

Clean Air Strategy for Northern Ireland to 2032:

A Proposed Strategy for
Protecting Human Health
and the Environment.

***“Better Air Quality,
Across Northern Ireland”***



Department of
Agriculture, Environment
and Rural Affairs

An Roinn

Talmhaíochta, Comhshaoil
agus Gnóthaí Tuaithe

Depairtment o'

Fairmin, Environment
an' Kintra Matthers

www.daera-ni.gov.uk

How to respond to this consultation

Responses will help inform the final strategy for Northern Ireland and the consultation will run for eight weeks from 1st September 2026 closing on 27th October 2026.

The consultation is available from the DAERA consultation webpage <https://www.daera-ni.gov.uk/consultations>

You can respond to this consultation online by completing the Citizen Space response template which can be accessed at: <https://consultations2.nidirect.gov.uk/daera/clean-air-strategy-public-consultation-2026>

QR Code



If you are unable to complete the survey online, written responses can also be sent by email to: casni@daera-ni.gov.uk or by post to:

DAERA Air and Environmental Quality Branch
Clare House
303 Airport Road West
Belfast, BT3 9ED

Postal and email responses are limited to 500/750 characters per question to mirror the requirements being set on Citizen Space. Please be aware that postal responses will take longer to receive and process and so we encourage you to use the Citizen Space online survey. Please also allow adequate time for delivery.

You can request a copy of this document in other formats from the above email or postal address, such as:

- Paper Copy
- Large Print
- Braille
- Other Languages

When responding, please state whether you are doing so as an individual or representing the views of an organisation and if you are responding on behalf of an organisation, please make it clear who the organisation represents, and where applicable, how the views of members were considered.

To talk to one of the Consultation Team, you can telephone: 028 9052 4245. or if you experience a hearing difficulty, you can contact the Department via Text Relay. Dial 18001 028 9052 4245.

Contents

Ministerial Foreword	2
Executive Summary.....	3
Introduction.....	4
Structure of this Strategy	6
Air Quality Context in Northern Ireland	8
What are Northern Ireland’s Obligations?	11
Northern Ireland Policy Landscape	12
Strategic Objectives	14
Implementation and Governance	20
Annex A – Northern Ireland Clean Air Strategy Actions	22
Annex B - Why clean air is important.....	33
Annex C - Air Quality in Northern Ireland, main pollutants, sources and current position	37
Annex D – Trends on Northern Ireland Emissions by sector.....	47
Annex E - Publication of Responses	50
Annex F - Definitions.....	51
Annex G - Glossary/Abbreviations.....	53
Annex H Strategic alignment, Directives and International Treaties	55
Annex I - Northern Ireland pollutants, limits, targets and objectives in existing legislation	59

Ministerial Foreword

Our health depends on the quality of our environment with poor air quality being a significant risk to human health, in particular children and young people, the most vulnerable and those living in the most deprived communities.

Air quality also affects our wider environment with air pollution damaging ecosystems. It is essential that we work together to drive improvements in air quality, everyone should be able to benefit from clean air.

The draft Clean Air Strategy sets out our commitment and long-term ambition to improve air quality alongside the steps we will take to deliver this.

There is no ‘safe’ level of air pollution¹. It is estimated that the number of deaths attributed to long-term exposure to air pollution in Northern Ireland, range from 470 to 730 per year².

Northern Ireland faces similar issues with air pollution compared to the rest of the United Kingdom (UK) and Europe, most notably, levels of nitrogen dioxide (NO₂) found in urban centres, arising principally from road traffic. Some differences do however exist with Northern Ireland experiencing more significant problems with emissions from residential solid fuel burning and ammonia (NH₃) from agriculture. Air pollution is transboundary, and some pollutants can travel long distances in the air.

Some pollutants in parts of Northern Ireland continue to exceed air quality objectives set out in the UK Air Quality Strategy 2007. An increased effort to reduce air pollution is essential, together with monitoring to assess progress and to provide sound, evidence for further policy development and interventions.

This draft strategy presents evidence and research on a range of ambient air pollutants. It also outlines the current policy, legislation and measures in place to control air pollution and sets out further areas for action.

Following public consultation, the final strategy will play an important role in ensuring we build on the successes already achieved, further improving air quality for all.



A handwritten signature in blue ink, which appears to read 'Armin', followed by a long horizontal line extending to the right.

¹Asthma and Lung UK, August 2023 <https://www.asthmaandlung.org.uk/northern-ireland-manifesto-prevent-it>

² The UK Health Security Agency (UKHSA), 2022 Chemical Hazards and Poisons Report, https://assets.publishing.service.gov.uk/media/62ab19c4e90e07038e6df074/CHaPR_AQ_Special_Edition_2206116.pdf

Executive Summary

The draft Northern Ireland Clean Air Strategy sets out a clear ambition to improve air quality by 2032 through five strategic objectives; strengthening the evidence base; updating legislation with more ambitious particulate limits; raising public awareness and behavioural change; preventing pollution at source; and delivering action collaboratively across government and partners.

This strategy supersedes the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007. Prior to the publication of this strategy, the UK wide 2007 strategy provided general protection for air quality within Northern Ireland. A more focused approach is now possible with the introduction of Northern Ireland’s first bespoke strategy.

A comprehensive programme of actions, including upgraded monitoring, annual awareness campaigns, transport planning, tighter fuel and appliance standards, and a just transition away from polluting solid fuels for home heating, will support better health, protect the environment and promote cleaner, more sustainable communities.

Together, these measures will support a healthier population, more resilient natural environments, and cleaner communities. The strategy aims to ensure that by 2032, Northern Ireland has stronger air quality protections, greater public understanding of air pollution, and the foundations for continued long-term improvement.

This strategy calls upon everyone to play their part in reducing air pollution in Northern Ireland and make simple changes where possible, including active travel and choosing cleaner ways to heat our homes.

Introduction

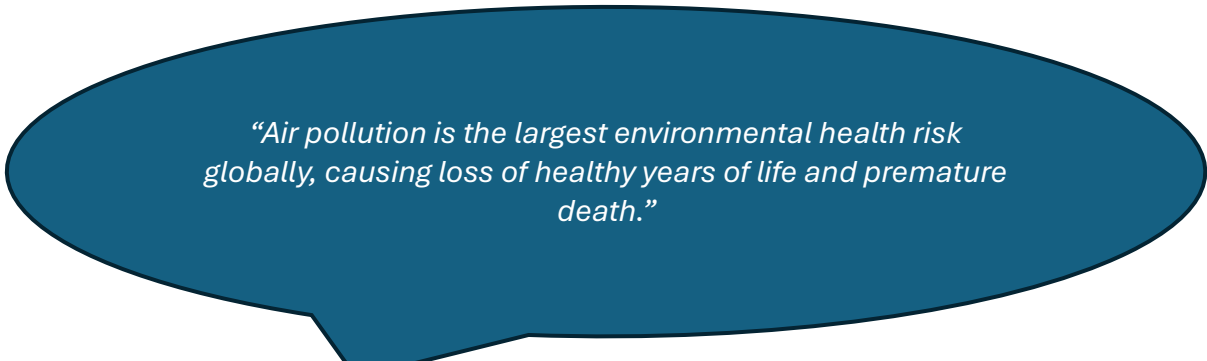
Air pollution is one of the most serious environmental health challenges in Northern Ireland. It affects everyone, from unborn babies to older adults. It can lead to breathing problems, heart disease, stroke, and even premature death. There is no safe level of air pollution.

Poor air quality also affects our economy by increasing healthcare costs and reducing productivity.

The main sources of harmful air pollution in Northern Ireland are:

- Traffic emissions in towns and cities
- Burning solid fuels like coal and wet wood in homes
- Ammonia from agriculture, which contributes to harmful particles in the air

While progress has been made, levels of pollutants such as fine particles (PM_{2.5}), nitrogen dioxide (NO₂), and ozone still exceed the latest World Health Organization guidelines in many areas. This strategy sets out how we will work together to reduce these pollutants, protect health, and create a cleaner environment for everyone.



“Air pollution is the largest environmental health risk globally, causing loss of healthy years of life and premature death.”

Source; Royal College of Physicians, 2025, ‘A Breath of Fresh Air’³

The issue we need to address

Clean air is essential for protecting health in Northern Ireland because air pollution affects people at every stage of life, from pregnancy to older age. Pollutants such as particulate matter (PM_{2.5} and

³ Royal College of Physicians, 2025, ‘A Breath of Fresh Air’, accessed 30/4/26, <https://www.rcp.ac.uk/policy-and-campaigns/policy-documents/a-breath-of-fresh-air-responding-to-the-health-challenges-of-modern-air-pollution/>

PM₁₀), and nitrogen dioxide (NO₂), can cause or worsen respiratory conditions like asthma, and long-term exposure is linked to heart disease, stroke, and dementia. Children are particularly vulnerable because polluted air can impair lung development and immune function. Outdoor air pollution is a leading environmental cause of cancer deaths, as confirmed by the International Agency for Research on Cancer⁴.

The total Health and Social Care cost of air pollution in Northern Ireland between 2017–2025 was estimated to be £55m to £190m⁵. Secondary care is likely to see the largest share of this expenditure. For the period 2017-2035, the combined cost is estimated to be in the region of £182m - £635m with air pollution expected to cause 84,000 new cases of disease in Northern Ireland during this time.

In Northern Ireland, urban traffic emissions and domestic solid fuel burning are major sources of harmful pollutants primarily for nitrogen dioxide and particulate matter, while ammonia mainly from agriculture impacts both health and ecosystems.

This Clean Air strategy will provide direction and a framework for action to improve air quality which will support better human health, increase public awareness of air quality issues to encourage behavioural change, reduce air pollution and protect the natural environment.

For the purposes of this draft strategy, we are focused on the reduction of the main air pollutants that have direct effects on human health. Ammonia emissions and levels are the subject of other policy measures, for example the draft Ammonia Strategy for Northern Ireland⁶.

In preparing this draft strategy, a significant level of research and collaboration has taken place to inform its content. Inter-linkages with other strategies have been considered, as were air quality strategies for neighbouring regions, and international best practice, to inform priorities, responsibilities and actions.

The Clean Air Strategy Discussion Document

In November 2020, DAERA launched a Discussion Document⁷ in advance of developing this strategy. The Discussion Document presented evidence and research on a range of ambient air pollutants. It also outlined the policy and legislation which was current at that time, and the measures which were in place to control air pollution. The Discussion Document put forward questions around pollutant source activities, with the aim of promoting discussion and the exchange of ideas. A summary of the responses to this consultation was also published in a Synopsis of Consultee Responses⁸.

⁴ International Agency for Research on Cancer (IARC), Outdoor air pollution a leading environmental cause of cancer deaths 2013, accessed 30/04/26, https://www.iarc.who.int/wp-content/uploads/2018/07/pr221_E.pdf

⁵ AQO 2761/17-22 To ask the Minister of Health to outline the cost of air pollution to the health service. <http://aims.niassembly.gov.uk/questions/printquestionssummary.aspx?docid=358789>

⁶ Draft Ammonia Strategy for Northern Ireland Consultation, accessed 30/04/26, <https://www.daera-ni.gov.uk/consultations/draft-ammonia-strategy-northern-ireland-consultation>

⁷ DAERA's Clean Air Strategy for Northern Ireland: A Public Discussion Document, November 2020, accessed 06/05/26, <https://www.daera-ni.gov.uk/consultations/clean-air-strategy-northern-ireland-public-discussion-document>

⁸ DAERA's Clean Air Strategy for Northern Ireland - A Public Discussion Document Synopsis of Consultee Responses, June 2022, accessed 06/05/26, <https://www.daera-ni.gov.uk/consultations/clean-air-strategy-northern-ireland-public-discussion-document-synopsis-of-consultee-responses>

Structure of this Strategy

Figure 1. Structure of the Northern Ireland Clean Air Strategy



Aim

The aim of the strategy is: ***To improve air quality across Northern Ireland by 2032 for the benefit of human health and the environment.***

Goals

We have proposed three key goals which we will achieve by 2032:

1. To improve air quality to support better human health and prevent ill health and premature deaths associated with air pollution
2. To reduce air pollution for a cleaner environment
3. To increase public awareness of air quality issues and empower the public to take personal action to improve air quality.

Figure 2. Northern Ireland Clean Air Strategy Strategic Objectives



These five strategic objectives provide the overarching framework through which we will achieve the goals set out above. A series of actions designed to deliver progress in all five objectives is set out in Annex A.

The strategic objectives apply across Northern Ireland and include commitments to:

- **Develop our evidence base** by building on our existing high quality air quality network. This will provide more scientific air quality data, which will help to show if policy changes are working or not. This will inform future decisions and allow us to measure success.
- **Improve legislation** by updating existing legislation to protect Northern Ireland’s air quality and human health. New ambitious PM_{2.5} and PM₁₀ limits/targets are intended to be introduced, following consultation.
- **Raise Awareness and change behaviour** by providing people with clear, concise and accurate information to allow people to make better informed decisions and change behaviour. Behaviour change campaigns will be central to changing habits and improving air quality.
- **Work towards zero pollution** by preventing air pollution at source. If prevention is not fully possible, air pollution should be minimised; and, if air pollution has occurred, it should be remediated.
- **Deliver change through partners** by working together to manage and improve Northern Ireland’s air quality. DAERA will work with the District Councils to improve the Local Air Quality Management (LAQM) regime and grant. The wide range of partners will also include, for example, Department for the Economy, Department for Infrastructure, Department of Health

and its Arm’s Length Bodies, Department for Communities and the Northern Ireland Environment Agency.

This is intended to be a six-year strategy ending in 2032, with a midpoint review in 2029. At the end of the strategy’s timescale, a further review will take place. If a new strategy is not in place to replace this, the current version will remain operational and fulfil the requirements of the Environment (Northern Ireland) Order 2002⁹. The policies contained in the strategy will be kept under review. The overall strategy will be subject to review and modification as appropriate to ensure its ongoing effectiveness.

Figure 3. Northern Ireland Clean Air Strategy Timeline



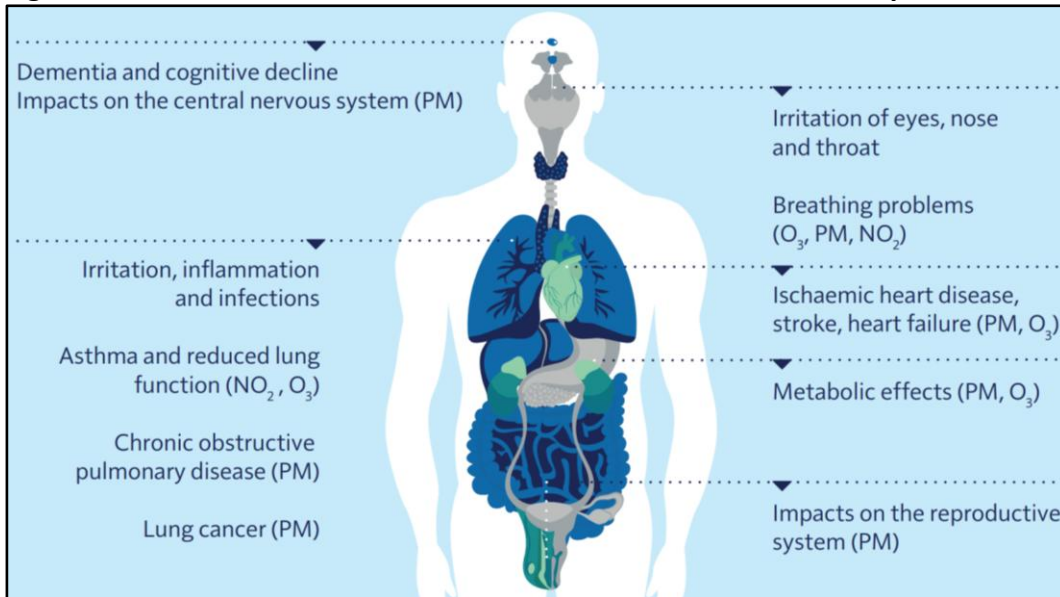
Air Quality Context in Northern Ireland

The main air pollutants and their sources

Northern Ireland’s main air pollutants are particulate matter (PM₁₀, PM_{2.5}, PM_{0.1}), nitrogen oxides (NO_x), ozone (O₃), sulphur dioxide (SO₂), and polycyclic aromatic hydrocarbons (PAHs). PM_{2.5} is one of the most harmful, entering lungs, then the bloodstream, where it increases the risks of heart disease and stroke. NO₂ from traffic worsens respiratory conditions, while ozone irritates airways and damages crops. SO₂, mainly from coal burning, affects lungs and ecosystems, and PAHs from solid fuel burning are linked to cancer. In Northern Ireland, domestic heating, transport, and agriculture are key sources. Annex C provides further detail on the main air pollutants and their sources.

