

ROSCOMMON COUNTY COUNCIL

NOISE ACTION PLAN 2024 – 2028



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Executive Summary

This Noise Action Plan has been prepared by Roscommon County Council for major roads carrying more than three million vehicles per annum, which in County Roscommon comprises the M6 Motorway/N6 Dual Carriageway, 15km of the N61 between the M6 and Lecarrow and 0.3km of road N4 within the urban area of Cortober near Carrick-on-Shannon. This is the third Noise Action Plan devised for Co. Roscommon and it supersedes the 2018-2023 Noise Action Plan. The method of assessment of noise for this plan (Round 4 Noise Mapping) is the common EU noise calculation methodology, CNOSSOS-EU 2015, which is different from the UK CRTN 1988 method used for previous Noise Action Plan.

The plan was prepared in accordance with the (Environmental Noise) Regulations 2018, S.I. No. 549 of 2018 and the (Environmental Noise) (Amendment) Regulations 2021 (S.I. No. 663/2021). These Regulations give effect to the EU Directive 2002/49/EC relating to the assessment and management of environmental noise (END Directive). The aim of the Directive and the Regulations is to provide for the implementation of an EC common approach to avoid, prevent or reduce on a prioritized basis the harmful effects, including annoyance, due to exposure to environmental noise. Adverse health effects of noise from road traffic can cause High Annoyance (HA), High Sleep Disturbance (HSD) and Ischaemic Heart Disease (IHD).

Environmental noise can be 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 noise in agglomerations over a specified size. Types of noise not included in these 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.

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

- Major railways with more than 30,000 trains per annum (not applicable to Roscommon)
- Major airports with more than 50,000 flights per annum (not applicable to Roscommon)
- Major Roads with more than 3 million vehicles per annum (applicable to 20km of the M6 Motorway/N6 Dual Carriageway, 15km of the N61 between the M6 and Lecarrow and 0.3km of road N4 within the urban area of Cortober near Carrick-on-Shannon) and
- Agglomerations of greater than 100,000 habitants (not applicable to Roscommon)

In 2021 Transport Infrastructure Ireland (TII), as the designated noise mapping body for the development of strategic noise maps for all major national roads

carrying in excess of 3 million vehicles a year. Roscommon County Council, as the designated Noise Mapping Body for major non-national roads, engaged in a centralised approach with a number of other Local Authorities to commission TII to prepare noise maps and population exposure assessments for major non-national roads carrying more than 3 million vehicles per annum. In this assessment TII mapped the M6 Motorway/N6 Dual Carriageway, 15km of the N61 between the M6 and Lecarrow and 0.3km of road N4 within the urban area of Cortober near Carrick-on-Shannon.

Noise maps for County Roscommon are presented in terms of two noise indicators; L_{den} and L_{night} . L_{den} is the day-evening-night noise indicator and it represents the noise indicator for overall annoyance. It is based on day (07:00-19:00), evening (19:00-23:00) and night (23:00-07:00) time periods and it is weighted to account for extra annoyance in the evening and night periods. L_{night} is the night time noise indicator and is used in the assessment of sleep disturbance. It is based on night (23:00-07:00) time period. Both of these indicators are based on year-long averages of the day, evening and night time periods and each are plotted separately for the required roads in the County. Maps for the M6 Motorway/N6 Dual Carriageway, 15km of the N61 between the M6 and Lecarrow and 0.3km of road N4 within the urban area of Cortober near Carrick-on-Shannon are presented in Appendix C. Each map presents the noise levels in 5dB contour bands.

The Environmental Protection Agency following consultation with noise mapping bodies and action planning authorities have establish “other relevant criteria” to identify Important Areas, but this criterion should not be interpreted as indicate acceptance or unacceptable levels of noise exposure. The results of the strategic noise mapping provide information on the predicted noise levels at all noise sensitive properties within the assessment area, along with an estimate of the number of inhabitants. This data is then used to identify Important Areas (IAs), as required under the Regulations, where long term noise exposure to noise from infrastructure is likely to produce negative health effects on the exposed population. Important Areas (IAs) are all areas exposed above the outdoor noise levels of $L_{den} = 53\text{dBA}$ and $L_{night} = 45\text{dBA}$. as per “other relevant criteria”

A summary of the number of people in dwellings and number in noise sensitive receptors (schools and hospitals) in Roscommon, which experience environmental noise from major roads, above the guide levels is provided here:

Guide Level	Number of People in Dwellings	Number of School Buildings	Number of Hospital Buildings
>53 dBA L_{den}	3,897	3	0
>45 dBA L_{night}	3,679	4	0

For each Important Area i.e. noise sensitive location that comes within the L_{den} 53dBA limit value and/or L_{night} 45dBA limit value, the population exposure at that

noise sensitive location was assessed and the harmful effects. This data was then used to determine Most Important Areas (MIAs), which are a sub-set of Important Areas where the health effects are highest, typically through a product of noise exposure level and the number of people highly annoyed at geographically specific locations. This is done using the criterion of number of people Highly Annoyed per 100m². Guide density criteria of 15 or more people per 100m² was used to determine Most Important Areas in main urban areas, with lower criteria of 10 and 7.5 people per 100m² appropriate on the edge of urban or in rural areas.

The approach to identifying Most Important Areas is of a statistical nature and pertains to the entire population encompassed by the noise maps. It should not be construed as a precise assessment of harmful effects for specific buildings, nor are the extents of the Most Important Areas definitive. Instead, they are indicative in identifying areas with a relatively high number of people who may be potentially highly annoyed due to noise. A summary of the Most Important Areas identified along the major routes using the EPA Guidance density criteria is shown:

Highly Annoyed (HA) Threshold/100m ²	Number of MIA's near Major Roads	Number of People in MIA			
		Total	Highly Annoyed (HA)	Highly Sleep Disturbed (HSD)	Ischaemic Heart Disease (IHD)
7.5	5	493	92	28	0
10	3	255	49	16	0
15	1	40	6	2	0

The MIA calculation process identified 8 MIAs along major routes in the County. Following on from this, a list of five Priority Important Areas was provided to the Council by an external consultant, based on those Most Important Areas with the highest total population, generated using the EPA Guidance density criterion 15/10/7.5 or more people per 100m². These are shown in Appendix C. All PIAs identified are located along a 1.2km stretch of the N6/M6 outside Athlone at Junction 13 and also parts of the R362 and R446 leading South from J13. Therefore for the purposes of this Noise Action Plan, as the five areas identified are in close proximity to each other, they will be examined as one PIA as shown:

Approved PIA (2024-2028)	MIA	Location
PIA_1	RNC_1	St. Comans Park
	RNC_2	Cushla Lawns
	RNC_3	Danesfort & R362

	RNC_4	Cluainbroc & R362
	RNC_5	Manor Valley & R446

It is accepted that the methodology used for selection of MIAs and PIAs may result in locations with similar or even higher noise exposure levels and lower levels of population density not being identified as MIAs. However, Roscommon County Council may consider examining locations along major routes and including them as PIAs under the lifetime of this NAP, in cases where complaints relating to road traffic noise emanated prior to the adoption of this NAP.

The previous Noise Action Plan (2018-2023) used a different approach to assess locations for consideration for noise mitigation using a decision matrix, which identified six priority areas for assessment including three national schools, two nursing homes and one hospital. At one of the identified areas, Knockcroghery N.S on the N61, works were undertaken that included raising the pedestrian crossing, traffic calming and reducing the speed level. No other noise mitigation works were carried out during the previous NAP.

The purpose of the Noise Action Plan is to endeavour to manage the existing noise environment on the major roads; M6/M6, N61 and N4 Cortober near Carrick-on-Shannon and protect the future noise environment within the action planning area. Management of the existing noise environment will be achieved by verifying noise in the PIA and undertaking a cost-benefit analysis for noise mitigation, where required. Protection of the future noise environment will be achieved through the planning process such as land-use planning, development planning, sound insulation measures, traffic planning and control of environmental noise sources.

A pre-screening check on this Noise Action Plan was carried out in line with Strategic Environmental Assessment (SEA) Directive which requires that assessment of the effects of certain plans and programmes on the environment be carried out. The SEA Screening concluded this plan does not satisfy the conditions for mandatory SEA under S.I. 435/2004, so does not require further SEA. A Statement of Screening for Appropriate Assessment (AA) was also conducted, which concluded that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European sites. Further Screening for Appropriate Assessment (AA) will be conducted for any actions required under the Noise Action Plan to determine whether any project required over the 4-year period of the of the Noise Action Plan, 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 Noise Action Plan covers a four-year period beginning in 2024 and will be reviewed every five years thereafter in 2028. A 6-week public consultation period commenced on Friday 8th November 2024 and ended on Friday 20th December 2024, two submissions were received. Other bodies including Transport Infrastructure Ireland, adjacent Local Authorities and other relevant organisations were written to advise of the public consultation being undertaken. Guidance and

advice was obtained from the designated national authority, the EPA, at all stages of the process.

The following key actions are proposed over the lifetime of the NAP;

- Conduct noise monitoring and validate noise model for PIA1
- Review potential mitigation measures for PIA1 and cost benefit analysis.
- If applicable seek funding and approval to implement mitigation measures.

All proposals for development/works under the Noise Action Plan will be required to demonstrate compliance with the requirements of environmental and planning legislation and planning and licensing processes, including existing provisions of relevant land use plan(s) and policy documents such as the National Planning Framework and the Regional Spatial, the Economic Strategy for the Northern and Western Region and Roscommon County Development Plan 2022-2028.

1. Introduction

1.1 Policy Objective

Roscommon County Council's Noise Action Plan is aimed at strategic long term management of environmental noise from traffic on major routes within the County, particularly where the noise exposure levels have the potential to induce harmful effects on human health. This will require reduction of existing environmental traffic noise where practical and also protection of the future noise climate in areas not currently impacted by traffic noise.

1.2 Purpose

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. In 2002 the European Union issued a Directive (2002/49/EC) relating to the assessment and management of environmental noise, also known as the Environmental Noise Directive, hereafter referred to as the END.

The 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.

The aim of the END 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 prepare and publish strategic noise maps and noise management action plans every five years. This Noise Action Plan is the 3rd produced by Roscommon County Council and it replaces the previous Noise Action Plan 2018-2023.

1.3 Scope

Environmental Noise is defined in the Directive 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 Directive is aimed at establishing harmonised EU measures to reduce noise emitted by the major sources, in particular road and rail vehicles and infrastructure, aircraft, outdoor and industrial equipment and also at providing a basis for

developing and complementing the existing set of community measures concerning environmental noise.

It does not apply to noise that is caused by the exposed person himself/herself, noise from domestic activities, noise created by neighbours, noise at work places or noise inside means of transport or due to military activities in military areas. Noise maps are strategic tools and should not be used for the assessment of local noise nuisances.

The Regulations apply to environmental noise to which people are exposed, 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.

The Regulations set a threshold for roads, railways, agglomerations and airports falling under the scope of the Environmental Noise Regulations and strategic noise maps are prepared to display noise exposure levels in a given area, resulting from particular noise sources as follows;

- Major Roads >3 million vehicles/annum
- Major Railways >30,000 trains/annum
- Agglomerations >100,000 inhabitants (Dublin, Cork, Limerick)
- Airports >50,000 movements/annum

Within County Roscommon, the M6 Motorway/N6 Dual Carriageway and the N61 national primary route between the M6 to Lecarrow and a short section of road N4 at Cortober near Carrick-on-Shannon fall within the definition of a major road, as defined in the Regulations and it is these areas that the Noise Action Plan has been devised for. These thresholds will be used on an on-going basis normally at 5 yearly intervals, but this plan is devised for 4 years and will be revised in 2028.

This Noise Action Plan is prepared in line with the EPA *DRAFT Version 2 (March 2024) - Guidance Note for Noise Action Planning for the European Communities (Environmental Noise) Regulations 2018*. The EPA is the national authority for overseeing the implementation of the Environmental Noise Regulations and Roscommon County Council is the Action Planning Authority assigned with devising and implementing this Noise Action Plan. Strategic Noise Maps prepared for this Noise Action Plan were undertaken by Transport Infrastructure Ireland (TII), as the designated noise mapping body for the development of strategic noise maps for all major national roads carrying in excess of 3 million vehicles a year.

1.4 Consultation

This draft Noise Action Plan was put on public display for a period of six weeks from the 08/11/2024 to the 20/12/2024 where submissions were invited from members of the public.

A notice was placed in the Local Papers and on Social Media advising the public where the plan can be viewed and the timelines for the consultation process. The draft plan was placed on the Consultation Portal on Roscommon County Council's web site <https://consult.roscommoncoco.ie/> and was available for inspection at Roscommon County Council's Environment Offices at Aras an Chontae, Roscommon F42 VR98.

Submissions can be made on *Council's Consultation portal* by 12pm on 20th December 2024. Any submissions received will be considered and incorporated, as appropriate, into the final Noise Action Plan.

Submissions were also invited from the following stakeholders:

- All Roscommon County Council Elected Representatives
- Department of Environment, Climate and Communications
- Department of Transport
- Transport Infrastructure Ireland
- Iarnród Éireann
- Environmental Protection Agency
- Offaly County Council
- Westmeath County Council
- Longford County Council
- Leitrim County Council
- Sligo County Council
- Mayo County Council
- Galway County Council
- Public Participation Networks
- Economic Development, Enterprise, Regeneration SPC
- Roads, Planning, Emergency Services SPC
- Housing, Integration, Community, Culture SPC
- Climate Action, Environment, Rural Water SPC

1.5 Noise Action Plan Timetable

Under the Regulations, Roscommon County Council will adhere to the following timelines regarding the publishing of its Noise Action Plan.

- **Q4 2024** - Draft Noise Action Plan
- **Q4 2024** - Public consultation (6 weeks) on Draft Noise Action Plan
- **January 2025** - Publish Noise Action Plan
- **January 2025** - Summary of Noise Action Plan to be submitted to the EPA
- **18 Jan 2025** - Summary of all Noise Action Plans to be reported by the EPA to the European Environmental Agency

2. Noise and Effects on Health and Quality of Life

2.1 Noise Level Indicators

Noise maps for County Roscommon are presented in terms of two noise indicators; L_{den} and L_{night} , as specified in Article 6.2 of the END. L_{den} is the day-evening-night noise indicator and it represents the noise indicator for overall annoyance. It is based on day (07:00-19:00), evening (19:00-23:00) and night (23:00-07:00) time periods and it is weighted to account for extra annoyance in the evening and night periods. L_{night} is the night time noise indicator and is used in the assessment of sleep disturbance. It is based on night (23:00-07:00) time period. Both of these indicators are based on year-long averages of the day, evening and night time periods and each are plotted separately for the required roads in the County.

A summary of commonly used Indicators for environmental noise measurement, all expressed in terms of decibels (dB) include:

L_{den} = Day-evening-night noise indicator, which is representative of a 24hr period. The calculation of L_{den} assigns a 5dB penalty to evening levels and 10dB penalty to night levels to reflect people's extra sensitivity to noise during these periods. The L_{den} is the noise indicator for overall annoyance.

L_{night} = Night-time equivalent sound level. It is representative of night period (23:00-07:00 hr) and is the noise indicator for sleep disturbance

$L_{Aeq,T}$ = Equivalent sound level of period of T hours. The most common are $L_{Aeq, 16hr}$, $L_{Aeq, 24hr}$

L_{Amax} = Maximum sound level during measurement period

$L_{Aeq, 16hr}$ = The overall daytime noise level (07:00-23:00) used in planning and noise management decisions

2.2 Effects on Health and Quality of Life

Environmental noise exposure from transportation noise sources including road, rail and aircraft can significantly impact human health and research from the World Health Organisation (WHO) and the European Environment Agency (EEA) shows that environmental noise can contribute to:

- **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.

