Mandatory	Yes	
14	P42	Review previous noise action plan – including reason for review	Mandatory		
15	P42	Co-operate with counterparts in neighbouring States, if applicable	Mandatory, if applicable	N/A	
16	P42	Measures determined to be included in NAP	Mandatory	Yes	
17	P43	Quiet areas delimited	Optional	No	Part of the NAP to review
18	P43	Public have been consulted	Mandatory	Q2 2024	
19	P43	Public were given early and effective opportunities to participate	Mandatory	Q2 2024	
20	P42	Result of public consultation were taken into consideration	Mandatory	Yes	
21	P43	Reasonable time-frames were adopted for public consultation	Mandatory	Yes	
22	P43	Summary of NAP to be, or has been, submitted to EPA within 1 month	Mandatory	Yes	
23	P43	Annual reports have been, or shall be, submitted to EPA	Mandatory	Yes	
24	P43	NAP includes priorities to be addressed	Mandatory	Yes	
25	P43	NAP includes all minimum requirements from Fourth Schedule of Regulations	Mandatory	Yes	
26	P43	Objective to protect quiet areas in agglomerations	Mandatory, if applicable	N/A	
27	P43	Objective to protect quiet areas in open countryside	Mandatory, if applicable	Yes	Part of the NAP to review

No.	Guidance Page No.	Description	Requirement	Included in NAP?	Notes
28	P43	Estimated reduction in harmful effects due to mitigation measures in the NAP	Mandatory, if applicable		
29	P44	Review of implementation of the previous NAP	Mandatory, if applicable		
30	P44	Description of the agglomeration, the major roads, the major railways or major airports and other noise sources taken into account	Mandatory	Yes	
31	P44	The authority responsible	Mandatory	Yes	
32	P44	The legal context	Mandatory	Yes	
33	P44	Any statutory limit values in place	Mandatory	Yes	
34	P45	Summary of the results of the noise mapping	Mandatory	Yes	
35	P45	Evaluation of the estimated number of people exposed to noise, identification of problems, and situations that need to be improved	Mandatory	Yes	
36	P45	Record of the public consultations organised	Mandatory	Q2 2024	
37	P45	Any noise-reduction measures already in force and any projects in preparation	Mandatory	Yes	
38	P46	Actions which the APAs intend to take in the next five years, including any measures to preserve quiet areas	Mandatory	Yes	
39	P46	Long-term strategy	Mandatory	Yes	
40	P46	Financial information (if available): budgets, cost-effectiveness assessment, cost-benefit assessment	Mandatory	Yes	
41	P46	Provisions envisaged for evaluating the implementation and the results of the action plan	Mandatory	Yes	
42	P47	The actions which the action planning authorities intend to take in the fields within their competence	Mandatory	Yes	
43	P47	Estimates in terms of the reduction of the number of people affected (annoyed, sleep disturbed, or other)	Mandatory	Yes	
44	P47	Completed review checklist (Appendix D) included in NAP	Recommended	Yes	
45	P48	Review of previous NAP: Has there been a material change in environmental noise since the previous NAP?	Recommended	Yes	Assessment criteria switched to population density/100m2
46	P49	Review of previous NAP includes how undertaken, conclusions drawn and subsequent action?	Recommended	Yes	
47	P49	Does review of previous NAP include: - progress against timetable, - changes in noise situation and exposures, - details of actions undertaken, - costs, - dates, - numbers of people affected or benefited?	Recommended	Yes	
48	P49	Appendix D review checklist utilised?	Recommended	Yes	
49	P50	Three step approach adopted to identify IAs, MIAs and PIAs	Recommended	Yes	
50	P52	Confirm levels used to identify IAs	Recommended	Yes	
51	P55	Confirm population density used to identify MIAs	Recommended	Yes	

No.	Guidance Page No.	Description	Requirement	Included in NAP?	Notes
52	P55	Evidence based alternative method used to identify MIAs?	Recommended	Yes	
53	P56	Aspects considered when selecting PIAs	Recommended	Yes	
54	P56	Number of PIAs identified in NAP	Recommended	Yes	
55	P56	Rationale for each PIA included	Recommended	Yes	
56	P57	Approach to long term monitoring described	Recommended	Yes	
57	P57	Approach to validating noise calculation model described	Recommended	Yes	
58	P61	Review of noise mitigation measures: - within responsibility of APAs - within responsibility of NMBs or other third-parties	Recommended	Yes	
59	P61	Record of consultation with NMBs and third-parties when selecting feasible noise mitigation measures	Recommended	Yes	
60	P61	Approach to assessing noise mitigation measures described	Recommended	Yes	
61	P62	Approach to cost benefit analysis described	Recommended	Yes	
62	P72	Approach to identify CQAs adopted	Recommended	Yes	
63	P73	PCQAs identified	Recommended	No	
64	P75	CQAs identified	Recommended	No	
65	P75	Approach to delimiting QAs from CQAs described	Recommended	Yes	
66	P76	CQAs in open countryside identified	Recommended	No	
67	P79	Effectiveness of local planning policies or guidance on the management of environmental noise is discussed	Recommended	No	
68	P83	SEA pre-screening undertaken	Recommended	Underway	Further screening on identified solutions if required.
69	P83	SEA screening undertaking	Recommended	Underway	Further screening on identified solutions if required.
70	P83	SEA undertaken	Recommended if necessary	Underway	Further screening on identified solutions if required.
71	P84	AA screening undertaken	Recommended	Underway	Further screening on identified solutions if required.
72	P84	AA undertaken	Recommended if necessary	Underway	Further screening on identified solutions if required.
73	P86	Consultation process has regard for DPER guidance	Recommended	Underway	Further screening on identified solutions if required.
74	P86	Length of public consultation period documented	Recommended	Yes	
75	P86	Consultation stakeholders listed	Recommended	Yes	
76	P86	Consultation responses summarised	Recommended		Following consultation period
77	P86	Amendments to NAP following consultation documented	Recommended		Following consultation period

No.	Guidance Page No.	Description	Requirement	Included in NAP?	Notes
78	P86	Finalised NAP approval documented	Recommended		Following consultation period
79	P87	Approach to approved NAP dissemination described	Recommended		Following consultation period
80	P87	Summary NAP clear and comprehensible, and include a summary setting out the most important points	Mandatory	Yes	
81	P87	Approved NAP made available within 1 month of being made	Mandatory	Yes	
82	P87	Dissemination uses available information technologies	Mandatory	Yes	
83	P87	Publication and dissemination follows AIE Regulations and DECC guidance	Mandatory	Yes	