⁹ The Environment (Northern Ireland) Order 2002, accessed 30/04/26, <https://www.legislation.gov.uk/nisi/2002/3153/data.pdf>

Figure 4. An overview of some of the health effects of different air pollutants¹⁰



Reducing air pollution will prevent premature deaths, improve quality of life, and reduce healthcare costs, making clean air a critical public health priority. Annex B provides further detail on why clean air is important.

Current status of air quality in Northern Ireland

Monitored air pollution levels in Northern Ireland show compliance as well as exceedances of air quality objectives. Whilst concentrations of sulphur dioxide (SO_2), a pollutant associated with coal and oil combustion, have declined significantly since the 1990s, and a decreasing trend in nitrogen dioxide (NO_2) concentrations has been observed at some monitoring sites in Northern Ireland, a number of pollutants in some parts of Northern Ireland continue to exceed air quality objectives, one of which is ozone.

There is also growing concern in Northern Ireland, and across the UK regarding particulate matter, including ultra-fine particulate matter ($PM_{0.1}$) which are particles smaller than 0.1 microns, and the impact of this pollutant on health.

There are a wide range of technical terms and concepts in national and international initiatives, for example, standards, limit values, target values and objectives. Use of these technical terms is unavoidable. Several of these terms feature in this draft strategy, and are defined in Annex F. Two key concepts provide the central structure. These are **standards** and **objectives** as set out in Part III of the Environment (Northern Ireland Order) 2002.

¹⁰ Chief Medical Officer's Annual report 2022, Air Pollution, accessed 30/04/26

<https://assets.publishing.service.gov.uk/media/639aeb81e90e0721889bbf2f/chief-medical-officers-annual-report-air-pollution-dec-2022.pdf>

In 2024, Northern Ireland met all the limit values and target values of the Air Quality Standards Regulations (Northern Ireland) 2010 (AQSRNI). The UK Air Quality Strategy Objectives for all measured pollutants were also met, except for the PAH, benzo[a]pyrene.

Progress is needed on particulate matter (measured as PM₁₀ and PM_{2.5}), ozone and nitrogen dioxide to meet the more stringent World Health Organization (WHO) guidelines, to reduce the negative impacts of air pollution and save lives. There is growing concern regarding particulate pollution and its impact on human health. Although monitoring has expanded in Northern Ireland, some harmful pollutants, including ultrafine particles (PM_{0.1}), are not currently monitored. Overall, Northern Ireland needs stronger measures to meet international health-based standards and protect vulnerable communities.

Northern Ireland source emissions by sector, based on the National Atmospheric Emissions Inventory

According to data from the National Atmospheric Emissions Inventory, between 2013 and 2023, Northern Ireland saw a 63% reduction in SO₂ emissions, largely due to decreased coal use in power generation sector. NO_x emissions fell 57% between 2005 and 2020, driven by a cleaner fuels energy sector and stricter vehicle standards in the transport sector.

Benzo[a]pyrene (B[a]P) emissions dropped from 2022 to 2023 due to reduced domestic burning of solid fuels. PM_{2.5} emissions have steadily declined since 2019, influenced by cleaner residential heating, as well as phasing out of coal in industrial combustion and energy production. PM₁₀ emissions decreased by 33% since 2005, with agriculture now the largest contributor. Ammonia emissions (ammonia is covered separately in the draft Ammonia Strategy¹¹) rose 6% since 2005, with the agricultural sector accounting for 12% of the UK total in 2023¹². Further detail on Northern Ireland emissions is set out in Annex D.

Indicators

To help monitor the progress of this strategy, when finalised, indicators will be used to show how the strategy is progressing. The final indicators will be informed by the views received following public consultation. The suggested indicators for particulate matter are:

Downward (improving) trend in:

- **PM_{2.5} to 10µg/m³ as an annual average, in line with WHO Interim Target 4 (from 25µg/m³ at present); and**

¹¹ Draft Ammonia Strategy for Northern Ireland Consultation, accessed 30/04/26, <https://www.daera-ni.gov.uk/consultations/draft-ammonia-strategy-northern-ireland-consultation>

¹² National Atmospheric Emissions Inventory, AIR POLLUTANT INVENTORIES FOR ENGLAND, SCOTLAND, WALES AND NORTHERN IRELAND: 2005-2023, 19 September 2025, accessed 30/04/26, https://naei.energysecurity.gov.uk/sites/default/files/2025-09/DG_AP_Inventory_2005-2023_Report_FINAL_for_publication.pdf

- **PM₁₀ to 20µg/m³ as an annual average, in line with WHO Interim Target 4 (from 40µg/m³)**

The strategy has a focus on particulate matter since it is the pollutant of greatest concern¹³, shown to have the greatest impacts on human health. The updated 2021 World Health Organisation (WHO) Global Air Quality Guidelines (AQGs)¹⁴ provide recommendations on air quality guideline levels and interim targets for key air pollutants (Interim Target 1, then 2, 3, 4 up to the AQG level, which is the most challenging). While these challenging new levels and targets are not legal obligations, their merit is clear and essential in protecting human health.

Other important indicators include improved feedback when DAERA run and then repeat a baseline air quality awareness public survey.

To measure the improvement in feedback the following indicator will be used:

- **10% increase in average score across all respondents for key questions to the awareness survey;**

Improvement in vehicle emissions will be measured using the following indicator:

- **A downward (improving) trend in the Wellbeing Framework NO₂ indicator, down to 10µg/m³.**

What are Northern Ireland's Obligations?

Legal requirements

DAERA has a legal requirement to publish an air quality strategy (Clean Air Strategy). Under Article 10 Part III of The Environment (Northern Ireland) Order 2002¹⁵ (the Environment Order), the Department is required to prepare and publish a statement containing policies with respect to the assessment or management of the quality of air. The strategy must include:

- **standards** relating to the quality of air;
- **objectives** for the restriction of the levels at which particular substances are present in the air; and

¹³ Air Quality Expert Group, New Opportunities for Particulate Measurements, 2023, accessed 30/04/26, https://uk-air.defra.gov.uk/assets/documents/reports/cat05/2411120859_PM_measurement_AQEG_submitted_19jun2023_update_20241111.pdf

¹⁴ 2021 World Health Organisation (WHO) Global Air Quality Guidelines, accessed 30/04/26, <https://iris.who.int/bitstream/handle/10665/345329/9789240034228-eng.pdf?sequence=1>

¹⁵ Part III of The Environment (Northern Ireland) Order 2002 (pages 6 - 7), accessed 30/04/26, <https://www.legislation.gov.uk/nisi/2002/3153/data.pdf>

- **measures** which are to be taken by relevant authorities and other persons for the purpose of achieving those objectives.

Measures can take the form of policies, technological advancement or encourage behavioural change. For the purposes of this draft strategy, the measures required will take the form of ‘Actions’ which are set out in Annex A.

Prior to publication of this draft strategy, Northern Ireland was included in the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 (UK AQS 2007)¹⁶. However, a Northern Ireland strategy is preferable for dealing with regional air quality matters. Furthermore, DEFRA will withdraw the UK AQS 2007 once a Northern Ireland strategy has been published. This strategy will capture the UK AQS 2007 objectives, limits and target values which have been included in Annex I of this strategy. This will ensure that there is no reduction in the protection to human health and the environment.

Northern Ireland Policy Landscape

Existing standards, limit values, target values and objectives, for air quality in Northern Ireland, primarily come from the CAFÉ Directive, Air Quality Standards Regulations (Northern Ireland) 2010 (AQS Regs (NI) 2010), National Emissions Ceiling Directive (NECD), and the UK AQS 2007.

The WHO Guidelines¹⁷ (as set out in table 1 below) are lower than the existing limits, targets, standards and objectives as set out in Annex I of this strategy. Since the last WHO 2005 global update, there has been a marked increase in the robustness and quantity of evidence that shows how air pollution affects different aspects of health. For that reason, and after a systematic review of the accumulated evidence, several of the updated AQG values are now lower than 15 years ago. There are also now clearer insights about sources of emissions and the contribution of air pollutants to the global burden of disease. This will mean that change is necessary if we are to comply with the WHO Guidelines.

Table 1. WHO 2021 air quality guidelines for NO₂, PM₁₀ and PM_{2.5}

Pollutant	Averaging period	2021 WHO Interim Targets				2021 WHO Air Quality Guideline level
		1	2	3	4	
NO ₂ (µg m ⁻³)	Annual	40	30	20	-	10
	24 hour*	120	50	-	-	25
PM ₁₀ (µg m ⁻³)	Annual	70	50	30	20	15
	24 hour*	150	100	75	50	45

¹⁶ The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Volume 1, 2007, accessed 30/04/26, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf

¹⁷ 2021 World Health Organisation (WHO) Global Air Quality Guidelines, accessed 30/04/26, <https://iris.who.int/bitstream/handle/10665/345329/9789240034228-eng.pdf?sequence=1>

PM _{2.5} (µg m ⁻³)	Annual	35	25	15	10	5
	24 hour*	75	50	37.5	25	15

To note, there are also WHO guidelines for SO₂, CO and ozone.

Several Directives and International Treaties are also part of the Northern Ireland air quality policy landscape; these are set out in Annex H.

Strategic alignment - interacting and supporting policies

This strategy will contribute to delivery of the UN Sustainable Development Goals¹⁸ and it also follows the principles of One Health, recognising that the health of humans, domestic and wild animals (to a lesser extent in this strategy), plants, and the wider environment and ecosystems, are closely linked and inter-dependent¹⁹.

The Programme for Government (PfG) 2024-2027²⁰ sets out how the Executive will create a brighter future to improve wellbeing for all. Through the 2024-2027 PfG, the Executive want a society focused on wellbeing with an economy that can grow sustainably whilst reducing our emissions and protecting our environment. Through our proposed actions we will take steps to support a fairer, cleaner, healthier future for all. The DAERA Corporate Plan 2025-2027²¹ also supports the implementation of this strategy by prioritising sustainable living, air and health.

This draft Clean Air Strategy is also underpinned by a range of influencing and supporting policies across government. Key frameworks and strategies include DAERA’s smoke control regime²², Local Air Quality Management regimes²³, the draft Green Growth Strategy²⁴, the Environmental Improvement Plan²⁵, the Draft Ammonia Strategy for Northern Ireland²⁶, Soil Nutrient Health Scheme²⁷, the Sustainable Agricultural Programme (SAP)²⁸, the Nutrients Action Programme (NAP)²⁹,

¹⁸ United Nations, The 17 Goals, accessed 30/04/26, <https://sdgs.un.org/goals>

¹⁹ WHO, The One Health Definition and Principles, 2023, accessed 30/04/26, https://cdn.who.int/media/docs/default-source/one-health/ohhlep/one-health-definition-and-principles-translations.pdf?sfvrsn=d85839dd_6&download=true

²⁰ The Northern Ireland Executive, Programme for Government 2024-2027 ‘Our Plan: Doing What Matters Most’, 2025, accessed 30/04/26, <https://www.northernireland.gov.uk/articles/programme-government-2024-2027-our-plan-doing-what-matters-most>

²¹ DAERA Corporate Plan 2025-2027, accessed 30/04/26, https://www.daera-ni.gov.uk/sites/default/files/2025-03/DAERA%20Corporate%20Plan%202025-2027_0.pdf

²² DAERA Smoke Control, accessed 30/04/26 <https://www.daera-ni.gov.uk/articles/air-pollution-and-smoke-control#toc-5>

²³ DEFRA LAQM Support Website, accessed 30/04/26, <https://laqm.defra.gov.uk/>

²⁴ DAERA Draft Green Growth Strategy, accessed 30/04/26, <https://www.daera-ni.gov.uk/articles/green-growth-strategy-northern-ireland-balancing-our-climate-environment-and-economy>

²⁵ DAERA The Environmental Improvement Plan, accessed 30/04/26, <https://www.daera-ni.gov.uk/articles/environmental-improvement-plan>

²⁶ DAERA Draft Ammonia Strategy for Northern Ireland, accessed 30/04/26, <https://www.daera-ni.gov.uk/consultations/draft-ammonia-strategy-northern-ireland-consultation>

²⁷ DAERA, Soil, accessed 30/04/26, <https://www.daera-ni.gov.uk/topics/soil>

²⁸ DAERA Sustainable Agricultural Programme, accessed 30/04/26, <https://www.daera-ni.gov.uk/topics/sustainable-agriculture-programme>

²⁹ Nutrients Action Programme, accessed 30/04/26, <https://www.daera-ni.gov.uk/articles/nutrients-action-programme>

the Energy Strategy - Path to Net Zero Energy³⁰, the Draft Transport Strategy 2035³¹ the Cancer Strategy for Northern Ireland 2022 - 2032³², the Climate Change Act (Northern Ireland) 2022³³ and the Draft Climate Action Plan³⁴. Annex H contains more information.

Industrial emissions, waste incineration and The UK Emissions Trading Scheme (ETS), which incentivises participants to reduce their emissions intensity are outside the scope of this strategy and are being taken forward under other DAERA work streams.

DAERA works closely with the Irish Department of Climate Energy and the Environment (DCEE), the UK Department for Environment, Food and Rural Affairs (DEFRA), Scottish Government (SG) and Welsh Government (WG) to ensure the effects of transboundary air pollution are minimised. This working relationship will ensure there is an awareness of new and emerging policies, best practice and knowledge.

Indoor air quality

There are currently no regulations with specific limits for indoor air quality. However, there are a number of regulations that restrict emissions of specified compounds in some indoor environments. While DAERA has a legislative responsibility for outdoor (ambient) air quality, it does not have responsibility for indoor air quality. DAERA does have policy responsibility for chemicals which are used in household soft furnishings and many day-to-day household products. Through regulating chemicals and by improving outdoor air quality, indoor air quality will also benefit. However, this means that a wide range of indoor biological and physical pollutants remain outside the remit of this strategy.

Strategic Objectives

This draft strategy has five strategic objectives. Each has a set of actions that will help us to improve air quality to support better human health, reduce air pollution and increase public awareness of air quality issues. The actions are detailed in Annex A. The actions will be led by either DAERA or another NICS Department. The actions relate to policy, legislation and initiatives or funding which are needed to deliver change.

Actions listed in this draft strategy are also considered as ‘measures which are to be taken by relevant authorities and other persons for the purpose of achieving those objectives’, as required

³⁰ Department for the Economy, Energy Strategy - Path to Net Zero Energy, accessed 30/04/26, <https://www.economy-ni.gov.uk/publications/energy-strategy-path-net-zero-energy>

³¹ Department for Infrastructure, Draft Transport Strategy 2035, accessed 13/5/26, <https://www.infrastructure-ni.gov.uk/sites/default/files/2025-06/transport-strategy-consultation-23june2025.pdf>

³² Department of Health, A Cancer Strategy for Northern Ireland 2022-2032, accessed 30/04/26, <https://www.health-ni.gov.uk/sites/default/files/publications/health/doh-cancer-strategy-march-2022.pdf>

³³ The Climate Change Act (Northern Ireland) 2022, accessed 30/04/26, <https://www.legislation.gov.uk/nia/2022/31/enacted>

³⁴ DAERA Draft Climate Action Plan, accessed 30/04/26, <https://www.daera-ni.gov.uk/consultations/public-consultation-northern-irelands-draft-climate-action-plan-2023-2027>

under Article 10 Part III of The Environment (Northern Ireland) Order 2002³⁵ (the Environment Order).

It is important to note that Annex I - Northern Ireland pollutants, limits, targets and objectives in existing legislations; forms an important part of this strategy, as do all the Annexes.

Objective 1. Develop our evidence base

We will build on our existing air quality network. This will provide more scientific air quality data, which will help to strengthen our evidence base and support further policy development. This will be important to inform future decisions and measure success.

1.1 Undertake knowledge surveys

DAERA will carry out two knowledge surveys, one before the public awareness campaigns, and one at the end of the strategy in December 2032. These knowledge surveys will measure the level of public understanding of air quality and pollutants, and will develop a comprehensive evidence base, to assess the impact of the awareness campaigns.

The baseline survey was completed in July 2025, and the same survey will be repeated after all campaigns conclude at the end of this strategy in 2032. By comparing the results of the two surveys, DAERA can determine if the campaigns or Actions, have increased awareness of air quality issues in Northern Ireland, or helped to bring about positive change. DAERA can then adapt its messaging and policies to support people to reduce air pollution.

1.2 Review the Northern Ireland air quality monitoring network

DAERA has commissioned an independent air quality expert to review the Northern Ireland air quality monitoring network. This will ensure the necessary monitoring coverage is in place for, legislative compliance, protection of human health, protection of the environment, provision of air quality alerts, and ongoing assessment of emissions levels considering the 2021 WHO global air quality guidelines. By December 2027 DAERA will analyse the findings and prioritise recommendations.

1.3 Expand and upgrade the NI air quality monitoring network

DAERA will regularly engage with District Councils. This will include two formal meetings each year, through the Local Air Quality Management (LAQM) regime. The meetings will discuss the locations for additional monitoring sites, which additional pollutants will be monitored at existing sites, and upgrading and expanding air quality monitoring in Northern Ireland. Monitoring data will be made available on www.airqualityni.co.uk and the ‘Air Pollution in Northern Ireland Annual Report’³⁶.