The World Health Organisation (WHO) Environmental Noise Guidelines for the European Region (October 2018) sets L_{den} 53dB and L_{night} 45dB guide levels for annoyance, above which adverse health effects and adverse effects on sleep may occur. The Environmental Protection Agency following consultation with noise mapping bodies and action planning authorities have establish “other relevant criteria” to identify Important Areas, but this criterion should not be interpreted as indicate acceptance or unacceptable levels of noise exposure. EPA DRAFT guidelines adopt the same guide levels. Therefore, this Noise Action Plan will consider Important Areas (IAs) where people are exposed to the following noise level, as determined by the strategic noise maps.

Road Traffic Noise – Important Area (IA)

- L_{den} - 53 dB (outside)
- L_{night} - 45 dB (outside)

Research on exposure to environmental noise and health impacts is ongoing and further guidelines from WHO issued during the course of this Noise Action Plan will be considered, where relevant to road traffic noise.

3. EU Legal and Policy Framework

Noise management measures outlined in this Action Plan must reflect EU policies and guidelines, along with EU Regulations. A summary of relevant EU regulations are outlined in this section.

3.1 EU Policy and Guidance

3.1.1 Zero Pollution Action Plan

The EU Zero Pollution Action Plan (ZPAP), launched in 2021 has a vision for 2050 that air, water and soil pollution is reduced to levels no longer harmful to health and natural ecosystems. This is translated into key 2030 targets to speed up reducing pollution at source, one of which is reducing the share of people chronically disturbed by transport noise by 30%, compared to 2017 levels.

The first integrated Zero Pollution Monitoring and Outlook Report 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, an EU study on the Assessment of Potential Health Benefits of Noise Abatement Measures in the EU – Phenomena 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.

3.1.2 EEA Reports

The European Environment Agency publication *Good practice guide on quiet areas - EEA Technical Report No 4/2014* makes recommendations based on examples of good practice in assessing and managing quiet areas in Europe. It uses Ireland in its example of applying a “suitability for quietness index map” at country level and it is planned to develop this for the whole of Europe.

3.2 EU Regulations and Directive

The management and control of environmental noise is enacted through International, European, national and local legislation, regulation and guidance. European Union directives and regulations most relevant to noise are outlined in this section.

3.2.1 END - 2002/49/EC

EU Directive 2002/49/EC on the assessment and management of environmental noise is commonly referred to as the Environmental Noise Directive or END. This Directive is transposed into Irish law as under The European Communities (Environmental Noise) Regulations 2018 (S.I. No. 549/2018) and The European Communities (Environmental Noise) (Amendment) Regulations 2021 (S.I. No. 663/2021).

The Directive aims 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 Directive requires that Member States:

1. Undertake strategic noise mapping to determine exposure to environmental noise.
2. Ensure information on environmental noise and its effects is made available to the public and
3. 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.

A number of Regulations to amend the END 2002/49/EC have been introduced and are detailed in the following sections.

3.2.2 CNOSSOS-EU – 2015/996 & 2021/1226

Directive 2015/996 establishing common noise assessment methods according to Directive 2002/49/EC replaced Annex II of the END, removed the recommended Interim Methods, and established the common noise assessment methods. It 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. The CNOSSOS-EU methods set out within the Directive are to be used for strategic noise maps under the END (since December 2018). A Corrigendum to Directive 2015/996 was published in January 2018 to address errors in the original Directive.

Directive 2021/1226 introduces a number of amendments to CNOSSOS-EU (Annex II of the END), some of which relate to road traffic noise modelling required to produce strategic noise maps. Both Directives were transposed into the Irish Regulations under The European Communities (Environmental Noise) Regulations 2018 (S.I. No. 549/2018).

3.2.3 Reporting - 2019/1010 & 2021/1967

Regulation 2019/1010 on the alignment of reporting obligations in the field of legislation related to the environment and amending Directive 2002/49/EC outlines

the mandatory reporting requirements to the European Environment Agency (EEA) and it provides for an additional 12 months for the development of R4 noise Action Plans (this one), which are due before 18 July 2024.

Commission Implementing Decisions (EU) 2021/1967 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.

Both 2019/1010 and 2021/1967 were transposed into Irish law via the European Communities (Environmental Noise) (Amendment) Regulations 2021.

3.2.4 Harmful Effects – 2020/367

Directive 2020/367 amends Annex III of the END and establishes health impact assessment methods i.e. assessment methods for the harmful effects of environmental noise based on the dose-response relationship established in the WHO *Environmental Noise Guidelines for the European Region* (2018). The health impacts to be assessed and reported for major sources specified in the END are:

- Number of people Highly Annoyed (HA)
- Number of people Highly Sleep Disturbed (HSD) for roads, railways and aircraft; and
- Instances of Ischemic Heart Disease (IHD) for roads.

This Directive was transposed into Irish Regulations via the European Communities (Environmental Noise) (Amendment) Regulations 2021

3.2.5 Industrial Emissions (IPPC) – 2010/75/EU

Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control) (recast) 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 (including noise) across the EU, in particular through better application of Best Available Techniques (BAT). In Ireland, Directive 2010/75/EU is transposed under European Union (Industrial Emissions) Regulations 2013, S.I. No. 138/2013, with the EPA designated as the competent authority for permitting under the Regulations.

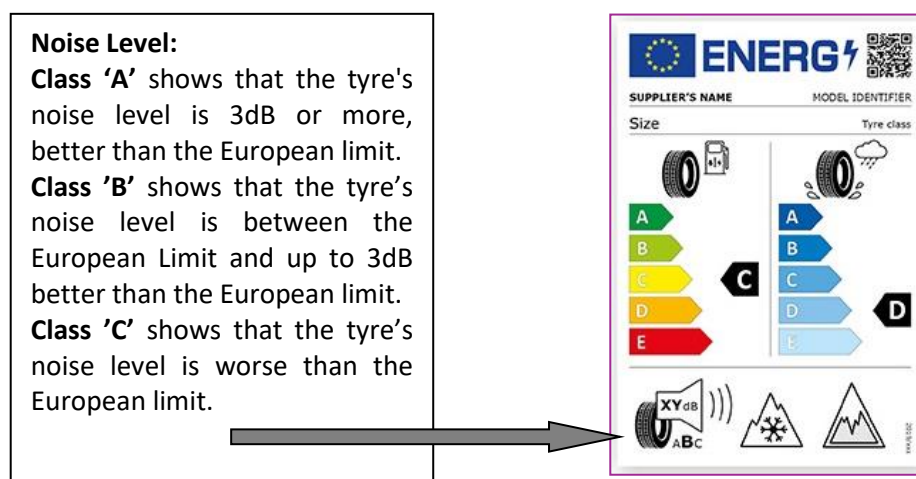
3.2.6 Vehicle & Tyre Regulations

A range of legislation for the automotive industry is in place and each of the 'automotive' sectors has specific regulations and provisions concerning noise emissions.

- **Regulation (EU) 2020/740** on labelling of tyres with respect to fuel efficiency and other parameters 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 Directive was transposed into Irish Legislation through European Union (Tyre Labelling) (Energy Efficiency) Regulations 2022, S.I. No. 670 or 2022.

Figure 1: Label Required on C1, C2 & C3 Tyres (from May 2021)



- **Regulation (EU) 2019/2144** (which amends 2018/858) 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 (CO₂) and rolling noise emissions from tyres. These regulations were transposed into Irish Regulations via the European Union (Road Vehicles: Type-Approval and Market Surveillance) Regulations 2020, S.I. No. 556/2020. Regulation (EU) 2019/2144, and the requirements for tyre performance included therein are replaced by the equivalent in UN Regulation Number 117 of the Economic Commission for Europe of the United Nations (UNECE) — 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 [2016/1350]. 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 No 51 of the Economic Commission for Europe of the United Nations (UNECE)** — Uniform provisions concerning the approval of motor vehicles having at least four wheels with regard to their sound emissions [2018/798] 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.

- **Regulation (EU) No 540/2014** on the sound level of motor vehicles and of replacement silencing systems establishes the administrative and technical requirements for the EU type-approval of all new vehicles of the categories M and N with regard to their sound level, and of replacement silencing systems and components. This Regulation came into force in July 2016 and has been amended by Commission Delegated Regulation (EU) 2017/1576 regarding the Acoustic Vehicle Alerting System requirements for vehicle EU-type approval and Commission Delegated Regulation (EU) 2019/839 regarding the sound level of motor vehicles and of replacement silencing systems .
- **Directive 2014/45/EU** regarding periodic roadworthiness tests for motor vehicles and their trailers establishes requirements for the periodic roadworthiness testing of motor vehicles. This Directive has been transposed into Irish legislation under the European Union (National Car Test - EU Roadworthiness Certificates) Regulations 2020, S.I. No. 554/2020, amending the Road Traffic Act 1961 (as amended), No. 24 of 1961; and the European Union (Commercial Vehicle Roadworthiness) (Roadworthiness Certificate and Roadworthiness Test) Regulations 2021, S.I. No. 617/2021, amending the Road Safety Authority (Commercial Vehicle Roadworthiness) Act 2012 (No. 16 of 2012). Under these Regulations, 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. 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. A motor vehicle will fail the roadworthiness test if the noise levels are in excess of those permitted. The roadworthiness testing of the noise of motor cycles is required as from 2022.
- **Directive 2014/47/EU** on the technical roadside inspection of the roadworthiness of commercial vehicles sets out requirements for carrying goods and passenger transport vehicles carrying more than eight passengers. 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.
- **Regulation (EU) No 168/2013** on the approval and market surveillance of two- or three-wheel vehicles and quadricycles is transposed into Irish Regulations via European Union (Two or Three Wheel Motor Vehicles and Quadricycles Type-Approval) Regulations 2015, S.I. No. 614/2015. This Regulation prohibits the use of defeat devices that reduce the effectiveness of, amongst others, sound abatement systems during normal vehicle operation and use.
- **Regulation (EU) No 167/2013** on the approval and market surveillance of agricultural and forestry vehicles is transposed into Ireland via the European Union (Agricultural or Forestry Vehicle Type Approval and Entry into Service) Regulations 2017, S.I. No. 645/2017

- **Regulation No 41 of the Economic Commission for Europe of the United Nations (UN/ECE)** Uniform provisions concerning the approval of motorcycles with regard to noise (2012)

In Ireland, the general safety and the protection of vehicle occupants and vulnerable road users comes within the remit of the Road Safety Authority (RSA) and the authority responsible for issuing all national approvals for brand new unregistered vehicles is the National Standards Authority of Ireland (NSAI). They are responsible for issuing type-approval, which is the process to certify that a model of a vehicle meets all EU safety, environmental and conformity of production requirements before allowing it to be placed on the EU market. The regulations typically include test procedures for vehicle specific sound level requirements and a Certificate of Conformity is required for each vehicle.

4. National Legal and Policy Framework

4.1 National Policy and Guidance

4.1.1 National Policy Objective 65

The Government of Ireland produced a report - Project Ireland 2040 - National Planning Framework (2018) and this included National Policy Objective 65 relating to Environmental Noise.

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.

In addressing these issues, the National Planning Framework will support:

Noise Management and Action Planning

Measures to avoid, mitigate, and minimise or promote the pro-active management of noise, where it is likely to have significant adverse impacts on health and quality of life, through strategic noise mapping, noise action plans and suitable planning conditions.

Noise, Amenity and Privacy

This includes but is not limited to, good acoustic design in new developments, in particular residential development, through a variety of measures such as setbacks and separation between noise sources and receptors, good acoustic design of buildings, building orientation, layout, building materials and noise barriers and buffer zones between various uses and thoroughfares.

Quiet Areas

The further enjoyment of natural resources, such as our green spaces, through the preservation of low sound levels or a reduction in undesirably high sound levels, is particularly important for providing respite from high levels of urban noise. As part of Noise Action Plans, an extra value placed on these areas, in terms of environmental quality and the consequential positive impact on quality of life and health, due to low sound levels and the absence of noise, can assist in achieving this.

Transport Initiatives

National and regional transport initiatives that may arise from implementation of the National Planning Framework (NPF) and the Regional Spatial and Economic Strategy (RSES) for the Northern and Western Region have the potential to result in adverse health effects that will need to be mitigated and/or beneficial effects with regard to preserving environmental noise quality. Such issues will be

considered during the implementation of the NPF and RSES, including as part of the environmental assessments, where required, for individual transport initiatives.

The National Planning Framework lists noise management as one of its Environment and Sustainability Goals for creating a clean environment for a healthy society, as follows:

Noise Management: *Incorporating consistent measures to avoid, mitigate and minimise or promote the pro-active management of noise.*

The inclusion of noise as a national policy objective ensures that it is considered in all future developments within the country.

4.1.2 National Planning Guidance

Local Authorities have it within their powers to set conditions relating to noise as part of a planning permission however, there is currently no national policy or guidance which addresses the issue of noise during planning, and no obligatory sector-specific limits. Two notable exceptions are:

- those referenced in the Planning and Development Regulations 2008, S.I. No. 235/2008, which specifies a 43dB 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. DoECLG Spatial Planning and National Roads Guidelines (2012) requires Planning authorities to engage with applicants and their agents to address, as an integral element of their development proposals, potential negative impacts (including noise and vibration) arising from existing or planned national roads. This could include mitigating impacts through appropriate design of buildings, landscaping features and site layout as part of the development proposal.

Other than IED/IPPC facilities regulated by the EPA, most facilities are controlled by Local Authorities, through planning permission and permits, which may have conditions relating to noise. 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 for enforcement purposes.

The current Irish Building Regulations (1997-2017) require that new dwellings and existing altered dwellings achieve a reasonable level of sound insulation from sound transmission emanating from attached dwellings or differently occupied parts of the same building. The Technical Guidance Document E on Sound relating to the Building Regulations/ 2014 (S.I. No.606 of 2014) outlines sound transmission values for airborne and impact sound. It is mandatory for new attached dwellings and altered dwellings built after 1st July 2015 to be sound tested by competent testers and adhere to the sound insulation values set in Technical Guidance Document E on Sound.

4.1.3 National Sustainable Mobility Policy

The National Sustainable Mobility Policy (2022) supersedes the previous national transport policy, Smarter Travel: A Sustainable Transport Future, A New Transport Policy for Ireland 2009–2020 and sets out the strategic framework to 2030 for active travel (walking and cycling) and public transport journeys to help Ireland meet its climate obligations. The policy is accompanied by an action plan running from 2022 to 2025, which sets out a range of actions to deliver overarching policy goals of delivering at least 500,000 additional daily active travel and public journeys by 2030 and a 10% reduction in the number of kilometres driven by fossil fuelled cars.

4.1.4 TII Guidance

Transport Infrastructure Ireland (TII) has published the Guidelines for the Treatment of Noise and Vibration in National Road Schemes, October 2004. These guidelines are based on TII's phased approach to road scheme planning and development. They cover the Constraints, Route Corridor Selection and Environmental Impact Assessment stages. The Guidelines also set out a “design goal” for noise to ensure that the current roads programme proceeds on a path of sustainable development. The design goal is that all new national road schemes should be designed, where feasible, to meet a day-evening-night sound level of 60dB Lden (free-field residential façade criterion), to be met both in the year of opening and in the design year, typically 15 years after projected year of opening.