1.4 Assess the feasibility of establishing ultra-fine particulate matter monitoring in Northern Ireland

³⁵ Part III of The Environment (Northern Ireland) Order 2002 (pages 6 - 7), accessed 30/04/26, <https://www.legislation.gov.uk/nisi/2002/3153/data.pdf>

³⁶ DAERA Air Pollution in Northern Ireland Reports, accessed 30/04/26, <https://www.airqualityni.co.uk/reports>

Within one year of publication of the PEACEPLUS Clean Air Project (PEACE-Air) report, which will be delivered by 31 May 2029, DAERA will consider the report’s recommendations regarding ultrafine particulate monitoring in Northern Ireland and determine the need for monitoring.

1.5 Develop an Air Quality Model Application

By June 2032, DfI will have developed and added an Air Quality model application to the Department for Infrastructure’s bespoke NI Transport Emissions Model (TEM). DfI will engage with DAERA on what pollutants will be modelled.

Objective 2. Improve legislation

DAERA will, subject to consultation and Assembly approval, update existing legislation to introduce new PM_{2.5} and PM₁₀ limits/targets/objectives; review air quality definitions and will consider further options on stove and solid fuel labelling and stove smoke emission rate in smoke control areas (SCAs) following a UK wide consultation³⁷.

Actions

2.1 Consult on new PM_{2.5} and PM₁₀ limit values and make relevant legislative changes

In 2026 DAERA will consult on an annual average air quality limit/objective of 20 µg/m³ for PM₁₀ and 10 µg/m³ for PM_{2.5} in line with World Health Organisation Air Quality Guidelines Interim Target 4. It will also consult on a new annual average target value of 8µg/m³ for PM_{2.5}. These limits will be set out in new secondary legislation which will amend the Air Quality Standards Regulations (Northern Ireland) 2010; and Air Quality Regulations (Northern Ireland) 2003 to be achieved by 1 January 2028.

In complying with any future regulations, other NICS Departments will be required to take the necessary actions within their remit to reduce emissions, as required by the Air Quality Regulations (Northern Ireland) 2003, and be fully involved in LAQM as well as supporting District Councils through adoption and implementation of measures within the remit of the NICS Departments.

2.2 Review and simplify air quality policy monitoring terms for the public

By the end of December 2028, DAERA will undertake a review of the use of technical definitions and terms used within air quality policy and monitoring regimes. This review will aim to simplify these terms and make this information more accessible for the public. Examples include - standards, objectives, critical load, critical level, target value and limit values. These terms come from a variety of policies and pieces of legislation including CAFÉ Directive, AQS Regs (NI) 2010, NECD, and the UK ASQ.

2.3 DAERA will work with the UK Government to analyse the consultation responses to the 2026 UK wide consultation on solid fuel burning

³⁷ Consultation on solid fuel burning - taking action to reduce fine particulate matter and smoke emissions, <https://consult.defra.gov.uk/domestic-burning/consultation-on-solid-fuel-burning/>

Within six months of responses being shared by DEFRA, DAERA will analyse the Northern Ireland specific responses to the 2026 UK wide consultation. This consultation gathered views on new smoke emission rates for appliances in SCAs, health and emissions labelling for stoves and health labelling on the packaging of solid fuels. This analysis will determine further options which could be taken forward in Northern Ireland by DAERA, DoH and DfE, which may require new UK wide legislation and consent from the relevant Department in Northern Ireland.

Objective 3. Raise Awareness and bring about Behavioural Change

DAERA will run awareness campaigns to inform the public about the risks to their health of air pollution. These campaigns will inform the public of the actions they can take, or alternative decisions they can make, to reduce their personal contribution to air pollution. DAERA will also evaluate the impact of the awareness campaigns, to ensure they are successful.

Actions

3.1 Launch Air Quality Awareness and Behaviour Change Campaigns

DAERA will develop and launch an awareness and behaviour change campaign, for each year for the duration of this Strategy. Possible topics include:

- ‘No idling’ at schools
- Solid fuel burning
- Wet wood burning
- Clean Air Primary Schools Campaign
- Indoor air quality
- Clean Air Night/Day

DAERA will lead these campaigns, assisted by other NICS Departments, and will be guided by best practice approaches. The campaigns will aim to ensure improved public awareness of the sources of information about national and local pollution levels. The campaigns will also aim to help the public understand the sources of harmful air pollution, and the consequences for human health.

Objective 4. Work towards zero pollution

Together, we will prevent air pollution at source. If prevention is not fully possible, air pollution should be minimised; and, if air pollution has occurred, it should be remediated through existing regulations.

Actions

4.1 Achieve a fair and just transition to phasing out of coal, manufactured solid fuels and unseasoned wood for home heating

By the end of 2027, DAERA will issue a ‘Call for Evidence’, to seek views on bringing forward secondary legislation, to restrict or phase out coal and/or, manufactured solid fuels, and/or unseasoned wood.

Alongside any proposals to phase out or restrict solid fuel burning, DAERA will work with other government departments to ensure support is in place to deliver a Just Transition to cleaner, decarbonised heating that will positively impact air quality.

4.2 Produce Local Draft Transport Plans

DfI will publish local draft Transport Plans covering Belfast and the Northwest, for consultation (by December 2026). These Plans will outline how the transport network could be integrated and re-balanced, improving air quality and facilitating healthy and sustainable transport choices. The final Local Transport Plans will be published by December 2027.

4.3 Conduct diesel particulate filter tests

By 2026, the Driver and Vehicle Agency (DVA) will begin the introduction of a diesel emissions Particulate Number (PN) test on all cars and light goods vehicles registered from 1 January 2013. The planned legislative amendment will also provide for light and heavy vehicles to undergo a PN diesel emissions test during roadside enforcement checks.

DVA will report on the outcomes of annual tests that result in a major defect being recorded and where roadside inspections identify emissions defects that result in fines or prohibition notices. Findings to be made publicly available.

Objective 5. Deliver Change through Partners

DAERA will work other government departments and delivery partners, to bring about change and improve Northern Ireland’s air quality.

Actions

5.1 Establish a Northern Ireland Clean Air Forum

A Clean Air Forum will be established within three months of the launch of the strategy. The Forum will create a strong working partnership between DAERA, NICS Departments, NI District Councils and non-Government Organisations. It will be an effective forum that acts as a link between neighbouring government jurisdictions, with a focus on enhancing cooperation north-south, as well as east-west air pollution matters, and emerging issues such as indoor air quality.

5.2 Increase investment in Active Travel

DfI will increase investment in active travel to 10% of the overall transport budget by 2030, primarily through the implementation of the Active Travel Delivery Plan, the Belfast Cycling Network Delivery Plan, the Strategic Plan for Greenways, and continue to promote active travel through ongoing engagement with schools.

5.3 Deliver a transboundary air pollution collaborative project (PEACEPLUS)

By May 2029 DAERA as an observer providing policy advice and NIEA, as an associated partner, will have participated in and delivered the €6.5M PEACEPLUS Clean Air (PEACE-Air) project focussing on solid fuel, transport and ammonia emissions.

The PEACE-Air³⁸ project must be delivered by 31 May 2029 to meet the requirements of the PEACEPLUS Programme. It will focus on 4 specific work packages (WP):

- WP1: Solid fuel burning
- WP2: Transport-related air pollution
- WP3: Ammonia pollution and impacts on biodiversity and sensitive ecosystems Speciation of particulate matter.
- WP4: Cross-cutting strategies for community engagement, capacity building, and legacy

5.4 Establish an Air Quality Common Framework

By 2032 DAERA will have worked with DEFRA and the other devolved governments, to finalise, agree and implement the UK Air Quality Common Framework following EU Exit.

5.5 Improve policy integration between air quality, noise and net zero

By 2030 when reviewing policy and technical guidance relating to air quality, net zero and environmental noise, DAERA will ensure improved connectivity between air quality, net zero and noise in its policies. This will include Local Air Quality Management Technical Guidance (TG22)³⁹ and Northern Ireland Policy Guidance PGNI (09)⁴⁰.

By the same date, all departments will also have considered the impact on air quality and noise of other policies/measures which relate to climate change and net-zero.

5.6 Review the LAQM process and associated guidance

Following a review of the air quality monitoring network, and engagement with councils on improvement of the network, DAERA will, by 2032 review the Local Air Quality Management (LAQM) process for Northern Ireland.

5.7 Review the LAQM Grant

Following publication of the revised Local Air Quality Management (LAQM) Policy and Technical Guidance (TG22) by the end of December 2029, DAERA will review the LAQM Grant by the end of December 2031, at the end of the current grant duration. This review will aim to ensure good value for money for DAERA and the district councils, and to optimise the benefit for the public through improved air quality.

Indicators

³⁸ PeacePlus, Northern Ireland – Ireland, accessed 30/04/26, <https://peace-air.eu/>

³⁹ DEFRA, Local Air Quality Management Technical Guidance (TG22), August 2022, accessed 30/04/26, <https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf>

⁴⁰ DoE (now DAERA), Local Air Quality Management Policy Guidance – LAQM PGNI (09) June 2010, accessed 30/04/26, <https://laqm.defra.gov.uk/air-quality/guidance/northern-ireland-policy-guidance/>

The strategy will be measured by three indicators which are set out in the table below, along with the actions that will help deliver them.

Table 2. The Clean Air Strategy Indicators and the associated Actions

	Indicator	Action number
1.	Downward (improving) trend in: ➤ PM_{2.5} to 10µg/m³ (as an annual average in line with WHO Interim Target 4); and ➤ PM₁₀ to 20µg/m³ as an (as an annual average in line with WHO Interim Target)	2.1, 2.2, 2.3 4.1
2.	Downward (improving) trend in: ➤ The Wellbeing Framework NO₂ indicator, down to 10µg/m³	3.1 4.2, 4.3, 5.1, 5.2, 5.3 5.4, 5.5, 5.6 5.7
3.	➤ 10% increase in average score across all respondents for key questions to the awareness survey	1.1, 1.2, 1.3 1.4, 1.5 3.1

Implementation and Governance

Delivery of this strategy will rely upon interdepartmental collaboration between DAERA, DfE, DfI and DoH, and district council engagement. Annex A is the Northern Ireland Clean Air Delivery Plan and each action has a clearly identified delivery lead.

Senior level, inter- and cross-departmental management and governance structures are required to oversee the successful implementation of the Clean Air Strategy. The existing Clean Air Strategy Inter-Departmental Steering Group, chaired by DAERA, will play an important governance role. The Steering Group will meet annually and review delivery of Strategic Objectives and Actions.

The new Clean Air Forum will operate alongside the cross-Departmental Steering Group to enable partnership working between DAERA, NICS Departments, NI District Councils and non-Government Organisations.

Department of Agriculture Environment and Rural Affairs (DAERA)

DAERA will lead the delivery of this strategy and the majority of the actions set out in Annex A. DfI will lead the delivery of some actions within their remit. A range of other government organisations, the district councils, and Agencies, will play an important role too. Monitoring will be carried out through annual progress reports including input from all departments. DAERA will put in place a reporting framework which will monitor progress on how we are achieving our goals and delivering better human health outcomes.

Department for the Economy (DfE)

The Executive’s Energy Strategy commits to several policy priorities, including the phasing out of coal and solid fuels, although not all of these are led by DfE as in many cases the department does not have legislative responsibility or the required powers. DfE will partner with DAERA and across government, including UK Government, to progress policy priorities on delivering a Just Transition to cleaner, decarbonised heating that will positively impact air quality. DfE are progressing policy in the development of support that will help to reduce energy demand.

Department for Infrastructure (DfI)

DfI is actively delivering a range of actions aimed at improving air quality across Northern Ireland. Key initiatives include promoting the shift to low-emission vehicles, enhancing public transport and active travel infrastructure, and using “best in class” modelling to better inform the planning of the transport network. These efforts are part of a broader commitment to climate action and sustainability, aligning with statutory regulations and strategic frameworks to reduce surface transport emissions and improve environmental outcomes.

Department of Health (DoH)

DoH worked closely with DAERA during the development of this strategy and invited DAERA to attend their Respiratory Forum, which DAERA has accepted. The two departments will continue to work closely together to promote awareness and change behaviour to protect human health. This close working partnership will help to share information with those who are most vulnerable and to prevent ill.

Cost of this strategy

Government funding for delivery will be subject to the usual affordability and business case assessment by the relevant departments. District councils will continue to have an element of funding contributions through the local Air Quality Management (LAQM) Grant. Combining these resources will ensure that our air quality is managed effectively, and that the best use is made of public money.

Annex A – Actions and Delivery Plan

Table 3. Northern Ireland Clean Air Strategy Actions and Delivery Plan

Strategic Objective 1 – Develop our evidence base

Actions	How we will do this	Impacts	Lead Department and Potential delivery Partner(s)	Date for completion of action
1.1 Undertake knowledge surveys	The baseline survey was completed in July 2025 and a further survey will be undertaken at the end of the strategy in 2032.	Increase public awareness of air quality issues, leading to people taking personal actions to improve air quality. As well as: - Better public understanding of the data - Increased number of subscribers to the Air Aware service - Further downloads of the Air NI app	Lead - DAERA Partners: Other NICS Departments	The baseline survey was completed in July 2025 and a further survey will be undertaken at the end of the strategy in 2032
1.2 Review the Northern Ireland air quality monitoring network	DAERA has commissioned an independent air quality expert to review the Northern Ireland air quality monitoring network.	Comprehensive evidence base and a better understanding of data. We have a high-quality monitoring network. As well as:	Lead - DAERA Partners: District Councils	By the end of December 2027

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

	By December 2027 DAERA will analyse the findings and prioritise recommendations.	- Increased geographical coverage of air quality monitoring - Increased number of pollutants monitored - Increased real-time data upon which to issue air quality alerts		
1.3 Expand and upgrade the NI air quality monitoring network	DAERA will engage with district councils and other relevant authorities regarding locations for additional monitoring sites and monitoring of additional pollutants at existing sites. Potential costs, value for money, proportionality and longevity of equipment will be considerations in this expansion and improvement of the monitoring network. DAERA will regularly engage with District Councils. This will include two formal meetings each year, through the Local Air Quality Management (LAQM) regime.	We have a high-quality monitoring network and: - Fit for purpose monitoring - More robust and representative data - Increased granularity of data - Value for money - Better public health protection, particularly for the most vulnerable	Lead - DAERA Partners: District Councils	Expanded and upgraded monitoring network in place by the end of December 2032
1.4 Assess the feasibility of establishing ultra-fine particulate matter monitoring in Northern Ireland	Within one year of publication of the PEACEPLUS Clean Air Project (PEACE-Air) report, which will be delivered by 31 st May 2029, DAERA will consider the report’s recommendations	We have a high-quality monitoring network and: - Better public health protection, particularly for those with respiratory or circulatory disease and the most vulnerable in our	Lead - DAERA Partners: NIEA DCEE	Within one year of publication of the PEACEPLUS Clean Air Project (PEACE-Air) report, currently

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

	regarding ultrafine particulate monitoring in Northern Ireland and determine the need for monitoring.	community, including the very young and the very old - Reduced air pollution from all known sources		expected to be by 31 st May 2030.
1.5 Develop an Air Quality Model Application	By the end of 2032, DfI will have developed and added an Air Quality module application to the Department for Infrastructure’s bespoke NI Transport Emissions Model (TEM). DfI will engage with DAERA on what pollutants will be modelled.	Comprehensive evidence base and a better understanding of data, and improved legislation and: - Understanding how DfI’s strategic approach to reducing emissions will support air quality objectives - Prioritisation of interventions to reduce transport emissions	Lead - DfI Partners: DAERA	By the end of 2032

Strategic Objective 2 - Improve legislation

Actions	How we will do this	Impacts	Lead Department and Potential delivery Partner(s)	Date for completion of action
2.1 Consult on new PM_{2.5} and PM₁₀ limit values and make relevant legislative changes	DAERA will consult on secondary legislation to bring into operation the following WHO interim target 4 annual averages to be met by 1 January 2028 for particulate matter:	- Improved legislation in keeping with World Health Organisation Guidelines and closer alignment with Ireland and other jurisdictions in the UK. - Better public health protection, particularly for	Lead - DAERA	Regulations laid by end of 2026 to ensure compliance date of 1 January 2028

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

	• PM_{2.5} 10µg/m³ as an annual average in line with WHO Interim Target 4 (from 25µg/m³ at present) • PM₁₀ 20µg/m³ as an annual average in line with WHO Interim Target 4 (from 40µg/m³ at present) • Annual average target value of 8 µg/m³ for PM_{2.5} This will be set out in new secondary legislation which will amend the Air Quality Standards Regulations (Northern Ireland) 2010; and Air Quality Regulations (Northern Ireland) 2003.	those with respiratory or circulatory disease and the most vulnerable in our community, including the very young and the very old • A potential rise in Local Air Quality Management (LAQM) Air Quality Management Area (AQMA) designations, which will need air quality action plans to be drafted by District Councils and implemented by a range of entities including NI government departments		
2.2 Review and simplify air quality policy monitoring terms for the public	By the end of December 2028, DAERA will undertake a review of the use of technical definitions and terms used within air quality policy and monitoring regimes. This review will aim to simplify these terms and make this information more accessible for the public.	• Improved legislation; a better understanding of data; and increased public awareness and understanding • Simplified legal and technical air quality definitions • Greater public understanding of air pollution which is as easily understood as possible	Lead - DAERA	By the end of December 2028
2.3	Within six months of responses being shared by DEFRA, DAERA will	• Improved legislation; a better understanding of data;	Lead - DAERA	Within six months of

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

DAERA will work with the UK Government to analyse the consultation responses to the 2026 UK wide consultation on solid fuel burning	analyse the Northern Ireland specific responses to the 2026 UK wide consultation. This consultation gathered views on - new smoke emission rates for appliances in SCAs, health and emissions labelling for stoves and health labelling on the packaging of solid fuels. This analysis will determine further options which could be taken forward in Northern Ireland by DAERA, DoH and DfE, which may require new UK wide legislation and consent from the relevant Department in Northern Ireland.	increased public awareness and understanding. - Better public health protection, particularly for those with respiratory or circulatory disease and the most vulnerable in our community, including the very young and the very old - Reduced air pollution from all known sources	Partners: DfE DoH DEFRA	responses being shared by DEFRA
--	---	--	----------------------------------	---------------------------------

Strategic Objective 3 - Raise awareness and bring about Behavioural Change

Actions	How we will do this	Impacts	Lead Department and Potential delivery Partner(s)	Date for completion of action
3.1 Launch Air Quality Awareness and Behaviour Change Campaigns	DAERA will develop and launch an awareness and behaviour change campaign, for each year for the duration of this Strategy. DAERA will lead these campaigns, assisted by other NICS Departments.	- Increased public awareness of air quality issues, leading to people taking personal actions to improve air quality - A better-informed society which is capable of making healthier lifestyle decisions - Better public health protection, particularly for	Lead – DAERA Partners: DoH PHA DfI DfE DE Other NICS Departments	One campaign each year until 2032

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

		the most vulnerable in our community • A sense of ownership of the problem by individuals, and positive behaviour change	District Councils Non-Government Organisations	
--	--	---	---	--

Strategic Objective 4 – Work towards zero pollution

Actions	How we will do this	Impacts	Lead Department and Potential delivery Partner(s)	Date for completion of action
4.1 Achieve a fair and just transition to phasing out of coal, manufactured solid fuels and unseasoned wood for home heating	By the end of 2027, DAERA will issue a ‘Call for Evidence’, to seek views on bringing forward secondary legislation, to restrict or phase out coal and/or, manufactured solid fuels, and/or unseasoned wood. Alongside any proposals to phase out or restrict solid fuel burning, DAERA will work with other government departments to ensure support is in place to deliver a Just Transition to cleaner, decarbonised heating that will positively impact air quality.	- More robust and representative data - Increased granularity of data - Better public health protection, particularly for the most vulnerable - Improved awareness of the adverse health impacts of using solid fuels.	Lead – DAERA Partners: DfE	Call for evidence issued by the end of 2027

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

4.2 Produce Local Draft Transport Plans	Dfi will publish local draft Transport Plans covering Belfast and the Northwest for consultation (by December 2026). Publication of the final Local Transport Plans by December 2027.	• Reduced air pollution at source • Plans that are used effectively to plan the transport network’s development between now and 2035 • Plans that ensure that a strategic approach is being taken, rather than a scheme-by-scheme approach, to re-balancing the network	Lead - Dfi	By the end of December 2027
4.3 Conduct diesel particulate filters tests	By 2026 the Driver and Vehicle Agency (DVA) will begin the introduction of a diesel emissions Particulate Number (PN) test on all cars and light goods vehicles registered from 1 January 2013.	• Comprehensive evidence base and a better understanding of data, and improved legislation • Establishing a baseline of current pollutant levels • Reduced pollution from vehicles of MOT age • Initially capturing around 65% of the diesel cars and light goods vehicles (370,000) subject to MOT testing in Northern Ireland • increased capture as younger diesel vehicles continue to join the MOT fleet	Lead – Dfi Partner: DVA	By the end of December 2026

Strategic Outcome 5 – Deliver Change through Partners

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

Actions	How we will do this	Impacts	Lead Department and Potential delivery Partner(s)	Date for completion of action
5.1 Establish a Northern Ireland Clean Air Forum	A Clean Air Forum will be established within three months of the launch of the strategy.	• Strong working partnership; • An effective forum that acts as a link between neighbouring government jurisdictions, with a focus on enhancing cooperation north-south, east-west air pollution matters; • Proposals on emerging issues such as indoor air quality	Lead - DAERA Partners: NICS Departments, in particular DfE, DfI, DoH & DfC NI District Councils Non-Government Organisations	To be established within three months of the launch of the Clean Air Strategy
5.2 Increase investment in Active Travel	DfI will increase investment in active travel to 10% of the overall transport budget by 2030, primarily through the implementation of the Active Travel Delivery Plan, the Belfast Cycling Network Delivery Plan, and the Strategic Plan for Greenways and continue to promote active travel through ongoing engagement with schools.	• Strong partnership working to enable and encourage the uptake of active travel through the provision of high-quality infrastructure that can provide an attractive alternative to the private car for shorter journeys	Lead - DfI Partners: Active travel stakeholders	By the end of December 2030

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

5.3 Deliver a transboundary air pollution collaborative project (PEACEPLUS)	By May 2029 DAERA as an observer providing policy advice and NIEA, as an associated partner, will have participated in and delivered the €6.5M PEACEPLUS Clean Air (PEACE-Air) project focussing on solid fuel, transport and ammonia emissions. It will focus on 4 specific work packages (WP): WP1: Solid fuel burning WP2: Transport-related air pollution WP3: Ammonia pollution and impacts on biodiversity and sensitive ecosystems Speciation of particulate matter. WP4: Cross-cutting strategies for community engagement, capacity building, and legacy	• Strong partnership working; and Comprehensive evidence base and a better understanding of data. • More effective joint strategies and action plans • Uptake of strategies and action plans by organisations • Pilot Actions developed and implemented • Organisations cooperating across borders, including after project completion • Investment via PEACEPLUS funding • increased and improved monitoring and data	Lead - DAERA Partners: NIEA DoF DCEE SEUPB	By the end of May 2029
5.4 Establish an Air Quality Common Framework	By 2032 DAERA will have worked with DEFRA and the other devolved governments, to finalise, agree and implement the UK Air Quality Common Framework following EU Exit.	• Strong partnership working, and improved legislation. • Better East/West policy alignment • Coordinated approach to East/West transboundary air pollution	Lead - DAERA Partners: TEO DEFRA Scottish Government, Welsh Government	By the end of December 2032

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

5.5 Improve policy integration between air quality, noise and net zero	By 2030 when reviewing policy and technical guidance relating to air quality, net zero and environmental noise, DAERA will ensure improved connectivity between air quality, net zero and noise in its policies. This will include Local Air Quality Management Technical Guidance (TG22) and Northern Ireland Policy Guidance PGNI (09).	• Strong working partnership. • Improved quality of life • Avoidance of unintended consequences impacts of policies/measures	Lead - DAERA Partners: All NICS Departments	By the end of December 2030
5.6 Review the LAQM process and associated guidance	Following a review of the air quality monitoring network and engagement with councils on improvement of the network, DAERA will, by 2032 review the Local Air Quality Management (LAQM) process for Northern Ireland.	• A fit for purpose Local Air Quality Management (LAQM) regime that maximises impact. • More efficient use of resources • Clarity and support for District Councils in their roles as ‘relevant authorities’ • Up to date guidance to help improve air quality management, monitoring and review	Lead - DAERA Partners: District Councils DEFRA	By the end of December 2032
5.7 Review the Local Air Quality Management (LAQM) Grant	Following publication of the revised Local Air Quality Management (LAQM) Policy and Technical Guidance (TG22) by the end of December 2029, DAERA will review	• Fit for purpose Local Air Quality Management (LAQM) that maximises impact; and strong partnership working.	Lead - DAERA Partners: District Councils	Review the LAQM Guidance by the end of December 2029;

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

	the LAQM Grant by the end of December 2031, at the end of the current grant duration.	• Clear rates of financial support available to district councils • Improved air quality monitoring, review, assessment and management and effective application of AQMAs • Targeted use of funding to benefit of human health and the environment		Review the LAQM Grant by the end of December 2032
--	---	--	--	---

Annex B - Why clean air is important

Air pollution – impacts on human health

Some air pollutants, such as Polycyclic Aromatic Hydrocarbons (PAHs), can pass through the placenta⁴¹. The International Agency for Research on Cancer (IARC)⁴², has identified outdoor air pollution as a leading environmental cause of cancer deaths.

PAHs from incomplete burning of oil, coal, gas or wood are one example of a teratogen. PAHs are present in Northern Ireland.

In a stark report from the British Heart Foundation Northern Ireland (BHF NI) released in 2023, Air Pollution and Mortality on the Island of Ireland⁴³, reports that 936 deaths in Northern Ireland were attributed to fine particulate matter (PM_{2.5}) air pollution, with 314 of these deaths being attributed to circulatory diseases. Based on these unacceptable figures, it is clear that we must do more to save lives and improve our air quality. This also aligns with intentions in the consultation on a draft Fuel Poverty Strategy, which notes that making our homes more sustainable will help create warmer, healthier houses, and reduce air pollution⁴⁴.

Some communities and people are more vulnerable to the impacts of air pollution than others. Vulnerabilities are typically most evident among those living in the most deprived communities in the UK who are already at risk of health inequality⁴⁵. This is associated with poorer health outcomes and can compound other environmental stressors such as noise pollution.

⁴¹ UK Health Security Agency, Guidance Benzo[a]pyrene or PAHs: toxicological overview, 2025, accessed 01/05/26, <https://www.gov.uk/government/publications/benzoapyrene-properties-incident-management-and-toxicology/benzoapyrene-or-pahs-toxicological-overview>

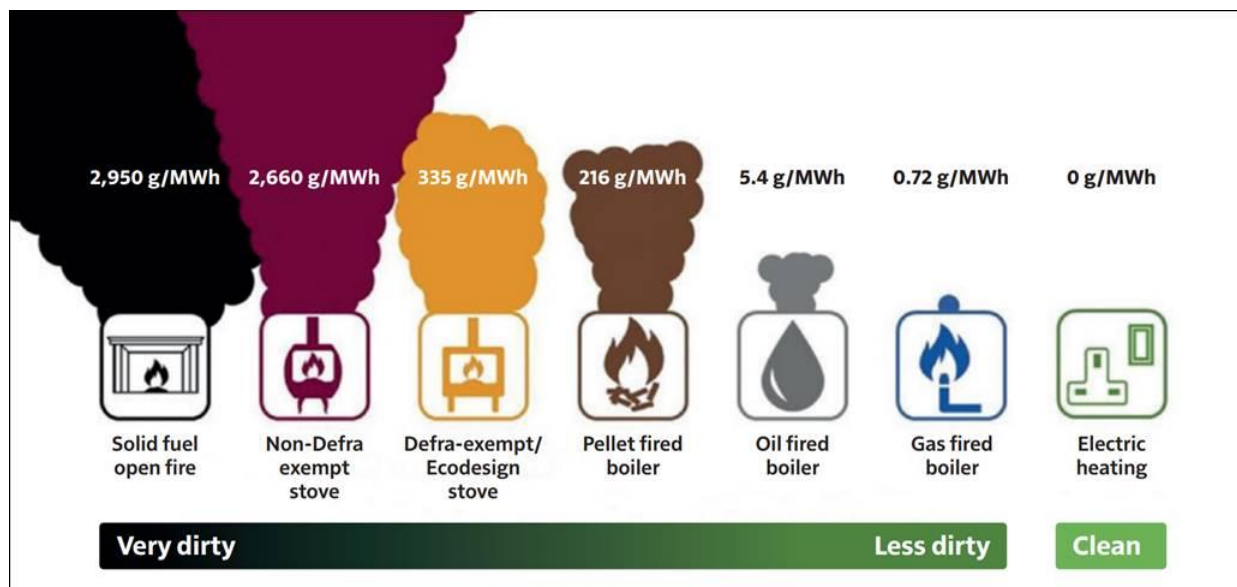
⁴² International Agency for Research on Cancer (IARC) 2013, accessed 01/05/26, https://www.iarc.who.int/wp-content/uploads/2018/07/pr221_E.pdf

⁴³ BHF NI Air Pollution and Mortality on the Island of Ireland 2023, Briefing Summary, accessed 01/05/26, <https://www.bhf.org.uk/-/media/files/what-we-do/in-your-area-northern-ireland-pages/air-pollution-and-mortality-on-the-island-of-ireland-briefing-summary.pdf?rev=a17e3cf0058a48fe8d7def7439b45873&hash=0C39AAED0D85E6F07D3B703BA2A1FF34>

⁴⁴ DfC Consultation on a draft Fuel Poverty Strategy December 2024, accessed 01/05/26, <https://www.communities-ni.gov.uk/sites/default/files/2024-12/dfc-consultation-on-draft-fuel-poverty.pdf>

⁴⁵ Royal College of Physicians. A breath of fresh air: responding to the health challenges of modern air pollution. RCP, 2025 accessed 01/05/26, <https://www.rcp.ac.uk/media/hvbeolvx/21072025-update-rcp-full-report-a-breath-of-fresh-air.pdf>

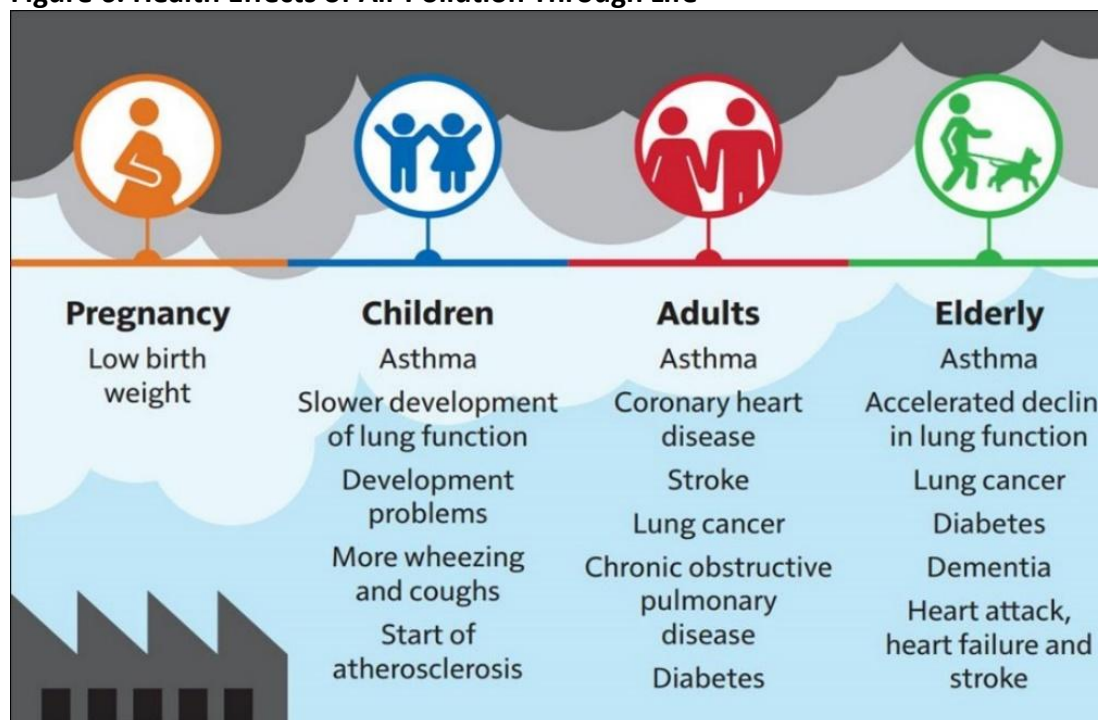
Figure 5. The relative PM_{2.5} emissions from domestic heating methods⁴⁶



The updated 2021 World Health Organisation (WHO) Global Air Quality Guidelines (AQGs) provides recommendations on air quality guideline levels and 4 interim targets (IT) for key air pollutants. Whilst these challenging new levels and targets are not legal obligations; their merit is clear in protecting human health. We will all need to make changes to deliver the necessary improvements, and commitment is required across society, through changed habits, as well as innovation. This ambitious Strategy will begin our journey towards reaching IT 4 and the final AQGs.