TII accepts that it may not always be sustainable to provide adequate mitigation in order to achieve the design goal. Therefore, a structured approach should be taken in order to ameliorate, as far as is practicable within the particular circumstances of a given scheme, road traffic noise through the consideration of measures such as horizontal and vertical alignment, barriers, low noise road surfaces, etc. The Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes, March 2014 expands and supplements the advice already provided in the 2004 Guidelines.

TII is also in the processes of producing one additional ‘Standards Document’ relating to noise, which is scheduled to be published in Q4 2025; A Standard Document on the noise impact for national roads.

4.1.5 Wind Energy Planning Guidelines

The Department of Environment, Heritage and Local Government Wind Energy Development Guidelines (2006) provides recommended noise limits for houses near wind turbine developments which recommends a “lower fixed noise 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.

Draft Revised Wind Energy Development Guidelines were produced in December 2019 and propose new robust noise restriction limits which are consistent with World Health Organisation standards, proposing a relative rated noise limit of 5dB(A) above existing background noise within the range of 35 to 43dB(A) for both day and night, with 43dB(A) being the maximum noise limit permitted. The rated limit will take account of certain noise characteristics specific to wind turbines (e.g. tonal, low frequency and amplitude modulation) and where identified, the noise limit permitted will be further reduced to mitigate for these noise characteristics. The noise limits will apply to outdoor locations at any residential or noise sensitive properties. Local authorities will enforce the noise limits as conditioned in the planning permission, in conjunction with the Environmental Protection Agency who will provide independent noise monitoring of wind farms. It is proposed that where there is evidence of non-compliance with noise limits, wind turbines will be required to be turned off until compliance with the noise limits is proven.

The EPA Guidance Note on Noise Assessment of Wind Turbine Operations at EPA Licensed Sites (NG3) (2011) proposes the following Cumulative Site and Turbine Noise Limits

- Daytime 55 dB $L_{Ar,T}$
- Night-time 45 dB L_{Aeq}
- Wind turbine noise not to exceed 45 dB L_{Aeq} at any time, or to contain any significant tonal components
-

4.1.6 Quarries & Ancillary Activities Planning Guidelines

The Department of the Environment, Heritage and Local Government have published Guidelines for Planning Authorities on Quarries and Ancillary Activities (2004). This 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 $L_{Aeq,1hr}$ and 45 dB $L_{Aeq,15min}$ for daytime and night-time respectively, although more onerous values may be appropriate in areas with low levels of pre-existing background noise.

4.2 National Legislation

4.2.1 Environmental Noise Regulations 2018 & 2021

The END Directive 2002/14/EU is transposed into Irish Regulations under the European Communities (Environmental Noise) Regulations 2018, S.I. No. 549 of 2018 and the European Communities (Environmental Noise) (Amendment) Regulations 2021 (S.I. No. 663/2021). The regulations also transpose Directives

2015/996, 2019/1010, 2020/367, 2021/1226, 2021/1967, as outlined in Section 3.2.

The European Communities (Environmental Noise) Regulations 2018 replace Environmental Noise Regulations 2006 (S.I. No.140 of 2006). The Regulations set out a two-stage process for addressing environmental noise. Firstly, noise must be assessed through the preparation of strategic noise maps for areas and infrastructure falling within defined criteria, e.g. large agglomerations major roads, railways and airports. Secondly, based on the results of the mapping process, the Regulations require the preparation of noise action plans for each area concerned. Every five years from the date of preparation of the noise maps and action plans, and whenever there is a major development affecting noise, the maps and plans are required to be reviewed and revised, if necessary. The fundamental objective of action plans is the prevention and reduction of environmental noise. The Regulations designate noise-mapping bodies and action planning authorities for the making and reviewing of strategic noise maps and action plans. Primary responsibility for both noise mapping and action planning is assigned to local authorities. While a number of other bodies also have noise mapping functions, they will be carried out on behalf of the local authorities concerned. The Regulations designate the Environmental Protection Agency as the National Authority for the purposes of the Regulations. The Agency's role includes supervisory, advisory and coordination functions in relation to both noise mapping and action planning, as well as reporting requirements for the purpose of the Directive. The Regulations provide for strategic noise maps and action plans and revised noise maps and action plans to be made available to the general public. They also provide for public consultation on proposed action plans and the review of action plans and for the results of public consultation to be taken into account in finalising action plans or reviews of action plans.

The European Communities (Environmental Noise) (Amendment) Regulations 2021 give further effect to the implementation of Directive 2002/49/EC. The Regulations transpose EU Directive 2020/367 as regards the establishment of dose-effect relations to be introduced by way of adaptations to technical and scientific progress. The Regulations also transpose Commission Delegated Directive (EU) 2021/1226, for the purposes of adapting to scientific and technical progress Annex II to Directive 2002/49/EC. The Regulations also transpose EU Regulation 2019/1010 and the associated Commission Implementing Decision (EU) 2021/1967, which develop a mandatory data repository and a mandatory digital information exchange mechanism to enable Member States to share information on strategic noise maps and noise action plans. The Regulations also update agglomeration definitions in light of expansions in the urban landscape over the last 15 years.

4.2.2 EPA Act 1992

In Ireland, the principal law relating to noise is Sections 106, 107, and 108 of Part VI of the Environmental Protection Agency (EPA) Act 1992.

S106: The Minister for the Environment has power under Section 106 of this Act, after consulting with other concerned Ministers and the EPA, to make regulations for the purpose of the prevention or limitation of any noise which may give rise to a nuisance or disamenity, constitute a danger to health or damage property. However, no such regulations have been introduced to date.

S107: Local Authorities have powers under Section 107(1) to serve a notice on any person in charge of premises, processes or works, other than an activity which is licensable under IPC, when they consider that it is necessary to do so in order to prevent or limit noise. The EPA has the same power in relation to an activity licensable by it.

S108: The (Noise) Regulations 1994 (S.I. 179) which implemented Section 108 of the EPA Act 1992, were designed to simplify and strengthen the procedures for dealing with noise nuisance. A Local Authority, the EPA or any other affected person may complain to the District Court under Section 108(1) of the EPA Act, where any noise is so loud, so continuous, so repeated, of such duration or pitch or occurring at such times as to give reasonable cause or annoyance to a person in any premises in the neighbourhood, or to a person lawfully using any public place. The EPA Act provides a method for dealing with nuisance noise in the community. It does not however, address noise pollution in the long term. The END, enacted through the Environmental Noise Regulations, is the beginning of a framework to develop long term strategic policies to combat noise pollution and protect the public from potentially harmful effects of environmental noise exposure

The powers set out within the EPA act largely relate to the control of noise nuisance which may include neighbourhood nuisance, music, industry or other activities.

4.2.3 IED/IPPC Regulations

Certain activities that fall under the requirements for an Industrial Emissions (IE) Licence, Integrated Pollution Prevention Control (IPPC) Licence or Waste Licence from the EPA may be subject to noise conditions. The EPA *Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) (Jan 2016)* sets out the requirements for noise assessments and sets the typical limit values for noise from licensed sites as;

- Daytime (07:00 to 19:00hrs) – 55dB $L_{Ar,T}$
- Evening (19:00 to 23:00hrs) – 50dB $L_{Ar,T}$
- Night-time (23:00 to 07:00hrs) – 45dB $L_{Aeq,T}$

Lower noise limit criteria is suggested for areas of low background noise and quiet areas. Noise limits are generally set at nearby noise sensitive locations to the development and an annual noise survey is typically required by the licence holder.

Whilst these limits have a very specific application, they have appeared in many different contexts and often form the basis for conditions in planning permissions.

NG4 recommends a “Best Available Technique” approach to the assessment and mitigation of noise pollution. This approach should consider the nature of the noise e.g. constant, impulsive or tonal, the nature of the surrounding environment and the time and duration of noise emissions.

4.3 Regional or Local Policy and Guidance

4.3.1 Regional Spatial and Economic Strategy

The Northern and Western Regional Assembly Regional Spatial and Economic Strategy 2020-2032, produced by the Government of Ireland Project Ireland 2040 will be considered by Roscommon County Council for future Noise Action Planning in areas relating to Transport and the Road Network and all areas relating to national roads in Roscommon.

4.3.2 Roscommon County Development Plan

The Roscommon County Development Plan 2022-2028, makes reference to noise in Sections 6.5 for the Extractive Industry, Section 7.11 Waste Management, Section 12.11 on Backyard Development and Section 12.15 on Commercial Development relating to Fast Food & Take Away Outlets. In addition, Section 12.5 on Overarching Planning Principles provides details on assessments required for planning purposes and states:

*Proposals for development will be assessed in terms of potential impact on existing adjacent developments, existing land uses and/or the surrounding landscape. Where proposed developments would be likely to have a significant adverse effect on the amenities of the area through pollution by **noise**, fumes, odours, dust, grit or vibration, or cause pollution of air, water and/or soil, mitigation measures should be included in order to eliminate adverse environmental impacts or reduce them to an acceptable operating level.*

4.3.3 Roscommon Climate Action Plan

The County Roscommon Local Authority Climate Action Plan January 2024 Strategic Goal regarding the Built Environment and Transport is:

To lead in the delivery of appropriate amenity and tourism development in line with the principles of just transition, transport management that prioritises the environmental integrity of the county and the health and wellbeing of its citizens in tandem with sustainable land management and a built environment that reflects the low carbon ambition of RCC.

The Built Environment and Transport Actions 4 (BET4) aspires to:

*Promote the development of suitable alternative energy projects in appropriate areas, including on degraded lands in RCC ownership (e.g. historic landfill sites) and particularly those developed and run by communities aligned with the SEC programme and in accordance with the adopted RCC Renewable Energy Strategy (CDP); having due regard to landscape and visual amenity and environmental sensitivities such as biodiversity, **noise environment**, air environment and European Sites, where it is confirmed through a glint and glare assessment that any solar development will not have any potential glint and glare impact on sensitive receptors, or otherwise, where it is confirmed that any solar development constitutes exempted development under the Planning and Development Regulations by virtue of its size or location outside a Solar Safeguarding Zone.*

This Action is to support the Built Environment and Transport Objectives – BET (i) and BET (iii) as follows:

BET(i) - *Reduce emissions across all sectors identified at the earliest possible opportunity, prioritising actions related to Transport and Thermal emissions*

BET(iii) *Coordinate departments and mobilise communities and other stakeholders in the delivery of Climate Action through capacity building, support to access funding and tailored project development*

All areas where alternative means of transport or other transport initiatives are implemented under the Climate Action Plan will have the co-benefits of lower noise levels for individuals currently impacted by road traffic noise.

4.3.4 Athlone Joint Urban Area Plan 2024-2030

In December 2023, Westmeath County Council and Roscommon County Council commenced the preparation of the Athlone Joint Urban Area Plan 2024-2030. The Joint Urban Area Plan is a statutory document prepared by the Planning Authority in accordance with the requirements of the Planning & Development Act 2000 (as amended) and the Planning & Development Regulations 2001 (as amended).

The Joint Urban Area Plan will set out an overarching land use framework which will form the basis for deciding the appropriate locations for different types of future development of the area. Whilst the plan will be strategic in outlook and focus on key economic, social and environmental issues affecting Athlone, it will also include tailored and site specific objectives and actions to enable the town to fulfil its full development potential. The plan is currently at Pre-Draft Stage 1 of the process.

5. Responsible Authority for Action Planning

5.1 Name and Contact Details for the Responsible Authority

Roscommon County Council is the Action Planning Authority for this Noise Action Plan and Steering Groups within the council consisting of representative from the Environment Department, Planning Department and Roads Department will implement the plan. In County Roscommon, the noise source to be considered in this Noise Action Plan, as required under the Regulations relates to major roads carrying in excess of 3 million vehicles per year. The Action Planning Authority contact details are;

Noise Action Planning Authority
Environment Department
Roscommon County Council
Aras an Chontae
Roscommon

Tel: 090-6637100
Email: environ@roscommoncoco.ie

5.2 Description of other bodies of relevance

The Environmental Protection Agency (EPA) is the designated national authority responsible for overseeing the implementation of the Regulations. The EPA is required to provide advice and guidance to the relevant noise mapping bodies and action planning authorities and is responsible for reporting information to the European Commission. Further details can be found at <https://www.epa.ie/our-services/monitoring--assessment/noise/noise-mapping-and-action-plans/>.

Transport Infrastructure Ireland (TII), as the designated noise mapping body for the development of strategic noise maps for all major national roads carrying in excess of 3 million vehicles a year and Roscommon County Council is the designated noise mapping body for non-national major roads. However, For the purposes of this Noise Action Plan, TII prepared the noise maps for all major national and non-national roads with >3million passenger vehicles for County Roscommon. Further details can be found at <https://www.tii.ie/technical-services/environment/noise-maps/>.

Transport Infrastructure Ireland has overall responsibility for the national road network and provides funding to the Council for the maintenance and improvement of the national roads within the county. Roscommon County Council Roads Department is responsible for the planning, design, improvement and upkeep of the road network within the county. They provide a number of services including road opening licences, temporary road closures, road safety, winter maintenance, traffic management, public lighting, winter maintenance and emergency situations,

abnormal load permits, facility information signage, speed limits and reporting on planning applications as they relate to roads. Non-national roads are funded through the Department of Transport and from the Council's own resources.

5.3 Review of 2018-2023 Noise Action Plan

The previous Noise Action Plan (2018-2023) used a different approach to assess locations for consideration for noise mitigation. In the previous plan, locations that exceeded the proposed onset levels of 70dBA L_{den} and 57dBA L_{night} noise due to road traffic were considered. The recommended approach at that time was to use a decision matrix to obtain a score for individual locations, based on three variables:

1. The calculated environmental noise level (from the noise mapping data).
2. The type of location (e.g. town centre, commercial, residential).
3. The noise source (i.e. road, rail, airport, agglomeration)

The decision matrix tool was applied in 2018 for the previous NAP and the following areas were identified:

- Roscommon University Hospital (N61)
- Oakwood Nursing Home, Roscommon (N61)
- Knockcroghery N.S (N61)
- Kiltoom N.S (N61)
- Ballyleague N.S (N63)
- Costello's Nursing Home, Ballyleague (N63)

At one of the identified areas, Knockcroghery N.S on the N61, works were undertaken that included raising the pedestrian crossing, traffic calming and reducing the speed level.

Additionally, during the previous NAP, non-national roads within Roscommon County Council were assessed and traffic counts were below the 3 million vehicle per annum, therefore noise mapping for round 4 was not required.

6. Description of the Action Planning Areas

6.1 Extents

In County Roscommon, the only noise source to be considered by the Action Planning Authority relates to major roads carrying >3 million vehicles per year, as defined in the Regulations.

County Roscommon has approximately 3,987 km of roads as shown in Figure 1, that consist of approximately:

- M6 Motorway (20km) along the south of the County.
- National Primary Routes (85 km) comprising
 - N4 along the North of the county
 - N5 through the centre of the county and
 - N6 to the South of the county, which joins the M6.
- National Secondary Routes (147 km) comprising the N60, N61, N63 & N83
- Regional Routes (Non National) (373 km) - Various R Numbers
- Local Routes (Non National) (3362 km) - Various L Numbers

The M6 Motorway/N6 Dual Carriageway, 15km of the N61 between the M6 and Lecarrow and 0.3km of road N4 within the urban area of Cortober near Carrick-on-Shannon is included in this Noise Action Plan and the total road area considered in this Plan is approximately 35km.

Strategic Noise Maps have been produced that include the following Roads:

- 20km along N6/M6
- 15km on the N61 between the M6 and Lecarrow
- 0.3km of road N4 within the urban area of Cortober near Carrick-on-Shannon

Maps of the areas included in the Noise Action Plan are provided in Appendix C.

Once all required areas to be included in the strategic noise map was determined, the TII noise model looked at receivers in the region of a major road, within approximately 2km each side of the centreline of the road. The Regulations require the Action Plan to cover places near major roads affected by noise from the major sources. Noise from major sources is regarded as affecting an area if it causes either an L_{den} value of 53dB(A) or greater or an L_{night} value of 45dB(A) or greater anywhere within the area. For noise modelling purposes, TII took this to be within about 1km of the centreline of the major road as beyond this road traffic noise will not be a significant contributor in the background noise of an area.

Properties within this band (either an L_{den} value of 53dB(A) or greater or an L_{night} value of 45dB(A) or greater anywhere within the area) will be seen as eligible for inclusion in the assessment stage of noise action planning.

Figure 1: Roscommon Road Network



6.2 Topography/Geographical Location

Roscommon is 2,543 km² in area and one third of this is bogland, while the remaining arable land is used for the raising of cattle and sheep. Roscommon forms the west bank of the River Shannon for almost one third of its total length. It has the longest stretch of the Shannon of all the ten counties the river passes through.

Roscommon is one of five counties that make up the province of Connacht. It shares a border seven other counties: Galway to the southwest, Mayo to the west,

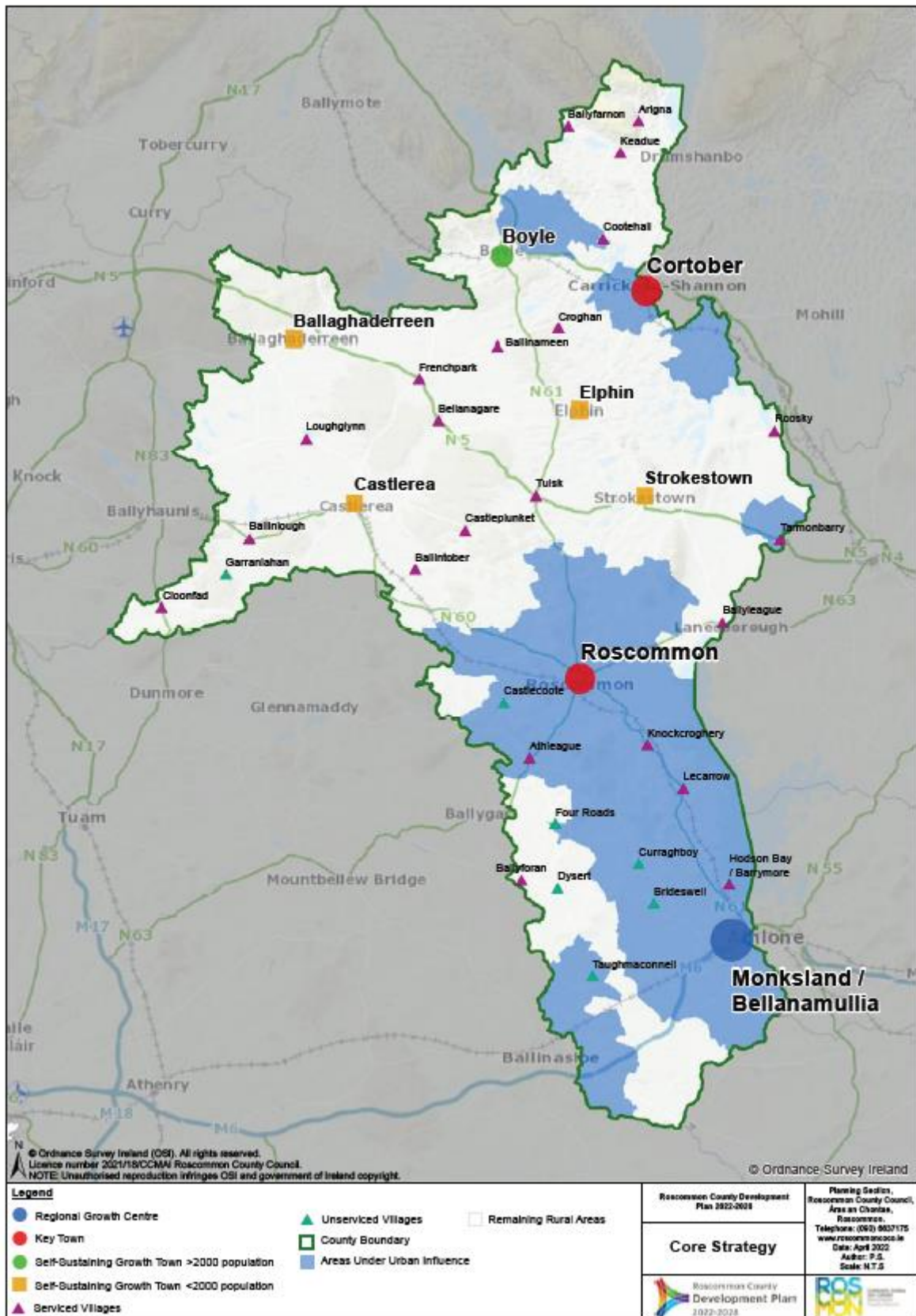
Sligo to the north, Leitrim to the northeast, Longford and Westmeath to the east and Offaly to the southeast. Two of these counties are significant in terms of this noise action plan as the M6 adjoin them; Westmeath and Galway. In addition, Leitrim is significant as it shares a border with Roscommon at Carrick-on-Shannon.

6.3 General Population

County Roscommon has a population of 70,259 (2022 census), which increased 1.4% since the previous census in 2016. Over half of the population live in urban communities: 38,000 people live in the county's towns, compared to 32,200 in villages and rural areas. Roscommon's highest populated town is shared with Westmeath across the River Shannon, with Athlone accounting for 22,869, of which 4,595 live in Roscommon. The next largest is Roscommon town with a population of 6,555. The Core Strategy Map from the Development Plan (2022-2028) is provided in Figure 2 and areas relevant to this Noise Action Plan; the N6/M6, part of the N61 and N4 Cortober near Carrick-on-Shannon are shown as "areas under urban influence".

A high proportion of homes in County Roscommon (>50%) are classed as one-off homes with multi-unit development generally confined to larger towns and some villages. Within the Noise Action Plan area there are some areas of ribbon development adjacent to sections of the motorway or along national roads near built up areas, which are continually exposed to environmental noise from road traffic.

Figure 2: Roscommon Core Strategy Map



6.4 Location of Noise Sensitive Groups

A noise sensitive location is any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or other area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels. For the purposes of this Noise Action Plan, the following locations are considered noise sensitive within the Action Plan area detailed in Section 6.1.

- Properties within noise envelope band (either an L_{den} value of 53dB(A) or greater or an L_{night} value of 45dB(A) or greater anywhere within the area)

6.5 Main Infrastructure/Services

Roscommon provides an important road transport link with a motorway (M6) between Athlone and Galway and three national primary routes which pass through the County: the N4 – Dublin to Sligo, the N5 – Longford to Westport, the N6 around Athlone, along with four national secondary routes: N60, N61, N63 & N83. TII have included the N6/M6 and some sections of the N61 and Cortober near Carrick-on-Shannon within the strategic noise maps due to the fact that they have an excess of 3 million cars movements per year. The majority roads in Roscommon are made up of regional and local roads, a reflection of the predominantly rural nature of the county. Latest traffic counts have indicated that none of these roads reach the threshold of 3 million vehicle movements per year and therefore are excluded from the noise mapping/action plan.

The Dublin - Ballina/Westport rail network passes through Roscommon via Roscommon Town and Castlerea. The volume of trains falls below the threshold of 30,000/year, therefore this is not included in the noise mapping/action plan, as is not required in Co. Roscommon. There are no airports within the county and therefore air transport is not a consideration for the noise mapping/action plan.

7. Existing Noise Management Framework

7.1 Roads

Noise Impact Assessments are undertaken for all major road upgrades in the County. The current Planning and Licensing system will manage potential development within the Roscommon area, where noise impact of developments is required to be assessed before planning is granted.

The N5 Ballaghaderreen to Scramoge Road Project is a major 33.4km road realignment scheme commenced in 2024 by Roscommon County Council, to bypass Frenchpark, Bellanagare, Tulsk and Strokestown with a Type 1 single carriageway road. This will significantly reduce traffic volumes (hence traffic noise) in the town for residential areas. The scheme will include noise mitigation measures for all areas that may be impacted by it at planning stage and the proposed by-pass road is scheduled for completion in 2027.

The N4 Carrick-on-Shannon to Dromod Project is a major road realignment scheme in planning by Leitrim County Council, to bypass Carrick-on-Shannon and the part of Carrick-on-Shannon in Roscommon (Cortober) is identified under this Noise Action Plan. This project will significantly reduce traffic volumes (hence traffic noise) in the town for residential areas. The scheme will include noise mitigation measures for all areas that may be impacted by it at planning stage and the proposed by-pass road is scheduled for completion in 2031.

7.2 Licenced Industrial Facilities

There are five licensed industrial facilities (IE Licence) in Monksland Industrial Park outside Athlone, north of the M6 motorway relevant to this Noise Action Plan and none of these are thought to significantly contribute to environmental noise. These are licensed and managed by the EPA and noise management conditions are set in the relevant licence for the site. <https://gis.epa.ie/EPAMaps/>.

8. Summary of the Results of the Noise Mapping

8.1 Overview of the Results of the Noise Mapping

Transport Infrastructure Ireland (TII) carried out noise mapping for the County and produced the strategic noise map for all major roads. This was done following the *EPA Round 4 Strategic Noise Mapping of Major Roads For the fourth round of the Environmental Noise Regulations 2018 (March 2021 - V2)*. A major road for R4 noise mapping could be any section of a National, Regional or Local road with a total annual bi-directional traffic flow across all carriageways during 2021 of more than 3 million vehicle passages per year, or approximately 8,219 per average 24 hours.

A strategic noise map is a graphical representation of the predicted noise level in a given area. A noise map has different colour coded bands, which represent the predicted decibels (dB(A)) within a certain range, also detailed on the map.

A noise map is produced using a computer software package - Predictor Noise Model was used in this case. To develop a noise map, a number of variables must be determined in order to correctly represent the amount of noise generated by traffic driving on the road. For road traffic noise, the noise level at the source is primarily influenced by the speed at which traffic is travelling, the overall quantity of vehicles in the traffic flow, the proportion of heavy commercial vehicles (HCVs) in the flow and the type of road surface in the area. The nominal assessment year for traffic data for Round 4 of the strategic noise mapping was 2021. For R4 a new common EU noise calculation methodology was used, CNOSSOS-EU 2015, which is different from the UK CRTN 1988 method used for previous noise mapping. The CNOSSOS-EU method groups road vehicles into different classes compared to CRTN.

The manner in which the noise level decreases with distance must then be calculated, which involves determining the reduction in noise level as it propagates from the source. Distance, ground cover and the presence of barriers such as walls, noise barriers etc will all influence the level of noise attenuation.

Noise maps for County Roscommon are presented in terms of two noise indicators; L_{den} and L_{night} . L_{den} is the day-evening-night noise indicator and it represents the noise indicator for overall annoyance. It is based on day (07:00-19:00), evening (19:00-23:00) and night (23:00-07:00) time periods and it is weighted to account for extra annoyance in the evening and night periods. L_{night} is the night time noise indicator and is used in the assessment of sleep disturbance. It is based on night (23:00-07:00) time period. Both of these indicators are based on year-long averages of the day, evening and night time periods and each are plotted separately for the required roads in the County.

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.

Because of the change to the calculation methods to the common European CNOSSOS-EU for R4 noise maps, it is difficult to compare these noise maps to the previous ones undertaken for Round 3. In addition, for Round 4 noise mapping, the terrain model is based on more detailed and accurate data, which has in turn has led to more reliable noise results with much less tendency to over predict the impact.

8.2 Presentation of Results

Two noise maps were produced by TII in 2022 for the County's major roads; one showing the $L_{den}(dB)$ and one showing the $L_{night}(dB)$ noise contour bands. Each map presents the noise levels in 5dB contour bands and are shown in Appendix C.

The L_{den} and L_{night} maps show the loudest noise is the road itself, while moving out from the road, the noise level reduces. As detailed in Section 6.1, noise from major sources is regarded as affecting an area if it causes either an L_{den} value of 53dB(A) or greater or an L_{night} value of 45dB(A) or greater anywhere within the area and this area extends approximately 500m from the centre line of the main road. On some stretches of road, the extent is much less and some areas, it may be slightly greater.

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 are then used to identify Important Areas (IAs), as required under the Regulations, where long term noise exposure to noise from infrastructure is likely to produce negative health effects on the exposed population. Important Areas (IAs) are all areas exposed above the outdoor noise levels of;

- $L_{den} = 53dBA$
- $L_{night} = 45dBA$

A summary of the number of people in dwellings and number in noise sensitive receptors (schools and hospitals) in Roscommon, which experience environmental noise from major roads, above the guide levels is summarised in Table 1. Almost 3,900 people were identified as being exposed above the L_{den} guide level and almost 3,700 people were identified as being exposed above the L_{night} guide level. Three schools were identified as being exposed above the L_{den} guide level and four schools were identified as being exposed above the L_{night} guide level, but the L_{night} is not relevant for schools as they do not operate at night. No hospital buildings were identified in the noise mapping exercise above the guide levels.

Table 1. Numbers Exposed to Noise above Guide Level

Guide Level	Number of People in Dwellings	Number of School Buildings	Number of Hospital Buildings
>53 dBA L_{den}	3,897	3	0
>45 dBA L_{night}	3,679	4	0

Harmful effects of environmental noise from road traffic need to be assessed in line with the Regulations, by means of the dose effect relations. WHO Guidelines (2018 and 1999) specify that adverse health effects of noise from road traffic can cause:

- High Annoyance (HA),
- High Sleep Disturbance (HSD) and
- Ischaemic Heart Disease (IHD).

These harmful effects are also considered in SI No. 663, which provides calculations for Relative Risk (RR) of the harmful effect and the Absolute Risk (AR) of the harmful effect.

For each Important Area i.e. noise sensitive location that comes within the L_{den} 53dBA limit value and/or L_{night} 45dBA limit value, the population exposure at that noise sensitive location was assessed and also the harmful effects. This data was then used to determine Most Important Areas (MIAs), which 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, as discussed in the following section.

9. Identification of Areas to be Subjected to Noise Management Activities

9.1 Approach to Identify IA's, MIA's and PIA's

The Regulations require that Roscommon County Council as the Action Planning Authority address “priorities” and “the most important area or areas” with a view to identifying “measures” that will help “avoid, prevent or reduce” the “harmful effects, including annoyance, due to exposure to environmental noise”. The EPA Guidance sets out the following three-step approach to identifying priorities:

1. **Important Areas (IAs)** – these are locations exposed to environmental noise which exceed the relevant noise limit, as discussed in the previous section.
2. **Most Important Areas (MIAs)** – these locations are a sub-set of Important Areas where the health effects are highest, typically through a product of noise exposure levels and the number of people highly annoyed; and
3. **Priority Important Areas (PIAs)** – between 5 and 10 Most Important Areas or group of similarly affected Most Important Areas, identified, through a prioritisation process, as those which will be evaluated and addressed during the implementation of the NAP.