⁴⁶ Chief Medical Officer’s Annual report 2022, Air Pollution, accessed 01/05/26, <https://assets.publishing.service.gov.uk/media/639aeb81e90e0721889bbf2f/chief-medical-officers-annual-report-air-pollution-dec-2022.pdf>

Figure 6. Health Effects of Air Pollution Through Life⁴⁷



Air Pollution - Other Impacts

Improving human health and quality of life is the primary driver for this draft strategy. However, air pollution can have damaging impacts on not only human health, but also on productivity, amenity and the health of the environment. These detrimental impacts have associated economic and/or social costs⁴⁸. Higher levels of air pollution, as measured by PM_{2.5} concentration as an example, exert a substantial direct burden on the economy by reducing output per worker⁴⁹. This implies that reducing air pollution could yield considerable economic dividends in addition to the well-established health benefits.

⁴⁷ Chief Medical Officer’s Annual report 2022, Air Pollution, accessed 01/05/25, <https://assets.publishing.service.gov.uk/media/639aeb81e90e0721889bbf2f/chief-medical-officers-annual-report-air-pollution-dec-2022.pdf>

⁴⁸ Report for DEFRA, Air Quality damage cost update 2023, accessed 01/05/26, https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2301090900_Damage_cost_update_2023_Final.pdf

⁴⁹ OECD, The economic cost of air pollution: evidence from Europe, 2020, accessed 01/05/26, [https://one.oecd.org/document/ECO/WKP\(2019\)54/En/pdf](https://one.oecd.org/document/ECO/WKP(2019)54/En/pdf)

The Department for Environment, Food and Rural Affairs (DEFRA) has developed ‘damage costs’ guidance⁵⁰ to enable proportionate analysis when assessing impacts on air quality. Damage costs are a set of impact values, measured per tonne of emission by pollutant. Damage costs are produced for five pollutants, nitrogen oxides (NO_x), particulate matter (PM_{2.5}), sulphur dioxide (SO₂), volatile organic compounds (VOCs), and ammonia (NH₃). Table 4 below sets out the latest damage cost values for air quality appraisal. The values shown are cost per tonne (£/t) national averages and are useful when carrying out air quality appraisals, or to illustrate impacts beyond health.

Table 4. 2025 Damage cost values

Pollutant	2025 Damage costs (£/t) national averages
NO _x	10,193
SO ₂	26,193
NH ₃	9,900
VOC	150
PM _{2.5}	114,411

Source; Report for DEFRA, Air Quality Damage Cost Update 2025⁴⁶

Air Pollution - Impact on ecosystems health

Poor air quality is also a major contributor to the long-term decline of biodiversity in the UK⁵¹ and can be particularly attributed to ammonia (NH₃) and nitrogen oxides (NO_x). The evidence in Northern Ireland from the last 50 years shows that the ongoing changes in the way we manage our land for agriculture, and the ongoing effects of climate change are having the biggest impacts on our wildlife⁵². Thus, the focus of ecosystem protection tends to be on nitrogen deposition, which is made up of NO_x from road transport and ammonia from agricultural activities, as well as levels of ammonia in ambient air. These are assessed in terms of damage thresholds: critical loads estimate the amount of nitrogen loading (deposition) beyond which adverse effects are seen on species composition, whilst critical levels represent ammonia concentrations in ambient air, beyond which direct damage to plant tissue occurs.

⁵⁰ DEFRA, Air quality appraisal: damage cost guidance, updated 28 April 2026, accessed 01/05/26, <https://www.gov.uk/government/publications/assess-the-impact-of-air-quality/air-quality-appraisal-damage-cost-guidance>

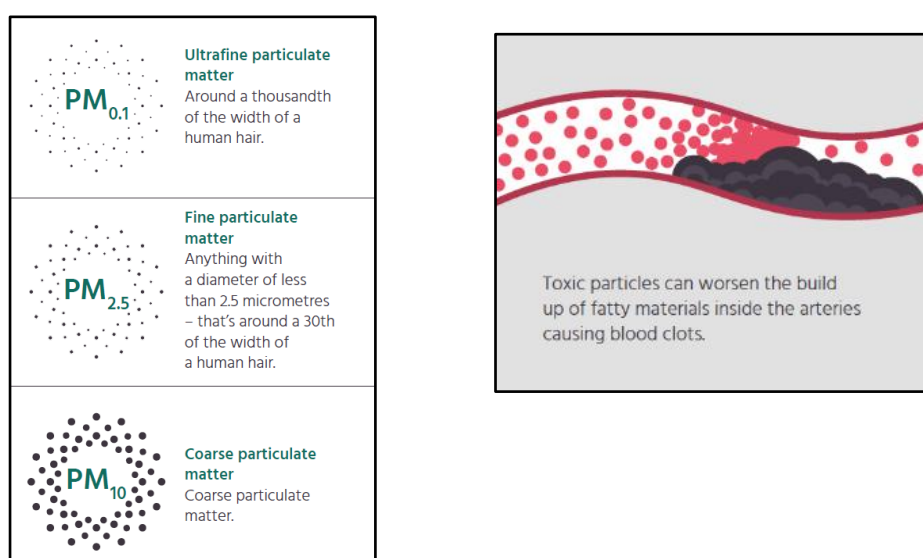
⁵¹ DEFRA Air Quality Strategy, Framework for local authority delivery, 2023, accessed 01/05/26, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1180706/Air_Quality_Strategy_Web.pdf

⁵² State of Nature Partnership NI 2023, accessed 01/05/26, <https://stateofnature.org.uk/countries/northern-ireland/>

Annex C - Air Quality in Northern Ireland, main pollutants, sources and current position

Particulate Matter (PM₁₀, PM_{2.5} and PM_{0.1}): Particulate Matter (PM) is a pollutant which is an important focus of this strategy. PM is mostly produced from combustion processes, like road transport and burning fuels for energy. It is categorised on the basis of the size of the particles. PM_{2.5} are particles with a diameter of less than 2.5µm, while PM₁₀ roughly equates to the mass of particles less than 10µm in diameter. The very smallest particles are ultrafine PM_{0.1} (particles smaller than 0.1 microns). The health effects of these particle sizes are not well understood, but ultra-fine particles in the PM_{0.1} range are believed to contribute to the overall toxicity of airborne particulate matter⁵³. The PEACE-Air project (see Action 5.3) aims to provide more information on the sources of PM in NI, including PM that may be formed as a secondary pollutant from ammonia emissions.

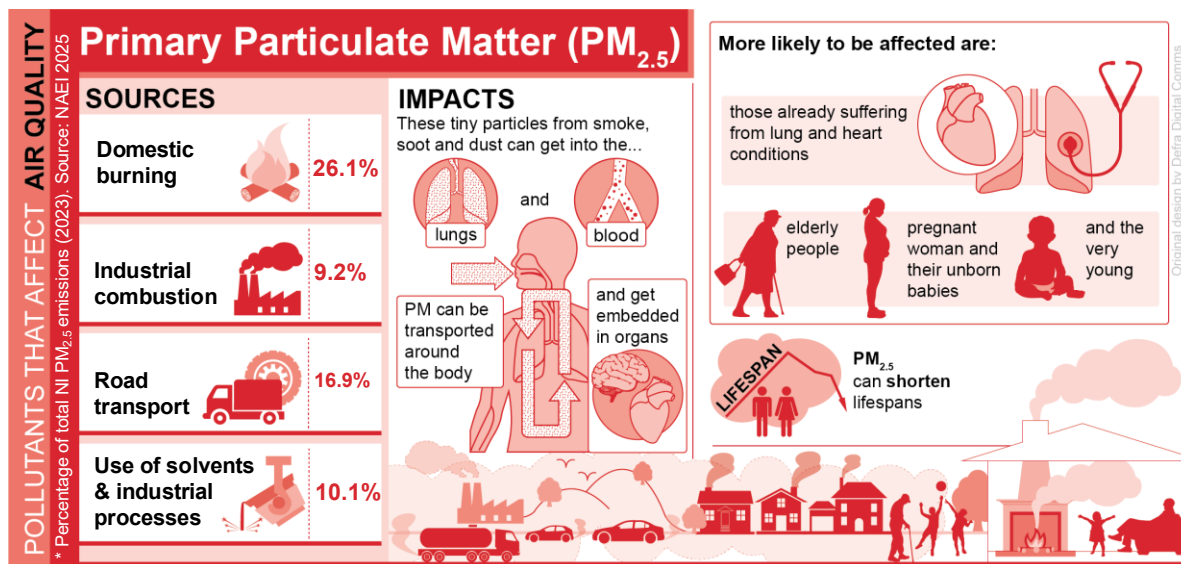
Figure 7. Illustration of particulate matter size ⁵⁴



⁵³ National Atmospheric Emissions Inventory, PM_{1.0} and PM_{0.1} (Finer particulates), accessed 01/05/26, <https://naei.energysecurity.gov.uk/node/75>

⁵⁴ BHF NI Air Pollution and Mortality on the Island of Ireland 2023, accessed 01/05/26, <https://www.bhf.org.uk/-/media/files/what-we-do/in-your-area-northern-ireland-pages/air-pollution-and-mortality-on-the-island-of-ireland-report.pdf?rev=7f884a2856784374928acb956f2706b9&hash=B6714D212095722B95909C93C2E03279>

Figure 8. Percentages of Particulate Matter (PM) emissions in Northern Ireland from different sources 2023 (Source of data: NAEI 2025)⁵⁵



PM_{2.5} causes harm to the heart and circulatory system, contributing to the development of new health problems or putting people with existing health conditions at increased risk of fatal events like a heart attack or stroke. PM_{2.5} is small enough to enter our lungs and pass into our bloodstream, causing damage that can increase the risk of potentially fatal heart attacks and strokes, especially in vulnerable people, and worsen existing heart conditions⁵⁶.

The toxic particles can worsen the build-up of fatty material within blood vessels. **There is considered to be no safe level of PM.** At present, PM_{2.5} remains the most suitable metric for evaluating the health impacts, and hence for regulating PM in the atmosphere⁵⁷.

Current situation: PM₁₀ and PM_{2.5} were measured at 13 sites and 10 sites respectively in Northern Ireland in 2024, and there were no exceedances of The Air Quality Standards Regulations (Northern Ireland) 2010 (AQS (NI) 2010) limit and target values or Air Quality Strategy objectives. However,

⁵⁵ National Atmospheric Emissions Inventory Air Pollutant Inventories for England, Scotland, Wales and Northern Ireland: 2005-2023, 19 September 2025, accessed 01/05/26, <https://naei.energysecurity.gov.uk/reports/air-pollutant-inventories-england-scotland-wales-and-northern-ireland-2005-2023>

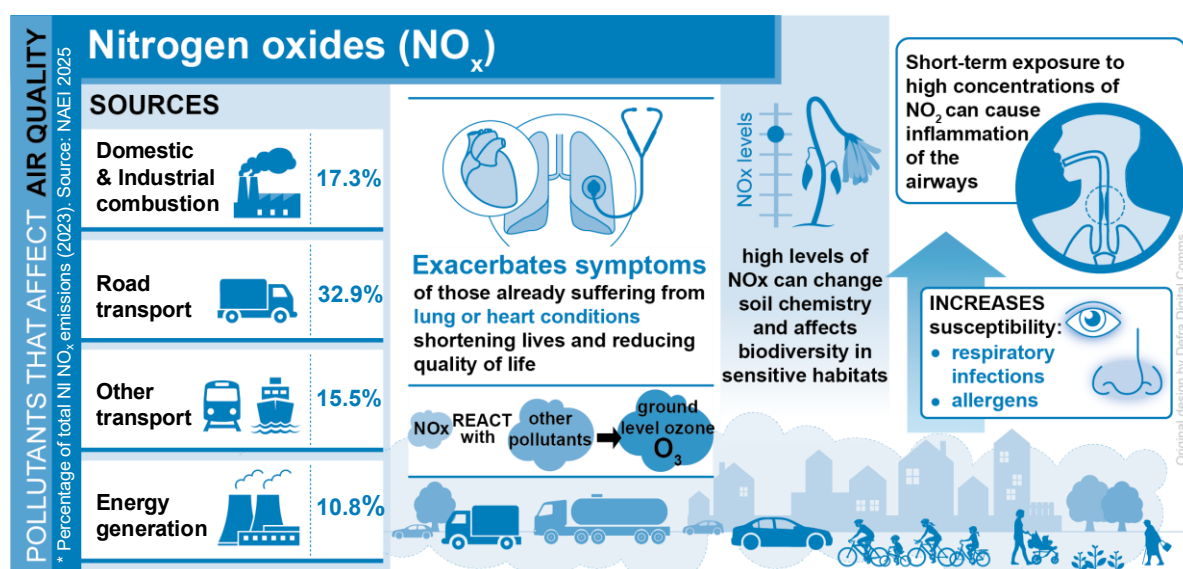
⁵⁶ BHF NI Air Pollution and Mortality on the Island of Ireland 2023, Briefing Summary, accessed 01/05/26, <https://www.bhf.org.uk/-/media/files/what-we-do/in-your-area-northern-ireland-pages/air-pollution-and-mortality-on-the-island-of-ireland-briefing-summary.pdf?rev=a17e3cf0058a48fe8d7def7439b45873&hash=0C39AAED0D85E6F07D3B703BA2A1FF34>

⁵⁷ UK Health Security Agency, 2022, accessed 01/05/26, <https://www.gov.uk/government/publications/particulate-air-pollution-health-effects-of-exposure/statement-on-the-differential-toxicity-of-particulate-matter-according-to-source-or-constituents-2022>

these limit values are not as stringent as the WHO final Air Quality Guideline (AQG). All sites, with the exception of the rural site at Lough Navar, exceeded the new WHO guideline for annual mean PM_{2.5} concentrations (5 µg m⁻³) in 2024.

Oxides of nitrogen (NO_x): all combustion in air produce oxides of nitrogen (NO_x) as by-products. NO_x is another pollutant which is an important focus of this strategy. Nitrogen dioxide (NO₂) and nitric oxide (NO) are both oxides of nitrogen and together are referred to as NO_x. NO, when emitted, is rapidly converted to NO₂ in the air.

Figure 9. Percentage of Nitrogen oxides (NO_x) emissions in Northern Ireland from different sources 2023 (Source of data: NAEI 2025)⁵⁸



Current Situation: NO₂ was measured at 16 sites in 2024 and there were no exceedances of the AQS (NI) 2010 limit values or Air Quality Strategy objectives. However, these limit values are not as stringent as the WHO final Air Quality Guideline (AQG), so more needs to be done to meet the AQG annual mean as all sites are non-compliant except Ballymena Ballykeel and Derry/ Londonderry Rosemount.

⁵⁸ National Atmospheric Emissions Inventory Air Pollutant Inventories for England, Scotland, Wales and Northern Ireland: 2005-2023, 19 September 2025, accessed 01/05/26, <https://naei.energysecurity.gov.uk/reports/air-pollutant-inventories-england-scotland-wales-and-northern-ireland-2005-2023>

Ozone (O₃): O₃ reduces lung function and can trigger inflammation of the respiratory tract, causing symptoms such as increased incidence of respiratory symptoms, coughing and chest tightness. Ozone reduces lung function and increases incidence of respiratory symptoms, respiratory hospital admissions and mortality⁵⁹. Ozone can also irritate the eyes and nose. Very high levels can damage airways leading to inflammatory reactions. Ground level ozone is regarded as a harmful pollutant in contrast to stratospheric ozone, where the ‘ozone layer’ has a protective effect on human health. Ground level ozone can cause damage to many plant species leading to loss of yield and quality of crops, damage to forests and adverse impacts on biodiversity.

Ozone levels vary annually due to weather conditions and transboundary transport. O₃ can be removed from the air by a process involving nitric oxide (NO). This lowers NO₂ concentrations in urban areas, and so O₃ concentrations are often highest in rural areas⁶⁰.