Identified Important Areas have been used to inform the identification of Most Important Areas and this process was done by external consultants for Local Authorities outside agglomerations. The process of identifying MIAs 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 guide levels.

The assignment of population to the calculated noise levels is set out within Annex II of the END (CNOSSOS-EU), where harmful effects due to noise are statistically assessed at geographically specific locations. The EPA Guidance sets out the process for using the calculated number of people Highly Annoyed to generate a gridded “heatmap” of values which represent (approximately) the number of people 100m². Using the heatmap, the areas of higher concentrations of people highly annoyed (HA) are identified and delineated as a digital polygon. The EPA Guidance sets a density criterion of 15 or more people per 100m² as being the most appropriate for Most Important Areas in main urban areas, with lower criteria of 10 and 7.5 people per 100m² appropriate on the edge of urban or in rural areas.

It is crucial to emphasise that the approach to identifying Most Important Areas is of a statistical nature and pertains to the entire population encompassed by the noise maps. It should not be construed as a precise assessment of harmful effects for specific buildings, nor are the extents of the Most Important Areas definitive.

Instead, they are indicative in identifying areas with a relatively high number of people who may be potentially highly annoyed due to noise.

A summary of the Most Important Areas identified along the major routes using the EPA Guidance density criteria (Highly Annoyed Threshold) of 7.5, 10 and 15 or more people per 100m² is provided in Table 2 (Note numbers rounded to the nearest whole number). The MIA calculation process identified 8 MIAs along major routes in the County.

Table 2. Most Important Area (MIA) Summary

Highly Annoyed (HA) Threshold/100m ²	Number of MIA's near Major Roads	Number of People in MIA			
		Total	Highly Annoyed (HA)	Highly Sleep Disturbed (HSD)	Ischaemic Heart Disease (IHD)
7.5	5	493	92	28	0
10	3	255	49	16	0
15	1	40	6	2	0

The next stage in the process is to rank these and to determine 5-10 Priority Important Area (PIA), where there would be a commitment to undertake an assessment of noise mitigation measures within the life cycle of the NAP.

The EPA Guidance requires consideration be given to the following aspects, where information is available:

- Number of people exposed to noise, and the harmful effects
- Level of noise exposure
- Potential for grouping adjacent Most Important Areas into a larger Priority Important Area
- 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

To inform the decision on the selection of Priority Important Areas, consistent with the requirements of the EPA Guidance, associated statistical information has been developed for each Most Important Area, including:

- Noise source identifying the Most Important Area, i.e., railways or roads
- Area (m²)
- Total population

- Number of people highly annoyed (HA)
- Number of people highly sleep disturbed (HSD)
- Population increased risk of ischaemic heart disease (IHD)
- Number of dwellings
- Population noise exposure above END threshold values for road traffic noise exposure in 5 dB bands (L_{den} 55 - 75 dB, L_{night} 50 - 70 dB)

A list of five Priority Important Areas was provided by external consultant, based on the criteria above and summarised in Table 3. Figures in Table 3 are based on those Most Important Areas with the highest total population, generated using the EPA Guidance density criterion ('HA Threshold') 15/10/7.5 or more people per 100m².

Table 3. Indicative List of Priority Important Areas (PIA)

PIA	Location	Total Population in PIA	MIA Criterion - people HA/100m ²	Area m ²	No. of People		
					HA	HSD	IHD
RNC_1	St. Comans Park	40.14	15	4200	6.2	1.99	0.01
RNC_2	Cushla Lawns	23.7	10	3000	3.27	0.87	0
RNC_3	Danesfort	22.9	10	3100	4.4	1.44	0
RNC_4	Cluainbroc	51.6	7.5	6800	7.09	2.18	0.01
RNC_5	Manor Valley	34.23	7.5	2900	6.23	1.54	0.01

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

All PIAs are located along a 1.2km stretch along the N6/M6 outside Athlone at Junction 13 and also parts of the R362 and R446 leading South from J13. Therefore, for the purposes of this Noise Action Plan, as the five areas identified are in close proximity to each other, they will be examined as one PIA as shown in Table 4.

Table 4: Approved Priority Important Area (PIA) 2024-2028

Approved PIA (2024-2028)	MIA	Location
PIA_1	RNC_1	St. Comans Park
	RNC_2	Cushla Lawns
	RNC_3	Danesfort & R362
	RNC_4	Cluainbroc & R362
	RNC_5	Manor Valley & R446

For the PIA identified in Table 4 (also shown in Appendix C), Roscommon County Council give a commitment to undertake an assessment of noise mitigation measures for this area, within the life cycle of the NAP.

It is accepted that the methodology used for selection of MIAs and PIAs may result in locations with similar or even higher noise exposure levels and lower levels of population density not being identified as MIAs. However, Roscommon County Council may consider examining locations along major routes and including them as PIAs under the lifetime of this NAP, in cases where complaints relating to road traffic noise emanated prior to the adoption of this NAP.

In addition, noise from the new N5 Ballaghaderreen to Scramoge Road Project will be considered at planning and development stages of this project for any new sensitive locations that may be impacted by the new by-pass routes.

9.2 Approach to Identify Quiet Areas

A Quiet Area is an area where environmental noise levels are deemed to be good. An area where the exposure to noise is below the $L_{den} < 53\text{dBA}$ and $L_{night} < 45\text{dBA}$ should be preserved.

Under the Regulations there is a requirement to delimit Quiet Areas within agglomerations. However, as there are no agglomerations (population >100,000) within County Roscommon, this is not relevant. The Regulations also require to delimit quiet areas in the open country. The requirement for such an area is that it is “undisturbed by noise from traffic, industry or recreational activities”. The strategic noise mapping undertaken by TII for this Noise Action Plan is not suitable to delimit quiet areas in open countryside as it did not take into account industrial noise or noise from recreational activities and it was undertaken near major noise sources (major roads) and not at locations which will be undisturbed by them.

The EPA Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) outline how to undertake Quiet Area Screening of a Development Location, according to the Agency publication Environmental Quality Objectives - Noise in Quiet Areas. This Guidance Note only applies to Scheduled Activities that require a licence with the EPA and not to other potential noise sources which could impact upon a currently quiet area in open countryside. However, it can be used as a guideline for this purpose, in the absence of other Guidelines on this issue.

Quiet Area Screening involves determining of the following criteria are satisfied:

- o At least 3km from urban areas with a population >1,000 people;
- o At least 10km from any urban areas with a population >5,000 people;
- o At least 15km from any urban areas with a population >10,000 people;

- o At least 3km from any local industry;
- o At least 10km from any major industry centre;
- o At least 5km from any National Primary Route, and
- o At least 7.5km from any Motorway or Dual Carriageway.

If the site does not meet these criteria it is not considered to be a quiet area as per the Agency definition.

Based in the current TII noise maps, there is not sufficient information on the acoustic environment to show quiet areas in open country, to enable specific areas to be delimited for approval. The EPA Quiet Area Screening Method could be used by Roscommon County Council Planning Department for future developments. Any proposals to designate Quiet Areas would be discussed with the EPA for approval.

10. Mitigation and Protection Measures

10.1 Investigation of PIA

The Priority Important Area (PIA1) will be investigated over the timeframe of this NAP (2024-2028).

This assessment will include:

- Noise monitoring,
- Noise modelling calculations, and
- Cost-benefit analysis

10.2 Investigation of Candidate Quiet Areas

Strategic noise mapping undertaken for this Noise Action Plan does not provide a resource which may be extensively used to help identify quiet areas in open country. This is partially due to the nature of the assessed noise sources, which do not include recreational activities, and partially due to the area of coverage of the strategic noise mapping, which is near to major sources, and therefore they are not locations which will be undisturbed by them.

The EPA Quiet Area Screening Method could be used by Roscommon County Council Planning Department for future developments. Any proposals to designate Quiet Areas would be discussed with the EPA for approval.

10.3 Known Future Developments within the Action Planning Area

The measures available for the protection of future developments from exposure to noise from major roads include acoustical planning measures in land use zoning and development layout, design and specifications, such as:

- Locating residential developments away from major roads
- Using the lands around major roads feeding into towns for commercial/industrial development
- Incorporating noise issues into the design of housing developments by locating the access roads and green areas on the major road side of the development, thus increasing the separation distance between the houses and the roads
- Using a higher standard of insulation for new dwellings adjacent to major roads and also using higher standards of insulation for the exposed façades of new dwellings

These are acoustical planning measures although not all are within the control of the planning authority.

The N5 Ballaghaderreen to Scramoge Road Project will provide a bypass for Frenchpark, Bellanagare, Tulsk and Strokestown. These works will divert a large volume of traffic (hence noise) away from the towns.

The N4 Carrick-on-Shannon to Dromod Project will provide a bypass Carrick-on-Shannon, including Cortober in Co. Roscommon. This project will significantly reduce traffic volumes (hence traffic noise) in the town for residential areas.

Roscommon County Council will engage with TII Network Management to explore solutions if applicable for the PIA during the lifetime of the 2024-2028 Noise Action Plan.

10.4 Confirmation of Noise Exposure Measures

For the PIA identified under this Noise Action Plan, Roscommon County Council will:

- Undertake ambient noise monitoring at representative locations within the Priority Important Area; and
- Review and refine the noise model, where necessary, against the local situation at the Priority Important Area.

Ambient noise monitoring will be undertaken at an appropriate number of locations, based on the size of the Priority Important Area and the noise source. 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.

Measurement results will be reviewed and any spurious noise events, periods of rain, or excessive wind speeds, removed from the average levels. The long-term average L_{day} , $L_{evening}$, L_{night} and L_{den} , measured levels will then be compared with calculated results. If possible, road traffic flow data will be captured near the measurement locations during the survey period to validate the noise model.

If necessary after noise monitoring is complete, Roscommon County Council will review the noise model for the PIA, based upon information captured through field survey work, with particular attention being paid to aspects such as:

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

Noise modelling results are 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. Once a noise model is validated, it may be considered as the existing situation for the purpose of the Cost-Benefit Analysis (CBA). The update of current noise modelling to inform the cost benefit analysis of any future mitigation measures planned for the PIA will require co-operation from TII to coordinate information from the original model, to allow direct and realistic comparisons between model runs, if possible.

Roscommon County Council will endeavour to ensure that sufficient traffic count data is collected on a continuous basis and will liaise with adjoining Local Authorities and TII to ensure that adequate expertise is available between the authorities to enable the next phase of noise mapping to be carried out. This expertise may be sourced within the local and regional authority or via TII or external consultants.

10.5 Possible Mitigation Measures

Once the extent of the existing noise exposure levels have been confirmed for the PIA, potential noise mitigations measures will 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.

Noise mitigation measures can be implemented on or directly alongside the sources, in this case the road (source control), others may be in the region between the roads and the dwellings (pathway control) and others may be at the noise sensitive locations (receiver control).

Table 5 provides an indication of the types of mitigation measures which may be relevant to consider for noise sensitive locations exposed to noise from road sources.

The Draft EPA guidance provides relevant documents regarding road noise mitigation and these will be reviewed by the council when considering possible mitigation measures for the PIA. For road traffic noise, the most cost-effective scenarios may comprise a combination of complementary noise mitigation measures. For example, in the context of the ZPAP target of a 30% reduction in the number of people chronically exposed to environmental noise by 2030, the following measures were shown to offer the most cost-effective noise mitigation measures for 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.

Cost-benefit analysis will be 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.

Measures and options for noise control and costs for the PIA outlined in this NAP will be evaluated over the lifetime of this NAP and a shortlist of practical noise mitigation measures for the PIA will be compiled. It is a statutory requirement that Roscommon County Council liaise and consult with TII when selecting feasible noise mitigation measures for detailed assessment.

Table 5. Road Traffic Noise Mitigation Measures

Source Control	<p>Technical Measures</p> <ul style="list-style-type: none"> ○ Re-surface roads with 10mm stone mastic asphalt (SMA) ○ Re-surface roads with low noise road surfaces, or thin surface treatments ○ Road surface maintenance <p>Traffic Planning</p> <ul style="list-style-type: none"> ○ Vehicle speed management, or speed limit reductions ○ Speed bumps to reduce speed and deter vehicles from travelling on route ○ Traffic management – looking at routes and HGVs to reduce traffic volume ○ Bans on HGV's/trucks ○ Redesigning junctions - roundabouts may create a steadier driving pattern ○ Co-ordinated signalisation at intersections for smoother driving <p>Land Use Planning</p> <ul style="list-style-type: none"> ○ New road construction (bypass) ○ Car-free zones – redesign of street space ○ Quiet Façade i.e. ensure dwelling have at least one quiet side e.g. (garden/balcony) ○ Safe cycle lanes along major routes <p>Quieter Sources</p> <ul style="list-style-type: none"> ○ Quieter tyres ○ Specific lower vehicle sound limits ○ Increased electrification of the road vehicle fleet ○ Low-noise waste collection vehicles ○ Low-noise night time delivery ○ Check on noisy vehicles <p>Local Organisational Measures</p> <ul style="list-style-type: none"> ○ Liaise with residents in PIA's regarding road traffic noise perceptions ○ Awareness raising campaign regarding driver behaviour in PIA's ○ Increased signage in PIA's relating to traffic noise or traffic speed <p>National Measures</p> <ul style="list-style-type: none"> ○ Regulatory measures to require the selection of quieter sources ○ Increase in EV charging stations ○ Economic measures and incentives to support the selection of quieter sources ○ Increase in public transport fleet ○ Enforcement of speed limits
Pathway Control	<p>Reduction of Sound Transmission</p> <ul style="list-style-type: none"> ○ Earthworks, such as earth bunds, mounds or cuttings ○ Roadside noise barriers and screening measures ○ Coverage, including baffles or tunnels
Receiver Location Control	<p>Building Control Measures</p> <ul style="list-style-type: none"> ○ Dwelling insulation, either new build or retrofit ○ Acoustic windows or secondary glazing ○ Acoustics ventilation, passive or active ○ Chimney caps and dampers ○ Specify building construction details for new developments exposed to environmental noise

10.6 Assessment of Noise Reduction Effects

At present there is no recommended Irish methodology for the assessment of the monetised benefits to health of noise mitigation. EPA Guidelines recommended to use the UK WebTAG workbooks - *Department for Transport (UK), Transport Analysis Guidance (TAG), TAG: environmental impacts worksheets, Noise workbook, November 2023*, with adjustments to suit Irish settings, which 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. The assessment requires noise calculation results for all the dwellings within 600m of the scheme, for the opening year, and forecast year (typically 15 years after opening), both with and without the proposed noise mitigation measures.

The most cost-effective noise mitigation measures, or combination of measures will be proposed to the relevant departments, agencies and fund holders to be incorporated within their future work plans. Where funding is available and approved, the recommended noise mitigation measures will be implemented. After implementation, post-completion noise measurement surveys will be conducted to confirm the predicted noise reduction.

The objective of this NAP is to reduce the number of people affected (annoyed, sleep disturbed, or other) by road traffic noise. If feasible noise mitigation measures are implemented over the lifetime of the NAP, the health effects will be assessed and reported in the annual NAP progress report and in the Noise Action Plan when next revised. It is anticipated that the next round of national noise modelling will provide the updated data necessary to assess any improvements gained from mitigation measures introduced at the PIA during the lifetime of this Noise Action Plan.

11. Implementation Plan

11.1 Roles and Responsibilities

Roscommon County Council is the designated Action Planning Authority for this Noise Action Plan and will oversee the implementation of the plan.

The implementation of the Planning and licensing regulations is a matter for the appropriate statutory body including Roscommon County Council, EPA and An Bord Pleanála.

TII is the key external stakeholder during the implementation of this Action Plan. Review of the strategic noise maps will be carried out in consultation with TII and the EPA. TII also allocates and administers funding for the construction, maintenance and improvement of national roads. Non-national roads are solely the responsibility of the local authority and TII is not responsible for their upkeep.

11.2 Targets and Objectives

This 4-year Noise Action Plan is intended to manage noise issues from major roads, avoiding, preventing or reducing on a prioritised basis the harmful effects of environmental noise based on a communal approach within the European Community.

11.3 Programme of Works

All measures identified in the programme of works are subject to funding and resources and cost benefit analysis.

2025

- Conduct noise monitoring and validate noise model for PIA1 – PIA 5
- Collect traffic data for noise monitoring period also if possible
- Ensure noise is adequately considered for new areas that may be impacted by noise from N5 Ballaghaderreen to Scramoge Road Project
- Review potential mitigation measures PIA1 – PIA 5
- Provide NAP annual report to EPA

2026

- Ensure noise is adequately considered for new areas that may be impacted by noise from N5 Ballaghaderreen to Scramoge Road Project
- Conduct cost benefit analysis where necessary for noise mitigation measures for PIA1 – PIA 5
- Provide NAP annual report to EPA

2027

- If applicable seek approval from TII to implement mitigation measures, subject to funding.
- Provide NAP annual report to EPA

2028

- Participate in review process for R5 NAP

11.4 Evaluation, Review and Corrective Action Programmes

A review of this Noise Action Plan will be carried out by Roscommon County Council to assess progress against the programme of works. An interim summary report will be prepared annually. This report will highlight progress in implementation of Action Plan measures and will also identify areas where corrective action is required or where the proposed measures must be modified for reasons unforeseen at present.

There are a number of risk factors associated with the delivery of this Noise Action Plan, particularly financial risks and resource risks. Some critical elements of the Action Plan are outside the control of Roscommon County Council and will require the approval of other statutory bodies. Also, the financial resources required to deliver the programme has yet to be determined and the delivery of the Noise Action Plan will be contingent on adequate funding being available. In view of these uncertainties, it is important that the programme is subject to an ongoing review so as to alert all relevant parties to any change in circumstances.

In 2028 the Council will carry out a review of the program of works implemented under this Action Plan. Progress and results will be evaluated using information gathered through local assessment of environmental noise exposure. This will include “before and after” evaluations of any noise mitigation measures. A review of future noise maps (noise modelling for Round 5) will also give an indication of the change in environmental noise levels and the numbers of people exposed.

12. Summary and Conclusions

The European Communities (Environmental Noise) Regulations 2018, S.I. No. 549 of 2018 and the European Communities (Environmental Noise) (Amendment) Regulations 2021 (S.I. No. 663/2021), which gives effect to the EU Environmental Noise Directive, requires that Noise Action Planning Authorities prepare Noise Action Plans for their functional areas in respect of specified environmental noise sources. Noise Action Plans must be based upon the results of strategic noise mapping carried out by the designated noise mapping body.

In County Roscommon traffic noise on major roads in excess of 3 million vehicles per year applies to this Noise Action Plan. This includes the N6/M6 (20km) and 15km on the N61 between the M6 and Lecarrow and 0.3km of the N4 at Cortober near Carrick-on-Shannon. Strategic noise mapping in respect of those roads was carried out by Transport Infrastructure Ireland (TII) in 2021.

This Noise Action Plan, which is based on the results of these noise maps, was prepared by Roscommon County Council. The Noise Action Plan describes the action planning area and the responsible authorities. It discusses existing noise management legislation and guidance. The plan is relevant to Important Areas (IAs) that are exposed above the outdoor noise levels of L_{den} 53dBA and/or L_{night} 45dBA, above which adverse health effects and adverse effects on sleep may occur. Harmful health effects of environmental noise are measured by the number of people Highly Annoyed (HA), number of people Highly Sleep Disturbed (HSD) and instances of Ischemic Heart Disease (IHD).

From the list of Important Areas (IAs) derived from the Strategic Noise Maps, five Most Important Areas (MIAs) were provided to Roscommon County Council, based on locations with the highest density of people. The five locations are in close proximity to each other along the N6/M6 outside Athlone, approximately 0.6km either side of Junction 13. Therefore, these locations will be considered as one Priority Important Area (PIA1), for which Roscommon County Council give a commitment to undertake an assessment of noise mitigation measures, within the life cycle of the NAP. The PIA1 encompasses:

- St. Comans Park
- Cushla Lawns
- Danesfort & the R362
- Cluainbroc & the R362
- Manor Valley & the R446

Potential mitigation options for road traffic noise are included in the plan and once the noise level in the PIA has been confirmed by monitoring to be as predicted in the noise model, a cost benefit analysis for potential mitigation measures will be undertaken.

The Noise Action Plan covers a four-year period beginning in 2024 and will be reviewed every five years thereafter in 2028. The Public Consultation period ran

from Friday 8th November 2024 to Friday 20th December 2024, two submissions were received.

The following key actions are proposed over the lifetime of the NAP;

- Conduct noise monitoring and validate noise model for the PIA
- Collect traffic data for noise monitoring period also if possible
- Review potential mitigation measures for the PIA and cost benefit analysis
- If applicable seek funding and approval to implement mitigation measures.

All proposals for development/works under the Action Plan will be required to demonstrate compliance with the requirements of environmental and planning legislation and planning and licensing processes, including existing provisions of relevant land use plan(s) and policy documents such as the National Planning Framework and the Regional Spatial, the Economic Strategy for the Northern and Western Region and Roscommon County Development Plan 2022-2027.

A pre-screening check on this Noise Action Plan was carried out in line with Strategic Environmental Assessment (SEA) Directive which requires that assessment of the effects of certain plans and programmes on the environment be carried out. The SEA Screening concluded this plan does not satisfy the conditions for mandatory SEA under S.I. 435/2004, so does not require further SEA. A Statement of Screening for Appropriate Assessment (AA) was also conducted, which concluded that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European sites. Further Screening for Appropriate Assessment (AA) will be conducted for any actions required under the Noise Action Plan to determine whether any project required over the 4-year period of the of the Noise Action Plan, 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.

Appendix A: Glossary of Acoustic and Technical Terms

Term	Definition
AA	Appropriate Assessment
Absolute quiet area	Where environmental noise levels are low and aim to be preserved.
Agglomeration	Major Continuous Urban Area as set out within the Regulations
AMI	Acute Myocardial Infraction
ANCA	Airport Noise Competent Authority
APA	Action Planning Authority
Attribute Data	A trait, quality, or property describing a geographical feature, e.g. vehicle flow or building height
CBA	Cost Benefit Analysis
CHD	Coronary Heart Disease
CNG	WHO Community Noise Guidelines 1999
CNOSSOS-EU	Common Noise Assessment Methods for Europe, Directive 996/2015
CQA	Candidate Quiet Area
Data	Data comprises information required to generate the outputs specified, and the results specified
dB	Decibel
DECC	Department
EC	European Commission
ECAC	European Civil Aviation Conference
EEA	European Environment Agency
END	Environmental Noise Directive (2002/49/EC)
ENG	WHO Environmental Noise Guidelines for the European Region 2018
Absolute Risk (AR)	<p>SI 663/2021 gives a calculation for the absolute risk (AR) of a harmful effect of Environmental noise as:</p> $AR = \left(\frac{\text{Occurrence of the harmful effect in a population exposed to a specific level of environmental noise}}{\text{to a specific level of environmental noise}} \right) \quad (\text{Formula 2})$
EU	European Union
GIS	Geographic Information System

Term	Definition
HA	High Annoyance; 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
IA	Important Areas
ICAO	International Civil Aviation Organisation
IED	Industrial Emissions Directive 2010/75/EU on Industrial Emissions (Integrated Pollution Prevention and Control)
ISO	International Standards Organisation
LA	Local Authority
Metadata	Descriptive information summarising data
MIA	Most Important Areas
NAO	Noise Abatement Object
NAP	Noise Action Plan
NNG	WHO Night Noise Guidelines for Europe 2009
NMB	Noise Mapping Body
Noise Bands	<p>Areas lying between contours of the following levels (dB):</p> <p>Lden <55, 55 – 59, 60 – 64, 65 – 69, 70 – 74, ≥75</p> <p>Ld <55, 55 – 59, 60 – 64, 65 – 69, 70 – 74, ≥75</p> <p>Le <55, 55 – 59, 60 – 64, 65 – 69, 70 – 74, ≥75</p> <p>Ln <45, 45-49, 50 – 54, 55 – 59, 60 – 64, 65 – 69, ≥70</p> <p>Notes:</p> <p>It is recommended that class boundaries be at .00, e.g. 55 to 59 is actually 55.00 to 59.99</p> <p>The assessment and reporting of the 45 – 49 dB band for L_{night} is optional under the Regulations</p>
Noise Levels	Free-field values of Lden, Ld, Le, Ln, and L _{Aeq,16h} at a height of 4m above local ground level
Noise Level - Ld - Daytime	Ld (or L _{day}) = L _{Aeq,12h} (07:00 to 19:00)

Term	Definition
Noise Level - Le - Evening	L_e (or L_{evening}) = $L_{Aeq,4h}$ (19:00 to 23:00)
Noise Level - Ln - Night	L_n (or L_{night}) = $L_{Aeq,8h}$ (23:00 to 07:00)
Noise Level - Lden – 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 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
NSAI	National Standards Authority of Ireland
NTA	National Transport Agency
Relative Risk (RR)	SI 663/2021 gives a calculation for the relative risk (RR) of a harmful effect of Environmental noise as: $RR = \left(\frac{\text{Probability of occurrence of the harmful effect in a population exposed to a specific level of environmental noise}}{\text{Probability of occurrence of the harmful effect in a population non exposed to environmental noise}} \right)$ (Formula 1)
OCQA	Other Candidate Quiet Area
ORM	Office of Radiation Protection and Environmental Monitoring
OSI	Ordnance Survey for Ireland (now under Tailte Éireann)
Other relevant criteria	As set out in Section (3)(a) of S.I. No. 549/2018
Output Data	The noise outputs generated by the noise model
PCQA	Potential Candidate Quiet Area
PIA	Priority Important Areas

Term	Definition
Processing Data	Any form of manipulation, correction, adjustment factoring, or other adjustment of data to make it fit for purpose. (Includes operations sometimes referred to as 'cleaning' of data)
QA	Quiet Area
Raster Heat Map	A raster heat map shows the relative density of values at points using a colour scheme to indicate density value. In this case the value used is the number of people highly annoyed per 100m ² .
Relative Quiet Area	Where environmental noise levels are relatively low in comparison to levels of noise exposure within nearby residential areas
RESPF	Renewable Electricity Spatial Policy Framework
RMO	Road Management Office
RSA	Road Safety Authority
SEA	Strategic Environmental Assessment
SMA	Stone mastic asphalt
SNM	Strategic Noise Map
Spatial (Input) Data	Information about the location, shape, and relationships among geographic features, for example road centre lines and buildings.
TAG	English Department for Transport, Transport Analysis Guidance
TII	Transport Infrastructure Ireland
UNECE	United Nations Economic Commission for Europe
WHO	World Health Organisation
ZPAP	Zero Pollution Action Plan

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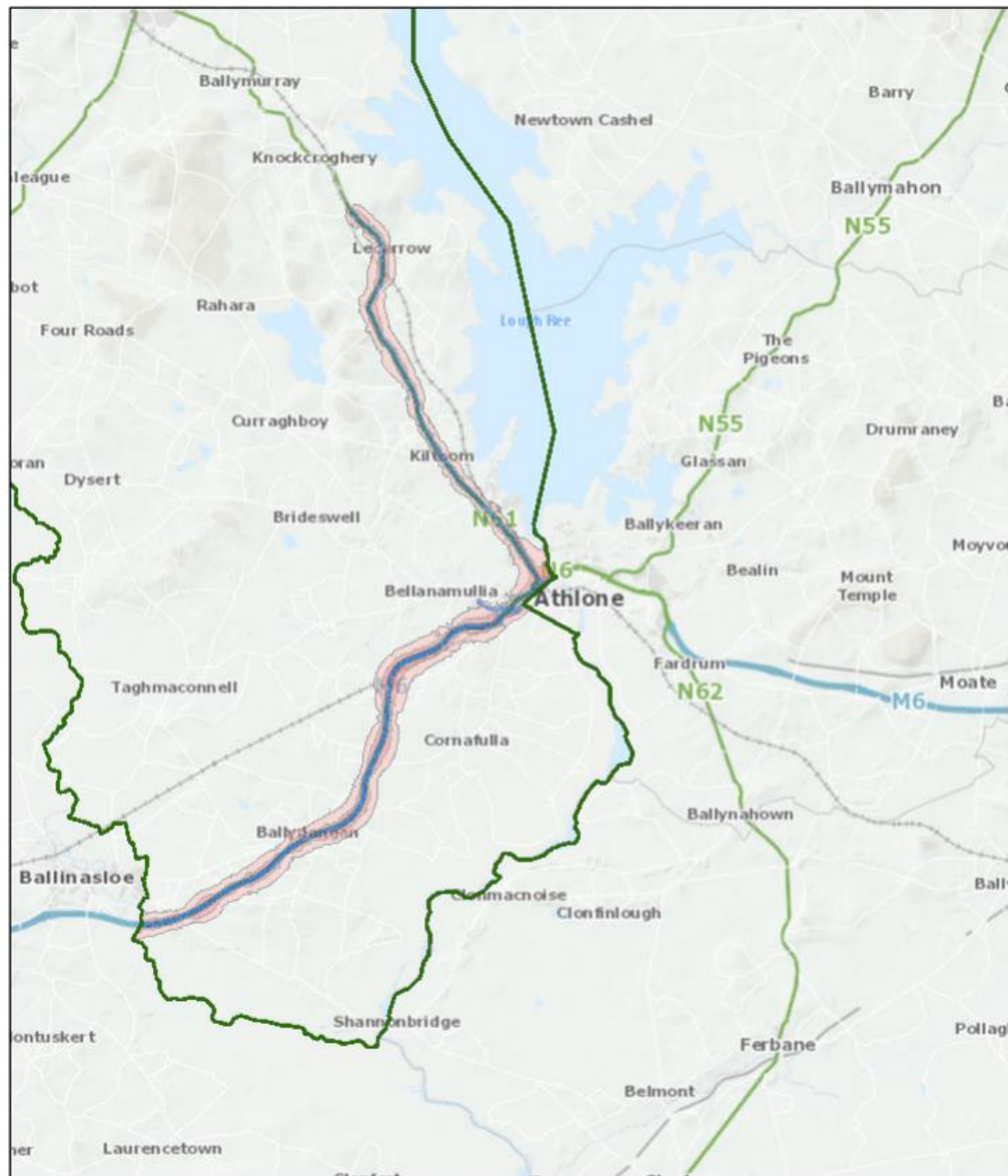
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Appendix C: Strategic Noise Maps