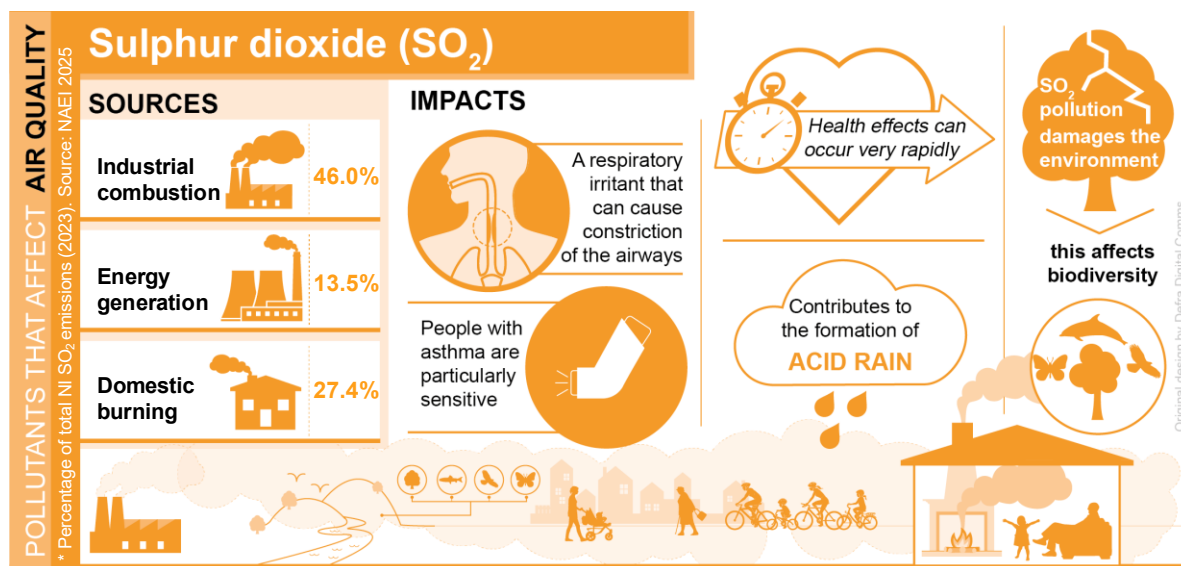
Current Situation: levels of O₃ in Northern Ireland vary from year to year. Ozone was measured at 3 sites in Northern Ireland in 2024. There were no exceedances of the Air Quality Standards Regulations objective for human health, but the maximum daily 8-hour mean exceeded 100 µg m⁻³ on one day at Lough Navar and on two days at both Belfast Centre Derry/Londonderry Rosemount. Therefore, all three sites met the AQS Objective in 2024, as well as the less stringent Air Quality Standards Regulations target value. All sites were non-compliant for the WHO Air Quality Guidelines 2021.

Sulphur dioxide (SO₂): emissions are dominated by combustion of fuels containing sulphur, such as coal and heavy oils by power stations and refineries. In Northern Ireland, household burning of coal is also a significant source. SO₂ causes constriction of the airways and people with asthma and chronic lung disease are particularly sensitive. SO₂ is also a precursor to secondary PM and therefore contributes to the ill-health effects caused by PM₁₀ and PM_{2.5}.

⁵⁹ The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Volume 1, 2007, page 17, accessed 01/05/26,
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf

⁶⁰ DAERA Effects of Covid-19 Restrictions on Air Quality in Northern Ireland: Summary Report, 2021, accessed 01/05/26,
<https://www.airqualityni.co.uk/reports>

Figure 10. Percentage of sulphur dioxide (SO₂) emissions in Northern Ireland from different sources 2023 (Source of data: NAEI 2025)⁶¹



High concentrations of SO₂ can damage ecosystems by direct toxic effects on plant tissue. Deposition of pollution derived from SO₂ can also contribute to acidification of soils and waters and a subsequent loss of biodiversity.

Current situation: SO₂ was measured at five sites in 2024 in Northern Ireland and there were no exceedances of the Air Quality Standards Regulations limit values or Air Quality Strategy objectives. All sites were also compliant with the WHO Air Quality Guidelines 2021.

Polycyclic aromatic hydrocarbons (PAHs): come in many types, from a variety of sources. Occupational exposure to PAHs can result in increased incidences in lung, skin and possibly bladder cancer. Lung cancer is most obviously linked to exposure to PAHs through inhaled air. This Strategy uses B[a]P as a marker for the most hazardous PAHs. The main source of B[a]P in Northern Ireland is domestic coal and wood burning. Road transport is another source.

Current situation: B[a]P was measured at four sites in 2024 in Northern Ireland and there were no exceedances of the Air Quality Standards Regulations target value. However, three sites exceeded the more stringent AQS annual mean objective of 0.25 ng m⁻³, which was to have been achieved by 31 December 2010; only Kilmakee Leisure Centre achieved compliance with this more stringent objective in 2024. There is no WHO Air Quality Guideline 2021 for this pollutant outdoors.

⁶¹ National Atmospheric Emissions Inventory Air Pollutant Inventories for England, Scotland, Wales and Northern Ireland: 2005-2023, 19 September 2025, accessed 01/05/26, <https://naei.energysecurity.gov.uk/reports/air-pollutant-inventories-england-scotland-wales-and-northern-ireland-2005-2023>

A range of other pollutants in Northern Ireland include carbon monoxide (CO), benzene (C₆H₆), and the elements lead (Pb), arsenic, cadmium and nickel. The Air Quality Standards Regulations (Northern Ireland) 2010 limit values, target values and corresponding objectives have been met for these pollutants and elements in 2024. Carbon monoxide was also compliant with the 2021 WHO Air Quality Guidelines level.

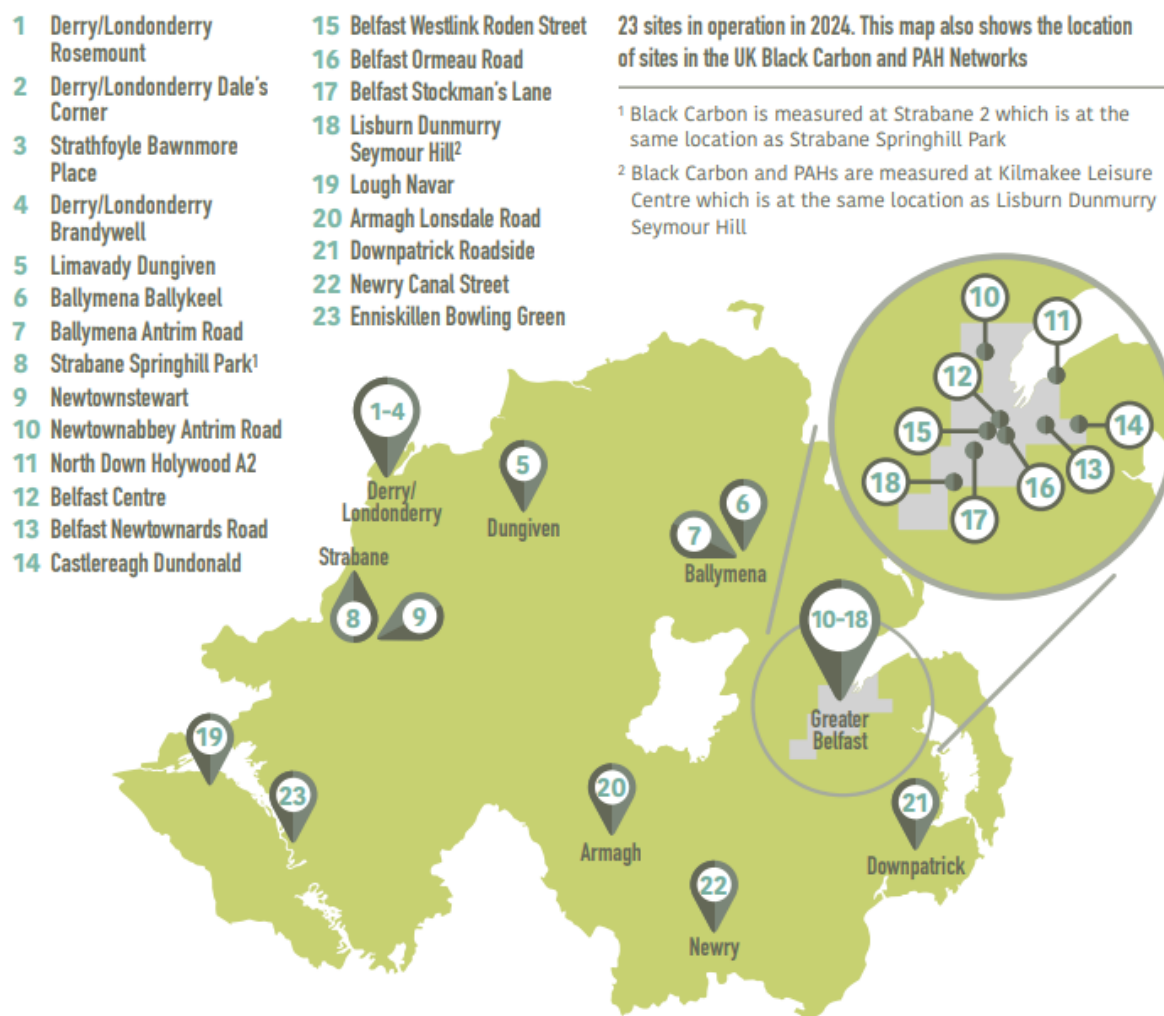
Air quality data and information

The latest measured real-time air quality results from across Northern Ireland are presented in an interactive map on DAERA’s Northern Ireland Air website www.airqualityni.co.uk, which also contains an archive of data from 1986 to the present day. Air pollution forecasts are included on the site along with a free App available to download. There is also the option to subscribe to free air pollution alerts, issued when air pollution is high. A summary of air quality in Northern Ireland is presented in DAERA’s Air Pollution in Northern Ireland 2024 report⁶².

⁶² DAERA Air Pollution in Northern Ireland 2024 report, accessed 01/05/26, <https://www.airqualityni.co.uk/uploads/reports/air-pollution-in-northern-ireland-2024-issue1-print-optimised-6915a4eaa1e5b061262632.pdf>

Northern Ireland air pollution summary of compliance

Figure 11. Map of Northern Ireland Air Quality Monitoring Stations



A summary of compliance status for the pollutants measured in Northern Ireland with the limit values and target values of the Air Quality Standards Regulations (NI) 2010, the UK Air Quality Strategy Objectives and the WHO Air Quality Guidelines 2021, is shown in Table 5 below.

Table 5. Summary of compliance status for pollutants measured in Northern Ireland in 2024⁶³

Pollutant and units	Monitoring sites	Averaging time	Air Quality Standards Regulations (Northern Ireland) Limits/Targets	AQSR Compliance	UK Air Quality Strategy Objective	AQS Objective Compliance	WHO Air Quality Guidelines 2021	WHO AQ Guideline Compliance

⁶³ DAERA Air Pollution in Northern Ireland 2024 report, accessed 01/05/26, <https://www.airqualityni.co.uk/uploads/reports/air-pollution-in-northern-ireland-2024-issue1-print-optimised-6915a4eaa1e5b061262632.pdf>

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

PM₁₀ µg m⁻³	Armagh Lonsdale Road, Ballymena Ballykeel, Belfast Centre, Belfast Stockman's Lane, Derry/Londonderry Rosemount, Enniskillen Bowling Green (annualised), Lisburn Dunmurry Seymour Hill, Lough Navar, Newry Canal Street, Newtownstewart, North Down Hollywood A2, Strabane Springhill Park, Strathfoyle Bawnmore Place	Annual Mean	40	Compliant	40	Compliant	15	Non-compliant at the following sites: Belfast Stockman's Lane Newry Canal Street
		24-hour	50 (not to be exceeded more than 35 times a year)	Compliant	50 (not to be exceeded more than 35 times a year)	Compliant	45 (99 th % percentile of 24-hour means i.e. 3-4 exceedance days/year))	Compliant
PM_{2.5} µg m⁻³	Ballymena Ballykeel, Belfast Centre, Derry/Londonderry Rosemount, Enniskillen Bowling Green (annualised), Lisburn Dunmurry Seymour Hill, Lough Navar, Newtownstewart, North Down Hollywood A2, Strabane Springhill Park, Strathfoyle Bawnmore Place.	Annual Mean	25	Compliant	20	Compliant	5	Non-compliant at all sites except Lough Navar
		24-hour	-	-	-	-	15 (99 th percentile of 24-hour means i.e. 3-4 exceedance days/year)	Non-compliant at all sites except Lough Navar
NO₂ µg m ⁻³	Armagh Lonsdale Road, Ballymena Antrim Road, Ballymena Ballykeel, Belfast Centre, Belfast Newtownards Road, Belfast Ormeau Road, Belfast Stockman's Lane, Belfast Westlink Roden Street, Castlereagh Dundonald, Derry/Londonderry Dale's Corner, Derry/Londonderry Rosemount, Downpatrick Roadside, Limavady Dungiven, Newry Canal Street, Newtownabbey Antrim Road, North Down Hollywood A2	Annual Mean	40	Compliant	40	Compliant	10	Non-compliant at all sites except Ballymena Ballykeel and Derry/Londonderry Rosemount.
		24-hour	-	-	-	-	25 (99 th percentile of 24-hour means i.e. 3-4 exceedance days/year)	Non-compliant at all sites except Ballymena Ballykeel.
		1-hour	200 (not to be exceeded more than 18 times a calendar year)	Compliant	200 (not to be exceeded more than 18 times a calendar year)	Compliant	200 (from previous 2005 guidelines, still valid)	Compliant

Clean Air Strategy for Northern Ireland to 2032
“Better Air Quality, Across Northern Ireland”

O₃ µg m⁻³	Derry/Londonderry Rosemount, Lough Navar, Belfast Centre	Peak season Mean	-	-	-	-	60 (Avg. of	60 (Avg. of
		Daily maximum 8-hour running mean	120 (not to be exceeded more than 25 times a year, averaged over 3 years)	Compliant	100 (not to be exceeded more than 10 times a year)	Compliant	100 (99th	Compliant
SO₂ µg m⁻³	Ballymena Ballykeel, Belfast Centre, Derry/Londonderry Rosemount, Strabane Springhill Park	24-hour	125 (not to be exceeded more than 3 times a year)	Compliant	125 (not to be exceeded more than 3 times a year)	Compliant	40 (99th percentile of 24-hour means)	Compliant
		1-hour	350 (not to be exceeded more than 24 times a year)	Compliant	350 (not to be exceeded more than 24 times a year)	Compliant	-	-
		15-min	-	-	266 (not to be exceeded more than 35 times a year)	Compliant	-	-
CO mg m⁻³	Belfast Centre	24-hour	-	-	-	-	4	Compliant
		Daily maximum 8-hour running mean	10	Compliant	10	Compliant	10	Compliant
		1-hour	-	-	-	-	35	Compliant
		15-minute	-	-	-	-	100	Compliant
Benzene µg m⁻³	Belfast Centre	Annual Mean	5	Compliant	3.25 as max. running annual mean	Compliant	-	-
Pb µg m⁻³	Belfast Centre	Annual Mean limit value	0.5	Compliant	0.5, 0.25	Compliant	-	-
As ng m⁻³	Belfast Centre	Annual Mean target value	6	Compliant	-	-	-	-
Cd ng m⁻³	Belfast Centre	Annual Mean target value	5	Compliant	-	-	-	-
Ni ng m⁻³	Belfast Centre	Annual Mean target value	20	Compliant	-	-	-	-
Benzo[a]pyrene ng m⁻³	Armagh Lonsdale Road, Ballymena Ballykeel,	Annual Mean target value	1	Compliant	0.25	Non-compliant at all sites except Kilmakee	-	-

	Derry/Londonderry Brandywell, Kilmakee Leisure Centre					Leisure Centre		
--	--	--	--	--	--	-------------------	--	--

Figure 12. Image of DAERA’s Air Aware poster, in partnership with DoH



The website includes a catalogue of technical reports from DAERA and the District Councils, as well as the annual Air Pollution in Northern Ireland reports. District Council reports focus on the LAQM assessments and Air Quality Action Plans.

Further information on air quality in Northern Ireland is available in the Northern Ireland Air Website:
<https://www.airqualityni.co.uk/>

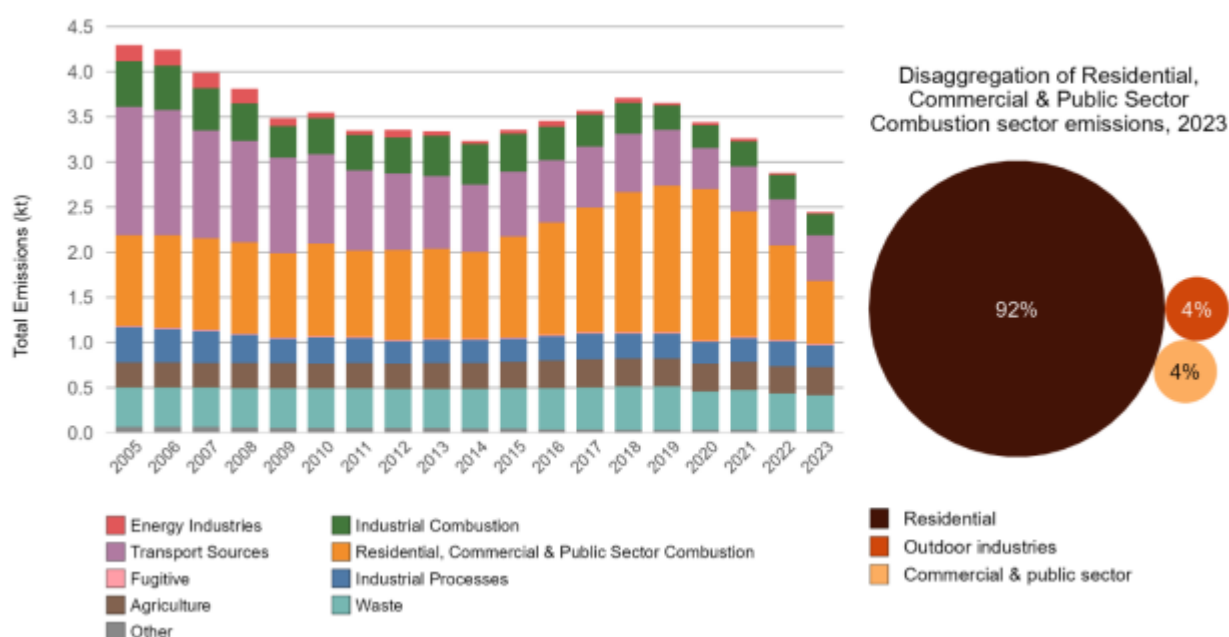
Annex D – Trends on Northern Ireland Emissions by sector⁶⁴

PM_{2.5} Emissions in Northern Ireland in 2023 accounted for 4% of the UK. Emissions have decreased by 43% since 2005. PM_{2.5} emissions have a large number of significant sources. Industrial process emissions tend to produce coarser PM fractions and as such, combustion emissions are of greater importance for PM_{2.5} compared to PM₁₀.