Athlone Area Noise Contours - Day



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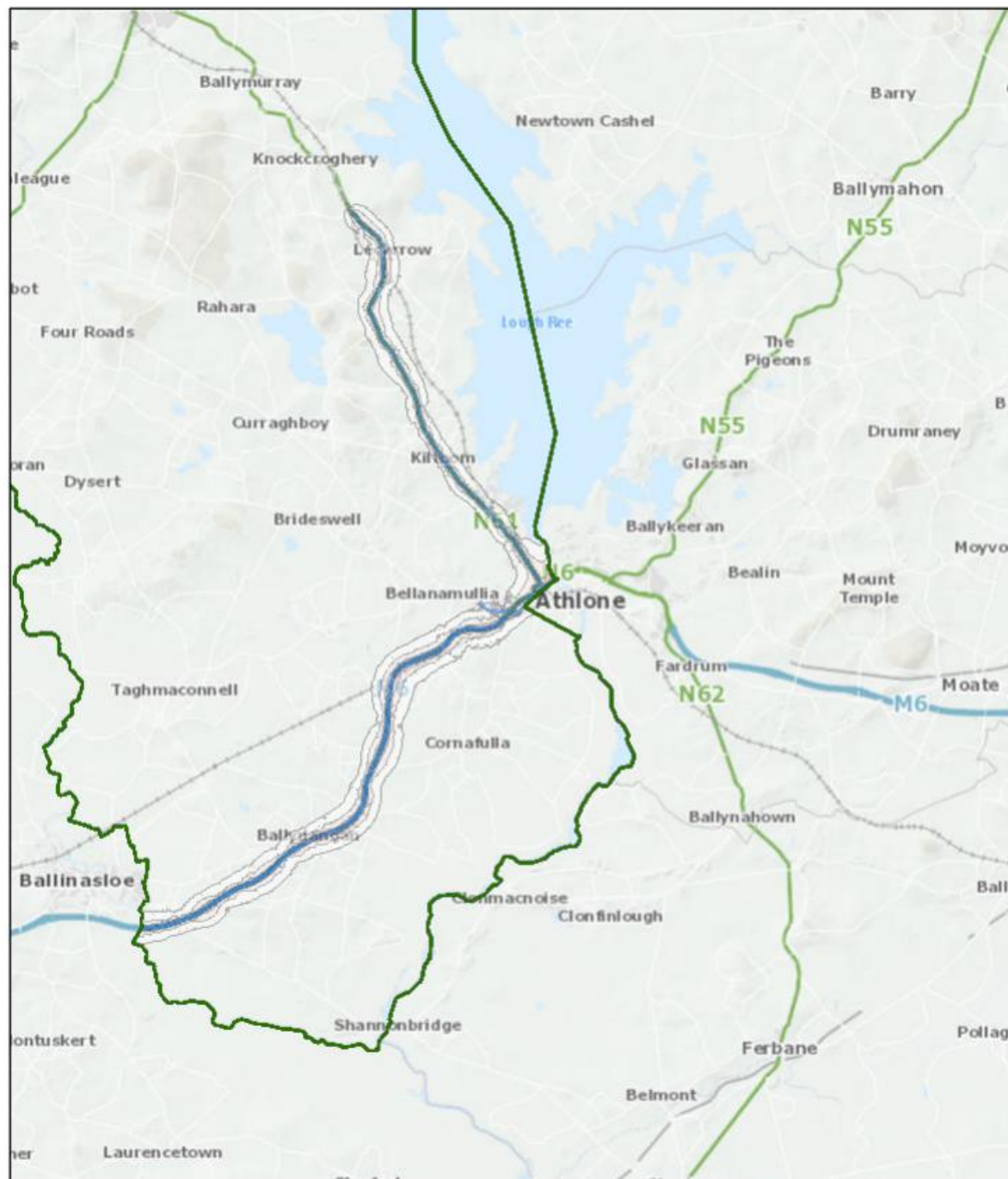
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- Major Roads Noise Contours - Day
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- Lden range from 60 to 64 dB
- Lden range from 65 to 69 dB
- Lden range from 70 to 74 dB
- Lden value equal or greater than 75 dB
- Major Roads Source

1:200,000
0 1.75 3.5 7 mi
0 2.75 5.5 11 km

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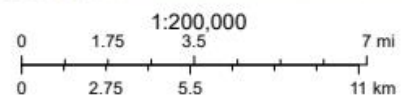
Roscommon County Council
Ordnance Survey Ireland | Roscommon County Council

Athlone Area Noise Contours - Night



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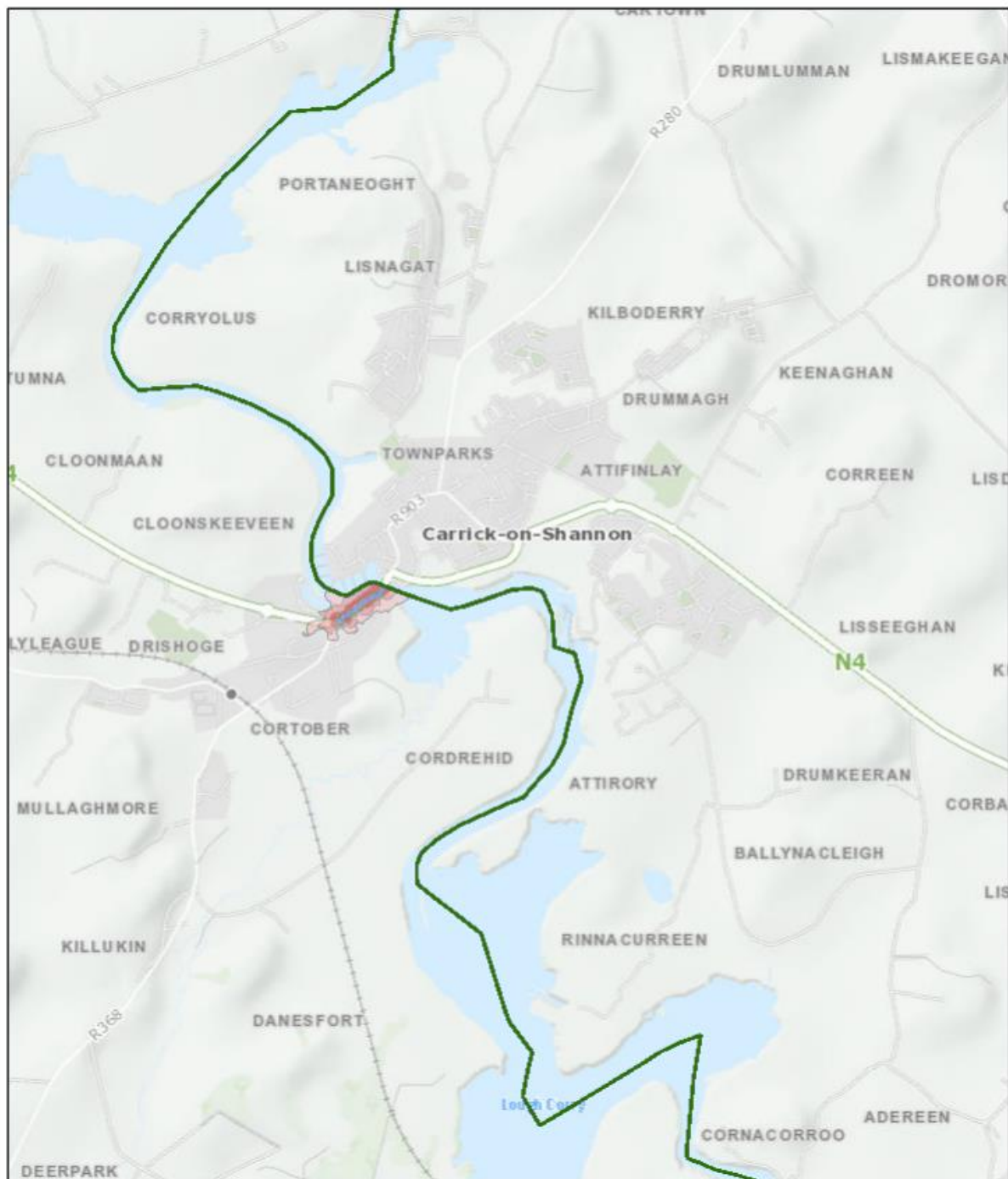
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| County Boundary | Lnight range from 60 to 64 dB |
| Major Roads Noise Contours - Night | Lnight range from 65 to 69 dB |
| Lnight range from 45 to 49 dB | Lden value equal or greater than 70 dB |
| Lnight range from 50 to 54 dB | Major Roads Source |
| Lnight range from 55 to 59 dB | |



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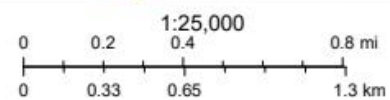
Roscommon County Council
Ordnance Survey Ireland | Roscommon County Council

Cortober Area Noise Contours - Day



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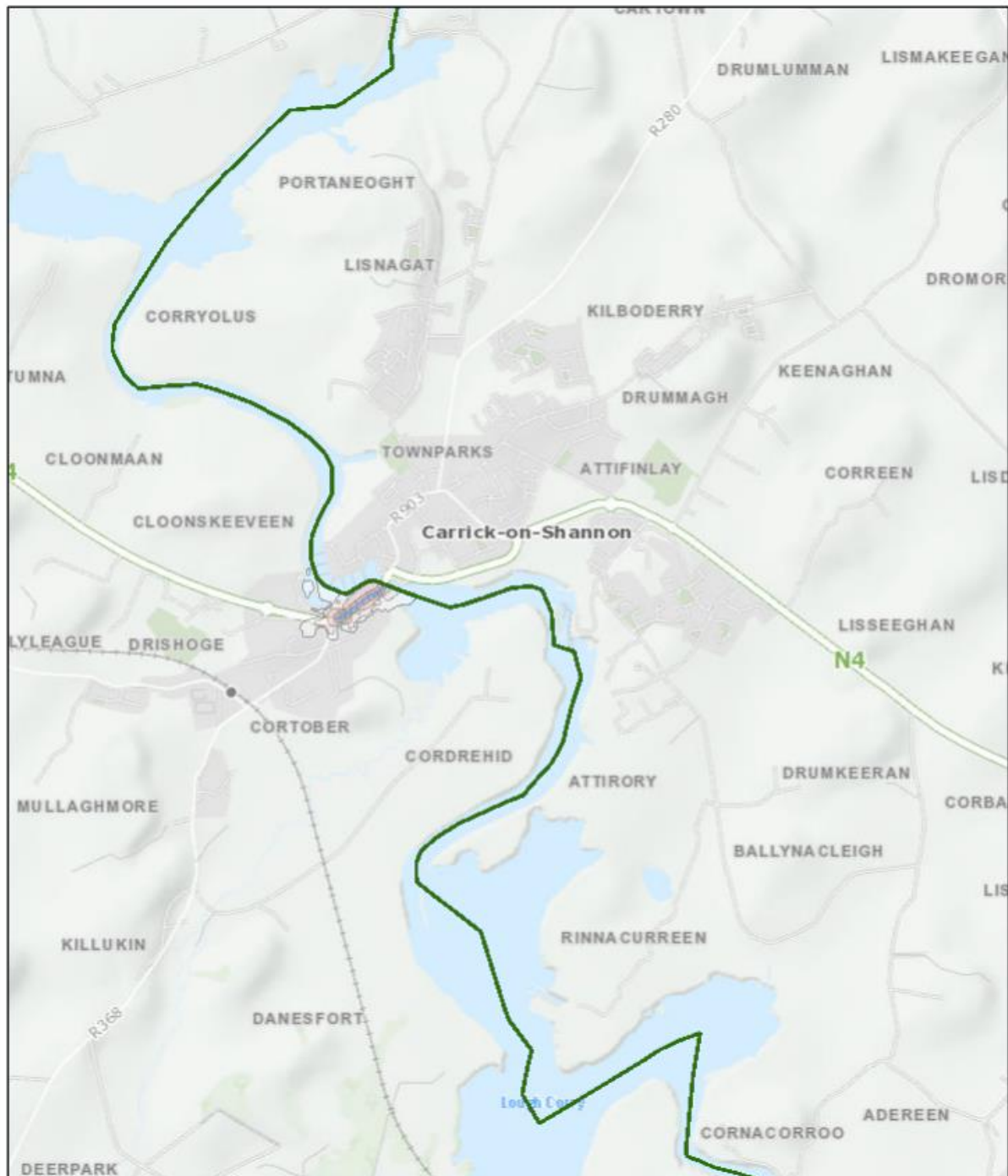
- County Boundary
- Lden range from 65 to 69 dB
- Lden range from 70 to 74 dB
- Lden value equal or greater than 75 dB
- Lden range from 55 to 59 dB
- Lden range from 60 to 64 dB
- Major Roads Source



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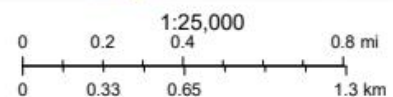
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Cortober Area Noise Contours - Night



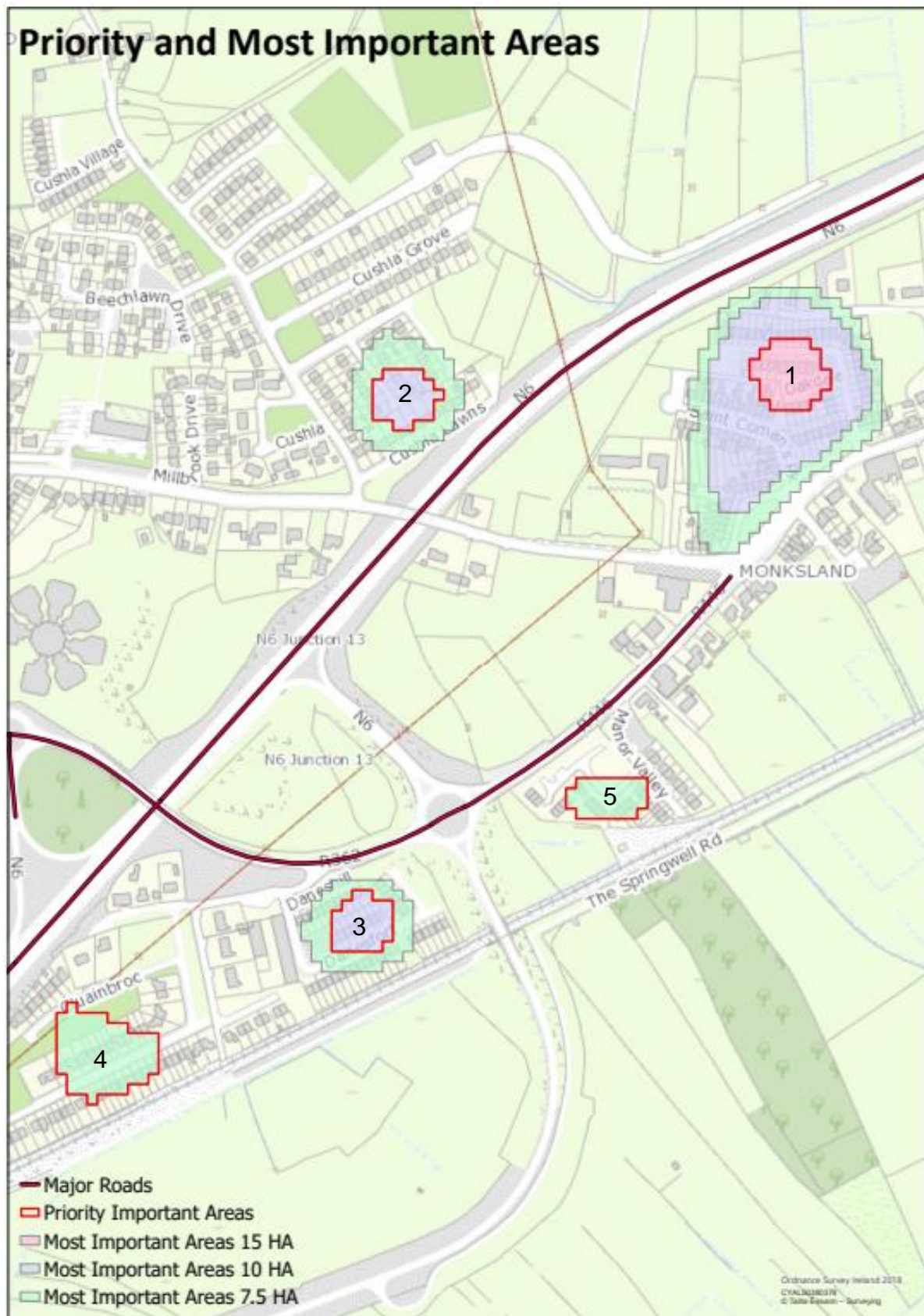
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| Major Roads Noise Contours - Night | Lnight range from 65 to 69 dB |
| Lnight range from 45 to 49 dB | Lden value equal or greater than 70 dB |
| Lnight range from 50 to 54 dB | Major Roads Source |
| Lnight range from 55 to 59 dB | |



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Appendix D: Public Consultation



Noise Action Planning Authority
Environmental Department
Roscommon County Council
Aras an Chontae
Roscommon

20th December 2024

RE: Roscommon County Council Draft Noise Action Plan 2024 – 2028

Dear Sir or Madam,

I refer to recent correspondence providing Transport Infrastructure Ireland (TII) with a copy of the Roscommon County Council Draft Noise Action Plan 2024 – 2028 for consultation.

Please find our comments below.

1.3 Scope

TII is referred to 'the designated Noise Mapping body.'. For the avoidance of confusion, it is recommended that the wording is changed from 'Noise Mapping body responsible for making and approving strategic noise maps for major roads designated as national roads' to 'TII is a designated noise mapping body for the development of strategic noise maps for all major national roads carrying in excess of 3 million vehicles a year.'

4.1.4 TII Guidance

There is no published statement that the guide levels of 53dB Lden and 45dB Lnight will supersede the TII 2004 60dB Lden guide level. The 60 dB Lden continues to be the guide level for road developments. Please delete the last three lines of the first paragraph of 4.1.4.

The TII standards document is now scheduled for Q4 2025.

12 Summary and Conclusions

It is stated that 'Noise Action Plans must be based upon the results of strategic noise mapping carried out by the designated noise mapping body, TII'. In this instance, TII alone has carried out work above and beyond its responsibility and remit. However, TII is not the only designated noise

mapping body and it is considered that this wording should be amended to by removing TII from the sentence so that it reads 'Noise Action Plans must be based upon the results of strategic noise mapping carried out by the designated noise mapping body'.

If you have any queries in relation to our comments above, please do not hesitate to contact me.

Yours faithfully,

Mark Evans

Senior Engineer (Environment)

Environmental Policy and Compliance Section

Transport Infrastructure Ireland



Environment Department,
Roscommon County Council,
Aras an Chontae
Roscommon
Co. Roscommon
F42 VR98

11th December 2024

RE: **Roscommon County Council Draft Noise Action Plan 2024-2028**

Dear Sir/Madam,

Further to the notice given to this Department of the publication of an invitation for submissions on the Roscommon County Council (**RCC**) Draft Noise Action Plan (**the draft NAP**), the following submission outlines its observations in respect of a number of policy areas for which the Department is responsible.

The Government is committed to achieving climate neutrality no later than 2050 with a 51% reduction in GHG emissions by 2030. These legally binding objectives are set out in the Climate Action and Low Carbon Development (Amendment) Act 2021. The Climate Act supports Ireland's transition to net-zero and the achievement of a climate neutral economy no later than 2050. It also establishes a legally binding framework with clear targets and commitments, to ensure the necessary structures and processes are in place to deliver national, EU and international climate goals and obligations in the near and long term. Against this background, strategies must be devised to reduce and manage climate change risks through a combination of mitigation and adaptation responses, both in the medium and longer term.

The Department of the Environment, Climate and Communications' vision of a climate neutral, sustainable, and digitally connected Ireland will be achieved by collaboratively delivering policies and programmes to empower people, communities, and businesses to continue the transition to a better quality of life for current and future generations. This vision also aligns with the UN 2030 Agenda for Sustainable Development and the 17 SDGs, which provide a plan of action for people, prosperity and planet, with the commitment to leave no-one behind.



The step change in our ambition from a low carbon to climate neutral Ireland requires strong leadership across Government and the wider public sector. This Department will drive the climate agenda by engaging with local authorities to build resilience in citizens, communities, and business to overcome climate adaptation challenges, maximising climate mitigation and adaptation opportunities and facilitating the transition to a truly Circular Economy.

This will also help to deliver on the Government's 'whole-of-society' approach for the successful implementation of the SDGs, driving in particular the achievement of Goal 7 on Affordable and Clean Energy, Goal 12 on Responsible Consumption and Production, and Goal 13 on Climate Action. Achieving the SDGs overall will require fundamental changes in many parts of Irish life, but it is also an opportunity to create a cleaner, greener, fairer economy and society.

The Department asks that you take the material outlined in the following sections into consideration when finalising the draft NAP, which align with our Statement of Strategy for the period 2024-2025, [Le Chéile 25](#), which itself sets out our vision, mission, and six strategic goals in key policy areas.

Climate Action

The [Climate Action and Low Carbon Development \(Amendment\) Act 2021 \(Climate Act 2021\)](#) amends the Climate Action and Low Carbon Development Act 2015 and sets Ireland on a legally binding path to net-zero emissions no later than 2050, and to a 51% reduction in emissions by the end of this decade. The significantly strengthened legally binding framework established under the Climate Act, with clear targets and commitments set in law, will help ensure that Ireland achieves its national, EU and international climate goals and obligations in the near and long-term. In this regard, we would draw the Council's attention to Section 15(1) of the principal Act (as amended), which requires public bodies to

“..perform its functions in a manner consistent with –

- (a) the most recent approved climate action plan,*
- (b) the most recent approved national long term climate action strategy,*
- (c) the most recent approved national adaptation framework and approved sectoral adaptation plans,*



- (d) the furtherance of the national climate objective, and*
- (e) the objective of mitigation greenhouse gas emissions and adapting to the effects of climate change in the State”*

The Climate Action Plan 2024 (CAP24) is the third annual update in the series of Ireland's Climate Action Plans. The CAP24 lays out a roadmap of actions to meet our national climate objective of pursuing and achieving the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy by 2050.

We also request the Local Authority consider the following when finalising the NAP:

- The [Long-term Strategy on Greenhouse Gas Emissions Reductions](#) which sets out indicative pathways, beyond 2030, towards achieving carbon neutrality for Ireland by 2050.
- Ireland's [National Climate Objective](#) and [European Climate Law](#).
- The new National Adaptation Framework (NAF), which was approved by Government on the 5th of June 2024 and sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts.

Having regard to same, the Local Authority should ensure that the NAP supports the implementation of and is consistent with the CAP24, national long term climate action strategy, national climate objective and NAF, in accordance with Section 15(1) of the Climate Action and Low Carbon Development Act, 2015 (as amended).

Statutory Limit Values for Noise

The Department notes that there are **no** statutory limit values for noise currently in place in Ireland. In this regard, care should be taken not to interpret references to guidance (e.g. the WHO EN Guidance 2018) in the Environmental Protection Agency's Draft Guidance Note for Noise Action Planning as setting any statutory noise limits to be used by Action Planning Authorities (**APAs**).



The Environmental Protection Agency (**the Agency**) has following consultation with noise-mapping bodies and action planning authorities established “*other relevant criteria*” to be used by APAs to identify Important Areas i.e. action plan priorities for mitigation of road- and rail traffic noise. The “*other relevant criteria*” are not intended to and should not be interpreted to indicate acceptable or unacceptable levels of noise exposure or be interpreted as indicating statutory limit values for noise.

The Department notes the following extract from the [European Communities \(Environmental Noise\) Regulations 2018](#) (**Environmental Noise Regulations 2018**):

“Action Plans

12(2)(b) Each action plan or revision of an action plan shall address priorities which

- (i) may be identified on the basis of exceedances of any relevant noise limit value [no such limit exists*] or other relevant criteria established by the Agency 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.*

12 (3) (a) Without prejudice to any relevant statutory limit value for noise, the Agency may, following consultation with noise-mapping bodies and action planning authorities, establish other relevant criteria for action plan priorities for road- traffic noise, rail-traffic noise, aircraft noise around airports and noise on industrial activity sites, to be applied in the revision of action plans and shall, no later than 18 July 2023, notify the Minister and the Minister of Transport, Sport and Tourism of such criteria.”

***Note: Text in brackets inserted for emphasis / clarity by DECC.**

In the draft NAP:

- The Executive Summary states “*Important Areas (IAs)* – are all areas exposed above the outdoor noise levels of $L_{den} = 53\text{dBA}$ and $L_{night} = 45\text{dBA}$ ” and “*For each Important Area i.e. noise sensitive location that comes within the $L_{den} 53\text{dBA}$ limit value and/or $L_{night} 45\text{dBA}$ limit value*”.



- Section 2.2 – *“Therefore this Noise Action Plan will consider Important Areas (IAs) where people are exposed to the following noise level, as determined by the strategic noise maps.*

Road Traffic Noise – Important Area (IA)

Lden - 53 dB (outside)

Ln timer - 45 dB (outside) “

- Section 6.1 – *“Noise from major sources is regarded as affecting an area if it causes either an Lden value of 53dB(A) or greater or an Ln timer value of 45dB(A) or greater anywhere within the area.” and “Properties within this band (either an Lden value of 53dB(A) or greater or an Ln timer value of 45dB(A) or greater anywhere within the area) will be seen as eligible for inclusion in the assessment stage of noise action planning.”*
- Section 6.4 – *“Properties within noise envelope band (either an Lden value of 53dB(A) or greater or an Ln timer value of 45dB(A) or greater anywhere within the area)”.*
- Section 8.2 states – *“As detailed in Section 6.1, noise from major sources is regarded as affecting an area if it causes either an Lden value of 53dB(A) or greater or an Ln timer value of 45dB(A) or greater anywhere within the area” and “**Important Areas (IAs)** are all areas exposed above the outdoor noise levels of;*

Lden = 53dBA

Ln timer = 45dBA”

and also “A summary of the number of people in dwellings and number in noise sensitive receptors (schools and hospitals) in Roscommon, which experience environmental noise from major roads, above the guide levels is summarised in Table 1. Almost 3,900 people were identified as being exposed above the Lden guide level and almost 3,700 people were identified as being exposed above the Ln timer guide level. Three schools were identified as being exposed above the Lden guide level and four schools were identified as being exposed above the Ln timer guide level, but the Ln timer is not relevant for schools as they do not operate at night. No hospital buildings were identified in the noise mapping exercise above the guide levels.” And also “For each Important Area i.e. noise sensitive location that comes within the Lden 53dBA limit value and/or Ln timer 45dBA limit value, the population exposure at that noise sensitive location was assessed and also the harmful effects.



This data was then used to determine Most Important Areas (MIAs), which 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, as discussed in the following section.”

- *Table 1. Number Exposed to Noise Levels above Guide Level*
- Section 9.1 states -
 1. **Important Areas (IAs)** – *these are locations exposed to environmental noise which exceed the relevant noise limit, as discussed in the previous section.*
- Section 12. Summary and Conclusions states – *“The plan is relevant to Important Areas (IAs) that are exposed above the outdoor noise levels of Lden 53dBA and/or Lnight 45dBA,”*

Recommendation 1:

For the purposes of compliance with the legislation, the Department requests that RCC ensures that their draft NAP does not conflate “*other relevant criteria*” for identifying action plan priorities with statutory limit values for noise.

Quiet Areas in Open Countryside and Research Needs

Under the European Communities (Environmental Noise) Regulations 2018, an APA is enabled (though not required) to identify areas to delimit as quiet areas in the open countryside.

it is widely recognised that strategic noise mapping does not provide the necessary data to help identify quiet areas in open country. Therefore, additional actions to identify quiet areas within the open countryside would need to be supported by research and an evidence base prior to being potentially delimited. Furthermore, any such proposal would be subject to consultation with the Agency and subject to the approval of the Minister. Additionally, any noise management measure in the NAP should reflect the wider policy context and complement the objectives of other national and local plans, policies and strategies, including, Section 15(1) of the Climate and Low Carbon Development Act, 2015 (as amended).



The Department notes the following extract from the Environmental Noise Regulations 2018:

“Quiet Areas

10 (2) An action planning authority may following consultation with the Agency and with the approval of the Minister delimit quiet areas in open country that are undisturbed by noise from traffic, industry or recreational activities.”

Research Reports such as the [Good practice guide on quiet areas, EEA](#) , [EPAs, Environmental Quality Objectives – Noise in Quiet Areas \(Authors Waugh, D., Durucan, et. al.\)](#), [Definition, Identification and Preservation of Urban & Rural Quiet Areas, Symonds Group](#) all recommend that a programme of further research should be instigated for the purpose of providing effective guidance in relation to the identification and management of Quiet Areas in open countryside.

The following is a list of possible research areas that would need to be considered.

- (i) Investigations into the Public Attitudes and Expectations of Quiet Areas,
- (ii) Cost benefit analysis of quiet areas
- (iii) Investigation into the health and other benefits of quiet areas.
- (iv) Investigation into the possible means of quantifying the noise climate of rural quiet area especially the means of measuring and predicting the number of noise incursions.
- (v) Development of the means for lucid and simple descriptions of the noise climate of relatively quiet areas.
- (vi) Investigations into appropriate and reliable means of mapping quiet areas

Section 9.2 of the draft NAP state “Based in the current TII noise maps, there is not sufficient information on the acoustic environment to show quiet areas in open country, to enable specific areas to be delimited for approval. The EPA Quiet Area Screening Method could be used by Roscommon County Council Planning Department for future developments. Any proposals to designate Quiet Areas would be discussed with the EPA for approval.”

**Recommendation 2:**

The Department recommends that in advance of an APA considering delimiting a quiet area in open countryside that a programme of further research focusing on the knowledge gaps above should be instigated for the purpose of providing effective guidance in relation to the identification and management of Quiet Areas in open countryside. This will help ensure an appropriate and consistent approach to any such delimitation proposals.

Please note that DECC issued **Circular EP2/24** to all Local Authorities outlining the Department's recommendations on the above two issues with regard to noise policy and legislation, for which the Department is responsible.

Conclusion

We would be grateful if Roscommon County Council would take these matters under consideration when finalising the Roscommon County Council Draft Noise Action Plan 2024-2028.

Department officials can make themselves available for a discussion on any matters raised in this submission or any other matters within the remit of the Department of the Environment, Climate and Communications, relevant to the preparation of this plan.

Please direct any requests for further consultation to PlanningNotifications@decc.gov.ie

Yours Sincerely,

Planning Advisory Division

Department of the Environment, Climate and Communications

Encl.

1. List of Recommendations



List of Recommendations

Recommendation 1:

For the purposes of compliance with the legislation, the Department requests that RCC ensures that their draft NAP does not conflate “*other relevant criteria*” for identifying action plan priorities with statutory limit values for noise.

Recommendation 2:

The Department recommends that in advance of an APA considering delimiting a quiet area in open countryside that a programme of further research focusing on the knowledge gaps above should be instigated for the purpose of providing effective guidance in relation to the identification and management of Quiet Areas in open countryside. This will help ensure an appropriate and consistent approach to any such delimitation proposals.