The overall decrease in PM_{2.5} emissions from 2005 is primarily driven by the reduction of coal and solid fuels burned in residential combustion. PM_{2.5} emissions decreased by 15% from 2022 to 2023. The main sub-sector driving this change is stationary domestic combustion, which decreased by 35%. This is primarily driven by the reduction of coal and solid fuels being used to heat residential homes according to the latest DEFRA survey on Domestic Burning Practices in the UK (DEFRA, 2025)⁶⁵.

The transport fleet has gradually decreased due to more stringent exhaust emissions standards over time. The phasing out of coal, better technologies, stricter regulation for industrial combustion and energy production also decreased PM_{2.5} emissions.

Figure 13. PM_{2.5} Emissions in Northern Ireland 2005-2023 (published September 2025)



⁶⁴ National Atmospheric Emissions Inventory Air Pollutant Inventories for England, Scotland, Wales and Northern Ireland: 2005-2023, 19 September 2025, accessed 01/05/26, <https://naei.energysecurity.gov.uk/reports/air-pollutant-inventories-england-scotland-wales-and-northern-ireland-2005-2023>

⁶⁵ DEFRA, 2025, Quantification of the 2022-2023 Defra Domestic Burning Survey, accessed 01/05/26, <https://sciencesearch.defra.gov.uk/ProjectDetails?ProjectId=21760>

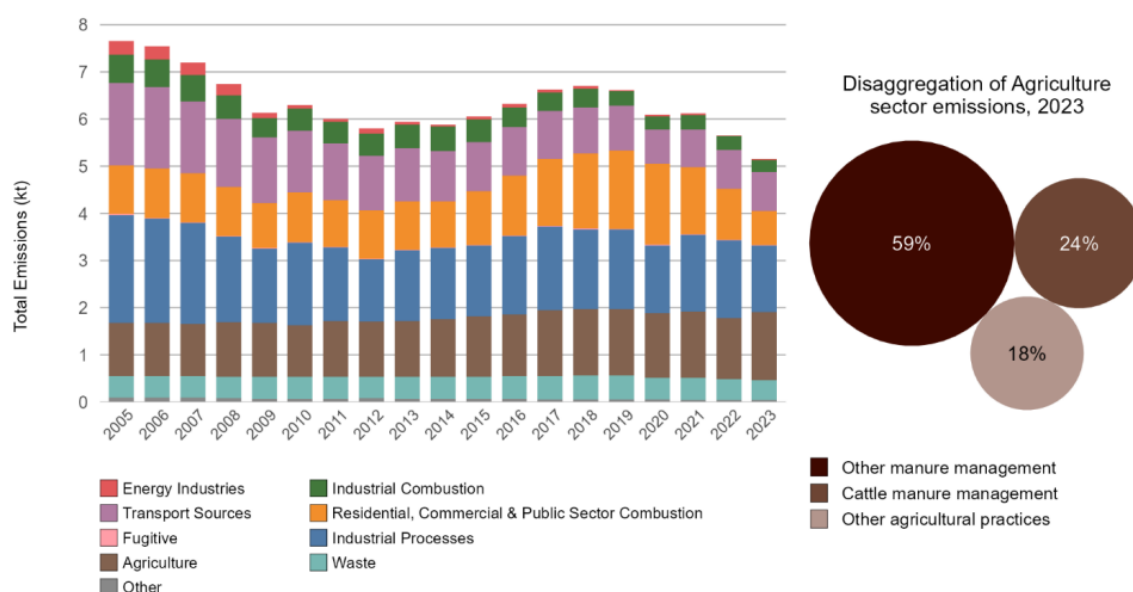
PM₁₀ Emissions in Northern Ireland, accounted for 5% of the UK total IN 2023 and have decreased by 33% since 2005. PM₁₀ emissions decreased by 9% from 2022 to 2023. Although historically the largest PM₁₀ source was the industrial processes sector, the agriculture sector makes up the largest contribution to PM₁₀ emissions in the inventory in 2023.

The overall decrease in PM₁₀ emissions from 2005 is primarily due to vehicle emissions decreasing due to tighter emission standards, while non-exhaust PM₁₀ emissions from vehicles have been increasing due to increasing traffic activity. It is worth noting that travel restrictions in 2020 during the COVID-19 pandemic resulting in reduced traffic volumes.

In recent years, emissions from residential, commercial and public sector combustion have primarily increased, driven by increased wood fuel use in the residential sector. These two trends offset one another meaning that there is no major trend in PM₁₀ emissions across the time series.

As is the case for PM_{2.5}, the main sub-sector driving this change is stationary domestic combustion which decreased by 35%. This is primarily driven by the reduction of coal and solid fuels being used to heat residential homes according to the latest DEFRA survey on Domestic Burning Practices in the UK (DEFRA, 2025)⁶⁷.

Figure 14. PM₁₀ Emissions in Northern Ireland 2005-2023 (published September 2025)



The disaggregated emissions chart may not add up to 100% due to rounding

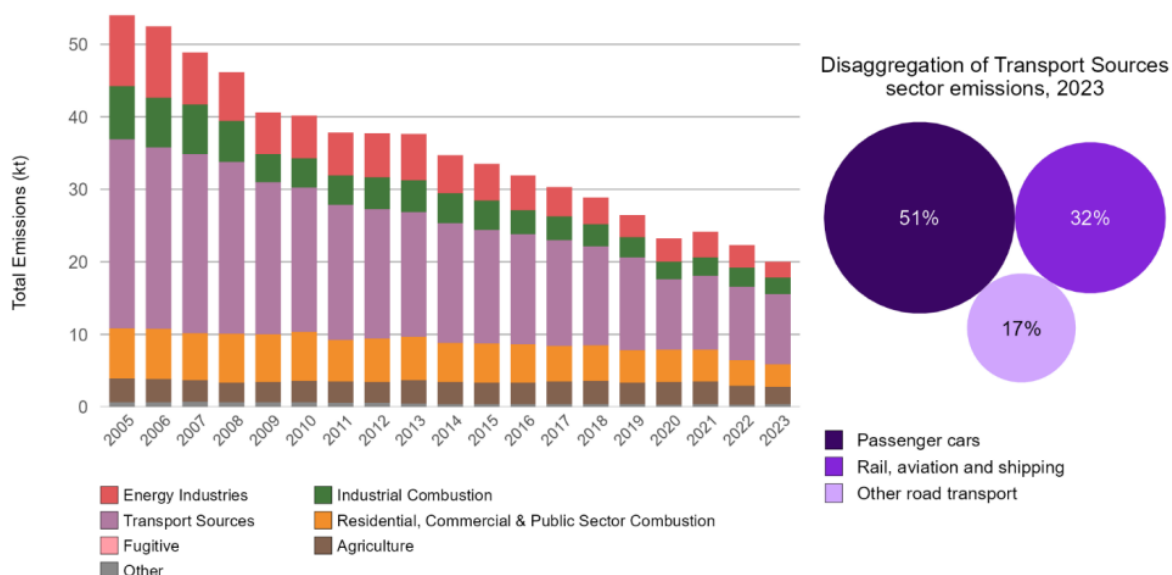
Nitrogen oxides emissions in Northern Ireland declined by 63% since 2005 and accounted for 3% of the UK total in 2023. Nitrogen oxides emissions decreased by 10% from 2022 to 2023. The main sub-sector driving this change is power generation, which decreased by 31%.

The transport sources sector makes up the largest contribution to nitrogen oxides emissions in the inventory throughout the time series. Since 2005, emissions from other road transport and passenger cars have fallen by 82% and 57% respectively.

The decrease in nitrogen oxides emissions from 2005 is primarily driven by the successive introduction of tighter exhaust emission standards for vehicles over the past few decades, and an increase in the number of vehicles compliant with the more recent Euro standards. It should be noted that the decrease in emissions in 2020 is likely due to travel restrictions during the COVID-19 pandemic resulting in reduced traffic volumes.

Energy industries have also had a notable impact on the trend, due to the implementation of abatement technologies, and, more recently, the reductions in the amount of coal used as operations at Kilroot power station begin to phase down.

Figure. 15. Nitrogen oxides emissions in Northern Ireland 2005-2023 (published September 2025)



Annex E - Publication of Responses

Confidentiality

DAERA will publish a summary of responses following completion of the public consultation. Your response, and all other responses to the consultation may be disclosed on request. The Department can refuse to disclose information only in exceptional circumstances. Before you submit your response, please read the paragraphs below on the confidentiality of consultations as these provide guidance on the legal position of any information given by you in response to this consultation. Any confidentiality disclaimer generated by your IT system in e-mail responses will not be treated as such a request.

Data Protection

Section 8 (e) of the Data Protection Act 2018 permits processing of personal data when necessary for an activity that supports or promotes democratic engagement. Information provided by respondents to this consultation exercise will be held and used for the purposes of the administration of this current exercise and subsequently disposed of in accordance with the provisions of the Data Protection Act 2018 and General Data Protection Regulation.

Freedom of Information

The Freedom of Information Act 2000 and Environmental Information Regulations 2004 give the public a right of access to any information held by a public authority (the Department in this case). This right of access to information includes information provided in response to a consultation. The Department cannot automatically consider as confidential information supplied to it in response to a consultation.

However, it does have the responsibility to decide whether any information provided by you in response to this consultation, including information about your identity, should be made public or treated as confidential. This means that information provided by you in response to the consultation is unlikely to be treated as confidential, except in very particular circumstances.

The Lord Chancellor’s Code of Practice on the Freedom of Information Act provides that:

- The Department should only accept information from third parties in confidence if it is necessary to obtain that information in connection with the exercise of any of the Department’s functions and it would not otherwise be provided.
- The Department should not agree to hold information received from third parties ‘in confidence’ which is not confidential in nature.
- Acceptance by the Department of confidentiality provisions must be for good reasons, capable of being justified to the Information Commissioner.

For further information about confidentiality of responses, please contact the Information Commissioner’s Office at its website www.ico.org.uk For information regarding your personal data please refer to the DAERA Privacy Statement at <https://www.daera-ni.gov.uk/publications/daera-privacy-statement-document>.

Annex F - Definitions

For this strategy the following definitions are taken from the UK AQS 2007⁶⁶:

Standards are the concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. Standards are based on assessment of the effects of each pollutant on human health including the effects on sensitive subgroups or on ecosystems. Standards, as the benchmarks for setting objectives, are set with regard to scientific and medical evidence on the effects of the particular pollutant on health, or, in the appropriate context, on the wider environment, as minimum or zero risk levels.

Objectives are policy targets, often expressed as a maximum ambient concentration not to be exceeded, either without exception or with a permitted number of exceedances, within a specified timescales. The same definition applies to long-term objectives (e.g. for ozone), but a timescale may not necessarily be specified.

Exposure reduction is the approach based on the principle that for pollutants with a low or zero threshold for adverse effects, it will generally be more beneficial to public health, and potentially more cost-effective to reduce pollutant levels across the whole population of an urban area or region rather than in a small area or “hotspot”.

Critical loads a quantitative estimate of an exposure to one or more pollutants below which significant effects on specific sensitive elements of the environment do not occur according to present knowledge, and where pollutants are deposited to land or water.

Other important terms are used in Northern Ireland air quality legislation. The following definitions are taken from Directive 2008/50/EC⁶⁷, as the Air Quality Regulations (NI) 2010 transpose this Directive and use these terms:

Limit value is a level fixed on the basis of scientific knowledge, with the aim of avoiding, preventing or reducing harmful effects on human health and/or the environment as a whole, to be attained within a given period and not to be exceeded once attained.

Target value is a level fixed with the aim of avoiding, preventing or reducing harmful effects on human health and/or the environment as a whole, to be attained where possible over a given period.

Information threshold is a level beyond which there is a risk to human health from brief exposure for particularly sensitive sections of the population and for which immediate and appropriate information is necessary.

⁶⁶ The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Volume 1, 2007, accessed 01/05/25 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf

⁶⁷ These definitions (limit value, target value, information threshold, and alert threshold) are taken from Directive 2008/20/EC and are used in the Air Quality Regulations (NI) 2010, in schedules 2, 3, & 5 respectively. <https://www.legislation.gov.uk/eudr/2008/50/contents>

Alert threshold is a level beyond which there is a risk to human health from brief exposure for the population as a whole and at which immediate steps are to be taken.

Air pollutants within the scope of this Strategy are defined in the Air Quality Standards Regulations (Northern Ireland) 2010⁶⁸ “pollutant” means any of the following—

(a) sulphur dioxide, (b) nitrogen dioxide, (c) oxides of nitrogen, (d) particulate matter, (e) lead, (f) benzene, (g) carbon monoxide, (h) arsenic, (i) cadmium, (j) mercury, (k) nickel, (l) benzo(a)pyrene or other polycyclic aromatic hydrocarbons, and (m) ozone. However, there are other pollutants that can harm human health.

There are many other definitions and terms in numerous air quality publications.

⁶⁸ The Air Quality Standards Regulations (Northern Ireland) 2010, accessed 06/05/26, <https://www.legislation.gov.uk/nisr/2010/188/contents/made>

Annex G - Glossary/Abbreviations

Table 6. Glossary and abbreviations used in this strategy

Abbreviations	Meaning
$\mu\text{g}/\text{m}^3$ or $\mu\text{g}\cdot\text{m}^{-3}$ or μgm^{-3}	Micrograms per cubic meter (unit of concentration for air pollutants)
μm	$1\mu\text{m} = 1$ micron = 1 millionth of a metre
Acidification	The decrease in pH of surface waters and soils
AQG	Air Quality Guidelines (from the WHO 2021 guidelines)
AQEG	Air Quality Expert Group
AQMA	Air Quality Management Area
AQS (NI) 2010	Air Quality Standards Regulations (Northern Ireland) 2010
B[a]P	Benzo[a]pyrene - a polycyclic aromatic hydrocarbon (PAH)
BAT	Best Available Techniques
BHF NI	British Heart Foundation Northern Ireland
C_6H_6	Benzene
CAFÉ Directive	Cleaner Air for Europe Directive 2008/50/EC
CO	Carbon monoxide
CO_2	Carbon dioxide
CLRTAP	Convention on Long-range Transboundary Air Pollution
DAERA	Department of Agriculture Environment and Rural Affairs (Northern Ireland)
DEFRA	Department for Environment Food and Rural Affairs (London)
DCEE	Department of Climate, Energy and the Environment in Ireland
DfE	Department for Economy (Northern Ireland)
DoH	Department of Health (Northern Ireland)
DfI	Department for Infrastructure (Northern Ireland)
EU	European Union
FAQDD	Fourth air quality daughter Directive (2004/107/EC)
IARC	The International Agency for Research on Cancer, which is part of the WHO
LAQM	Local Air Quality Management
LAQM PGNI (09)	Local Air Quality Management NI Policy Guidance 2009
LAQM (TG22)	Local Air Quality Management Technical Guidance 2022
MOT	Annual vehicle roadworthiness test
NAP	Nutrients Action Programme
NECD	National Emissions Ceilings Directive 2016/2284/EC
NH_3	Ammonia
NI	Northern Ireland
NICS	Northern Ireland Civil Service
NO	Nitric oxide
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxides - the sum of NO and NO_2

O ₃	Ozone
PAHs	Polycyclic aromatic hydrocarbons
Pb	Lead (metal)
PM	Particulate Matter
PM _{0.1}	Ultrafine particles smaller than 0.1 microns
PM ₁₀	Particulate matter with a diameter of less than 10 microns
PM _{2.5}	Particulate matter with a diameter of less than 2.5 microns
PN	Particulate number, a diesel emissions test on cars and light goods vehicles
Relevant authorities	A competent authority shall be a ‘relevant authority’ for the purposes of the Air Quality Regulations (Northern Ireland) 2003
SAP	Sustainable Agricultural Programme
SCA	Smoke Control Area
SO ₂	Sulphur dioxide
TOMPs	Toxic Organic Micro Pollutants
UK	United Kingdom
UK AQS 2007	Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007
UNECE	United Nations Economic Commission for Europe
VOC	Volatile Organic Compound
WHO	World Health Organisation
WHO 2021 guidelines	The WHO global air quality guidelines - Particulate matter (PM _{2.5} and PM ₁₀), ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide

Annex H Strategic alignment, Directives and International Treaties

Interacting and supporting policies

Climate Change and Climate Action Plans

While there are some common sources of pollutants, air quality is distinct from climate change. However, an air quality target is included in the draft Climate Action Plan⁶⁹ (CAP), which is required under the Climate Change Act (Northern Ireland) 2022⁷⁰.

It is important to note that air quality is different from climate change and net-zero. For example, biomass is known as a renewable energy source, but it is also a type of solid fuel so burning it releases smoke, particulate matter and other pollutants during combustion which are carcinogenic, dangerous for human health and adversely affect the environment.

The UK Committee on Climate Change produced a report⁷¹, which examined carbon emissions from a range of sectors in Northern Ireland and recommends that, ‘Biomass for heating in urban areas should not be supported due to air quality concerns’. Furthermore, the Royal Society⁷², highlights that, ‘Combustion of biomass has the potential to lead to reduced net greenhouse gas emissions relative to fossil fuels, but could lead to air pollutant emissions, especially particulate matter with a diameter less than 2.5µm (PM_{2.5})’. Nevertheless, synergies exist between air quality and climate change and net-zero. Decreasing energy production from combustion of fuels in favour of some renewable methods such as wind or solar power leads to lower emissions of air pollutants as well as carbon dioxide (CO₂).

Air Quality Provisional Common Framework

At national level, the UK Air Quality: Provisional Common Framework⁷³ sets out how the UK government and devolved governments propose to work together on air quality policy. A second Common Framework, covering industrial emissions, is also important, the Integrated pollution prevention and control: developing and setting of Best Available Techniques (BAT) provisional

⁶⁹ In 2026 DAERA will consult on an annual average air quality limit/objective of 20 µg/m³ for PM₁₀ and 10 µg/m³ for PM_{2.5} in line with World Health Organisation Air Quality Guidelines Interim Target 4. In addition to this the annual average target value for PM_{2.5} will be reduced to 8 µg/m³. These tighter limits, objectives and targets are to be achieved at each individual monitoring station and will be set out in new secondary legislation which will amend the Air Quality Standards Regulations (Northern Ireland) 2010 and Air Quality Regulations (Northern Ireland) 2003 with compliance to be achieved by 1 January 2028.

⁷⁰ The Climate Change Act (Northern Ireland) 2022, accessed 30/04/26,
<https://www.legislation.gov.uk/nia/2022/31/enacted>

⁷¹ Reducing emissions in Northern Ireland, Committee on Climate Change, 2019, accessed 06/05/26,
<https://www.theccc.org.uk/wp-content/uploads/2019/02/Reducing-emissions-in-Northern-Ireland-CCC.pdf>

⁷² Effects of net-zero policies and climate change on air quality, The Royal Society, 2021, accessed 06/05/26,
<https://royalsociety.org/-/media/policy/projects/air-quality/air-quality-and-climate-change-report.pdf>

⁷³ GOV.UK, Air quality: provisional common framework, accessed 05/06/25,
<https://www.gov.uk/government/publications/air-quality-provisional-common-framework>

common framework⁷⁴. The Framework is intended to facilitate multilateral policy development and is a non-legislative mechanism which outlines how the UK Government and Devolved Administrations will work together on air quality policy following the UK’s exit from the EU.

Programme for Government 2024-2027

The ‘Programme for Government 2024-2025 Our Plan: Doing What Matters Most’⁷⁵ includes a Wellbeing Framework, which has been designed to identify areas of concern and help identify if projects and programmes are working for everyone. Within the ‘Cleaner Environment’ domain there is an indicator for air quality, based on annual mean roadside levels of nitrogen dioxide as measured by micrograms per cubic metre ($\mu\text{g}/\text{m}^3$), which is indicative of air pollution in urban centres from road vehicles.

Draft Green Growth Strategy

DAERA has developed a draft Green Growth Strategy⁷⁶ for Executive approval which sets out a long-term vision and framework for a future where Northern Ireland transitions from being a high to a net zero emissions society; where we can enjoy a low carbon, nature positive future reaping the advantages from jobs in a thriving green sector. The concept of Green Growth, and subsequently the aim of the Green Growth Strategy once agreed, is to find a workable balance between the three pillars of Climate, Environment and the Economy. The key delivery vehicle of the Environment pillar contained within the Green Growth Strategy is Northern Ireland’s first Environmental Improvement Plan which provides a coherent and effective set of interventions that can collectively deliver real improvements in the quality of the environment. The draft Green Growth Strategy supports the outcomes set out in the Environmental Improvement Plan.

Environmental Improvement Plan

The Environmental Improvement Plan⁷⁷ (EIP) supports the Northern Ireland Executive’s Green Growth agenda and was approved by the Executive in September 2024. Through six Strategic Environmental Outcomes, this Plan outlines the approach to our local environmental challenges, including air, water and land quality; healthy landscapes; thriving nature and wildlife; sustainable production; circular economy and climate change. While the EIP focuses on local approaches, it also provides the framework by which Northern Ireland meets its responsibilities in national targets set out in the UK Environment Strategy as well as UK international commitments on air quality. The Northern Ireland Clean Air Strategy will be a key tool in achieving several of the plan’s aims, in particular the reduction of greenhouse gases and restoration of habitats and species.

Northern Ireland Ammonia Strategy

⁷⁴ GOV.UK, Integrated pollution prevention and control: developing and setting of Best Available Techniques (BAT) provisional common framework, accessed 06/05/25, <https://www.gov.uk/government/publications/integrated-pollution-prevention-and-control-developing-and-setting-of-best-available-techniques-bat-provisional-common-framework>

⁷⁵ Northern Ireland Executive, Programme for Government 2024-2027, accessed 06/05/25, [Programme for Government 2024-2027 ‘Our Plan: Doing What Matters Most’ | The Northern Ireland Executive](https://www.daera-ni.gov.uk/articles/green-growth-strategy-northern-ireland-balancing-our-climate-environment-and-economy)

⁷⁶ DAERA Draft Green Growth Strategy, accessed 30/04/26, <https://www.daera-ni.gov.uk/articles/green-growth-strategy-northern-ireland-balancing-our-climate-environment-and-economy>

⁷⁷ DAERA, Environmental Improvement Plan for Northern Ireland, accessed 06/05/26, <https://www.daera-ni.gov.uk/publications/environmental-improvement-plan-northern-ireland>

Nitrogen is essential for our agricultural systems and food production, however as a result of many agricultural activities, it can form ammonia gas which is emitted into the air. Excess nitrogen and ammonia can have negative impacts on the environment, and also on human health through the formation of secondary particulate matter. The draft Ammonia Strategy⁷⁸ has been developed to help plan the way forward to reduce ammonia emissions from agriculture and recognises the need to help farm businesses thrive and be sustainable while at the same time protecting our environment and human health.

Ongoing work in parallel with the development of this strategy

A considerable amount of work to improve air quality in Northern Ireland has taken place in parallel with the development of this strategy. This has included expansion of the air quality monitoring network⁷⁹ with additional monitoring for PM_{2.5} (increased PM_{2.5} monitors from three to ten between November 2020 and September 2025), PM₁₀ (now 13 monitors in total), PAHs, Toxic Organic Micro Pollutants (TOMPs), while a range of portable monitors are now in use. Work is progressing to consult on tighter PM_{2.5} and PM₁₀ annual averages in line with WHO Interim Target 4, ensuring Northern Ireland is leading the way on this harmful pollutant. DAERA staff have delivered Clean Air Day Primary Schools Campaign talks to thousands of local school children and have updated the NI Air website to make it more user-friendly, as well as making it easier to access the data. DAERA now publishes additional information on air quality in Northern Ireland, and how our monitored air quality compares to WHO 2021 guidelines⁸⁰ as of September 2022. This is in addition to identifying regulatory compliance.

The Local Air Quality Monitoring (LAQM) Grant, supported by DAERA Carrier Bag Levy funding, has been revised and has offered over £748,000 of funding to Northern Ireland’s District Councils in the 2024/2025 and 2025/2026 years alone. The LAQM grant is currently funded by the Carrier Bag Levy and makes funding available to District Councils to monitor, assess, review and manage air quality across Northern Ireland through the LAQM regime.

Directives and International Treaties

The National Emissions Ceilings Directive 2016/2284/EC (NECD)⁸¹

The Cleaner Air for Europe Directive 2008/50/EC (CAFÉ Directive)⁸²

⁷⁸ Draft Ammonia Strategy for Northern Ireland Consultation, accessed 30/04/26, <https://www.daera-ni.gov.uk/consultations/draft-ammonia-strategy-northern-ireland-consultation>

⁷⁹ DAERA Northern Ireland Air, Summary of monitoring sites, accessed 06/05/26, <https://www.airqualityni.co.uk/home/summary>

⁸⁰ 2021 World Health Organisation (WHO) Global Air Quality Guidelines, accessed 06/05/26, <https://iris.who.int/bitstream/handle/10665/345329/9789240034228-eng.pdf?sequence=1>

⁸¹ National Emissions Ceilings Directive (NECD), Directive (EU) 2016/2284 of the European Parliament and of the Council, accessed 06/05/26, <https://www.legislation.gov.uk/eudr/2016/2284/contents>

⁸² CAFÉ Directive, Directive 2008/50/EC of the European Parliament and of the Council, accessed 06/05/26 <https://www.legislation.gov.uk/eudr/2008/50/contents>

The Fourth Air Quality Daughter Directive 2004/107/EC (FAQDD)⁸³

Regulations that implement international commitments under the United Nations Economic Commission for Europe (UNECE) Convention on Long-range Transboundary Air Pollution (CLRTAP)⁸⁴

The 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol)⁸⁵

The 2002 Protocol Pollutant Release and Transfer Registers (Kiev Protocol)⁸⁶

The 1998 UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention)⁸⁷

Directive 2010/75/EU on Industrial emissions standards and best available techniques⁸⁸

This list is not exhaustive.

⁸³ The Fourth Air Quality Daughter Directive (FAQDD), Directive 2004/107/EC of the European Parliament and of the Council, accessed 06/05/26 <https://www.legislation.gov.uk/eudr/2004/107/contents>

⁸⁴ 1979 Convention on Long-Range Transboundary Air Pollution, accessed 06/05/26, <https://unece.org/sites/default/files/2021-05/1979%20CLRTAP.e.pdf>

⁸⁵ The 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol), accessed 06/05/26, <https://unece.org/environmental-policy/air/protocol-abate-acidification-eutrophication-and-ground-level-ozone>

⁸⁶ Protocol on Pollution Release and Transfer Registers 2003, accessed 06/05/26, https://treaties.un.org/doc/source/RecentTexts/27_13aE.pdf

⁸⁷ The 1998 UNECE Aarhus Convention, accessed 06/05/26, <https://unece.org/DAM/env/pp/documents/cep43e.pdf>

⁸⁸ Directive 2010/75/EU on Industrial emissions standards and best available techniques, accessed 06/05/26, <https://www.legislation.gov.uk/eudr/2010/75/contents>

Annex I - Northern Ireland pollutants, limits, targets and objectives in existing legislation

Table 7. the Air Quality Standards Regulations (Northern Ireland) 2010 - Limit values, exposure reduction, target values, and alert threshold, information threshold, and averaging time⁸⁹

<i>Pollutant</i>	<i>Averaging period</i>	<i>Limit value</i>
Sulphur dioxide	One hour	350 µg/m ³ not to be exceeded more than 24 times a calendar year
Sulphur dioxide	One day	125 µg/m ³ not to be exceeded more than 3 times a calendar year
Nitrogen dioxide	One hour	200 µg/m ³ not to be exceeded more than 18 times a calendar year
Nitrogen dioxide	Calendar year	40 µg/m ³
Benzene	Calendar year	5 µg/m ³
Carbon monoxide	Maximum daily eight hour mean	10 mg/m ³
Lead	Calendar year	0.5 µg/m ³
PM ₁₀	One day	50 µg/m ³ not to be exceeded more than 35 times a calendar year
PM ₁₀	Calendar year	40 µg/m ³
PM _{2.5}	Calendar year	25 µg/m ³
<i>Pollutant</i>	<i>Averaging period</i>	<i>Exposure reduction</i>
PM _{2.5}	Calendar year	20 µg/m ³
<i>Pollutant</i>	<i>Averaging period</i>	<i>Target value</i>
Arsenic	Total content in the PM ₁₀ fraction averaged over a calendar year	6 ng/m ³
Cadmium	Total content in the PM ₁₀ fraction averaged over a calendar year	5 ng/m ³

⁸⁹ The Air Quality Standards Regulations (Northern Ireland) 2010, accessed 06/05/26, <https://www.legislation.gov.uk/nisr/2010/188/contents/made>

Nickel	Total content in the PM ₁₀ fraction averaged over a calendar year	20 ng/m ³
Benzo(a)pyrene	Total content in the PM ₁₀ fraction averaged over a calendar year	1 ng/m ³
Ozone (Objective, Protection of human health)	Maximum daily eight hour mean	120 µg/m ³ not to be exceeded on more than 25 days per calendar year averaged over three years
Ozone (Objective, Protection of vegetation)	May to July	AOT 40 ⁹⁰ (calculated from 1h values) 18,000 µg/m ³ .h averaged over five years
PM _{2.5}	Calendar year	25 µg/m ³
Long term objectives for ozone (Objective, Protection of human health)	Maximum daily eight hour mean within a calendar year	120 µg/m ³
Long term objectives for ozone (Objective, Protection of vegetation)	May to July	AOT 40 (calculated from 1h values) 6000 µg/m ³ .h.

Information and alert thresholds

Pollutant	Detail	Alert threshold
Sulphur dioxide		500 µg/m ³
Nitrogen dioxide	To be measured over three consecutive hours at locations representative of air quality over the least 100 km ² or an entire zone, whichever is smaller	400 µg/m ³
Ozone	Averaging period 1 hour	240 µg/m ³

⁹⁰ AOT 40 (expressed in (µg/m³) · hours) means the sum of the difference between hourly concentrations greater than 80 µg/m³ (= 40 parts per billion) and 80 µg/m³ over a given period using only the one-hour values measured between 8.00 and 20.00 Central European Time (CET) each day.

<i>Pollutant</i>	<i>Detail</i>	<i>Information threshold</i>
Ozone	Averaging period 1 hour	180 µg/m ³

Critical levels for the protection of vegetation

<i>Pollutant</i>	<i>Level</i>	<i>Averaging time</i>
Oxides of nitrogen (NO _x)	30 µg/m ³	One calendar year
Sulphur dioxide (SO ₂)	20 µg/m ³	Calendar year and winter (1 st October to 31 st March)

Table 8. Pollutants and Objectives from the UK AQS 2007⁹¹ and the Air Quality Regulations (Northern Ireland) 2003⁹²

<i>Pollutant</i>	<i>Averaging period</i>	<i>Objective</i>
Sulphur dioxide	15 minute mean	266µg.m ⁻³ not to be exceeded more than 35 times a year
Sulphur dioxide: Protection of vegetation & ecosystems	Annual mean	20µg.m ⁻³
	Winter average	20µg.m ⁻³
Nitrogen oxides: Protection of vegetation & ecosystems	Annual mean	30µg.m ⁻³
Benzene	Running annual mean	3.25µg.m ⁻³
Lead	Annual mean	0.25µg.m ⁻³
PM ₁₀	24 hour mean	50µg.m ⁻³ not to be exceeded more than 35 times a year
PM ₁₀	Annual mean	40µg.m ⁻³
PM _{2.5}	Annual mean	20 µg.m ⁻³
PM _{2.5} Exposure Reduction	Annual mean	25µg.m ⁻³ (by 2020)

⁹¹ The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Volume 1, 2007, accessed 01/05/25
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf

⁹² Air Quality Regulations (Northern Ireland) 2003, accessed 07/-5/26,
<https://www.legislation.gov.uk/nisr/2003/342/contents/made>

PM _{2.5} Exposure Reduction (Urban areas)	Annual mean	Target of 15% reduction in concentrations at urban background (by 2020)
Polycyclic aromatic hydrocarbons	As annual average	0.25ng.m ⁻³ B[a]P European obligations, target of 1ng.m ⁻³
1,3- butadiene	Running annual mean	2.25µg.m ⁻³
Ozone	8 hour mean	100µg.m ⁻³ not to be exceeded more than 10 times a year

For further information:

DAERA
Air and Environmental Quality Branch
Clare House
303 Airport Road West
Belfast
BT3 9ED

Email: casni@daera-ni.gov.uk

Website: www.airqualityni.co.uk

INVESTORS IN PEOPLE®
We invest in people Standard